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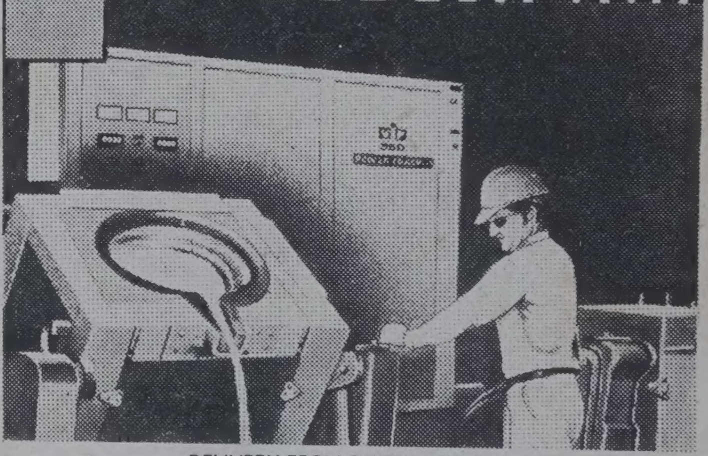

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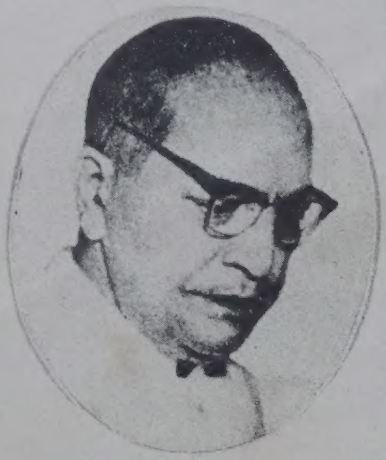

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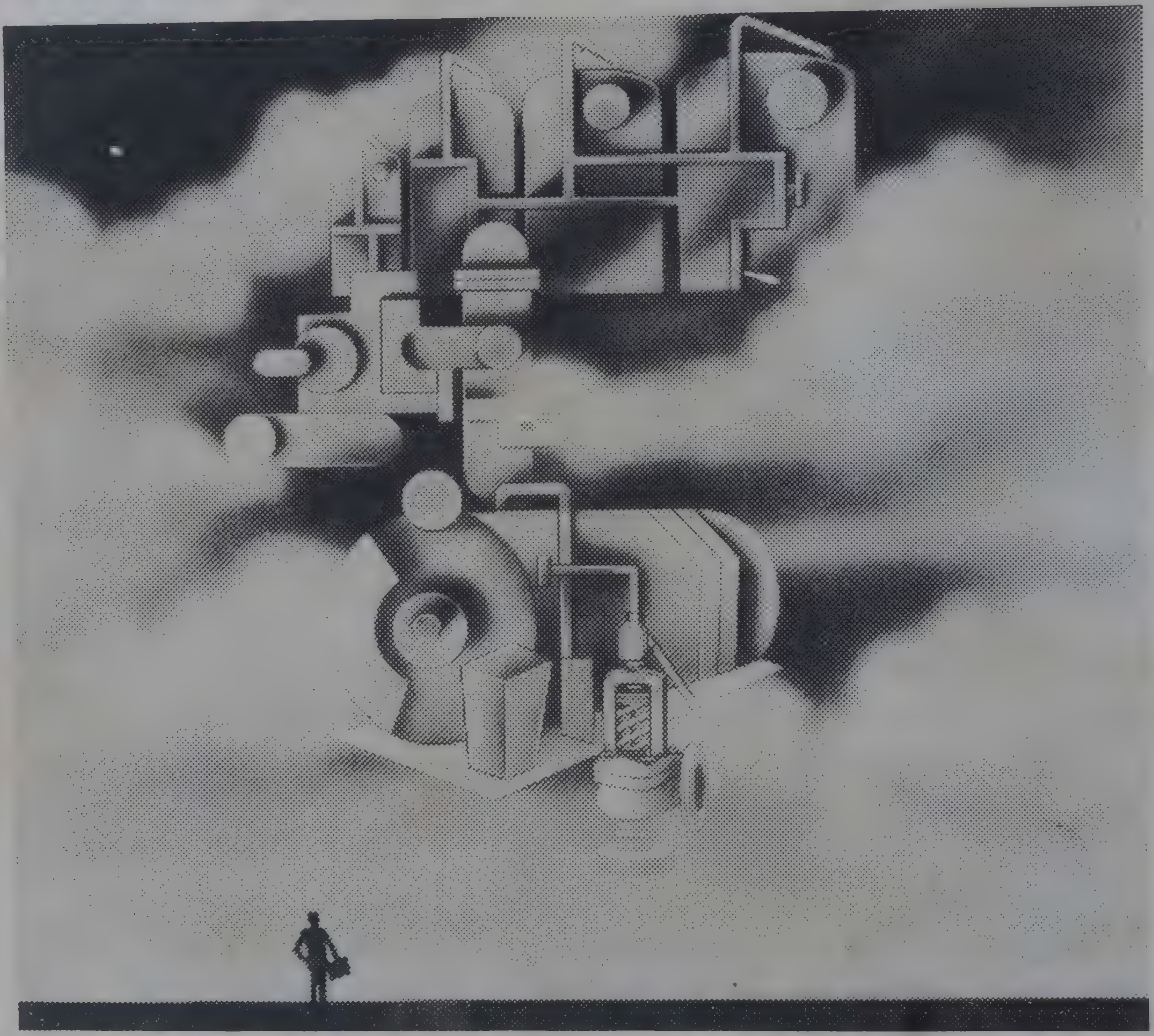

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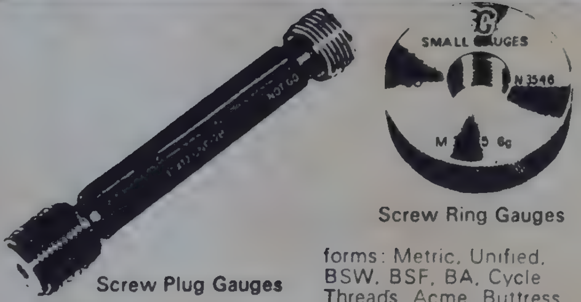

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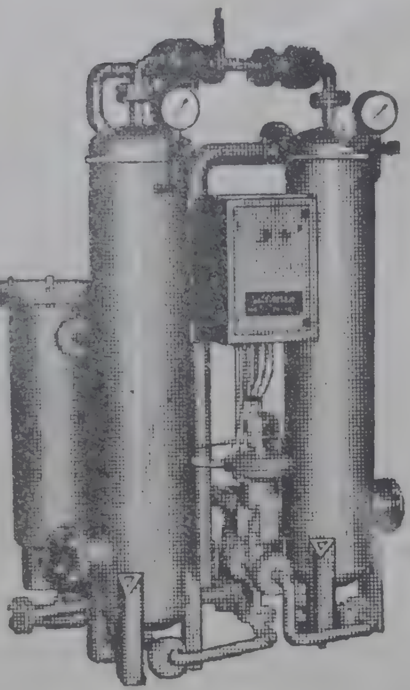

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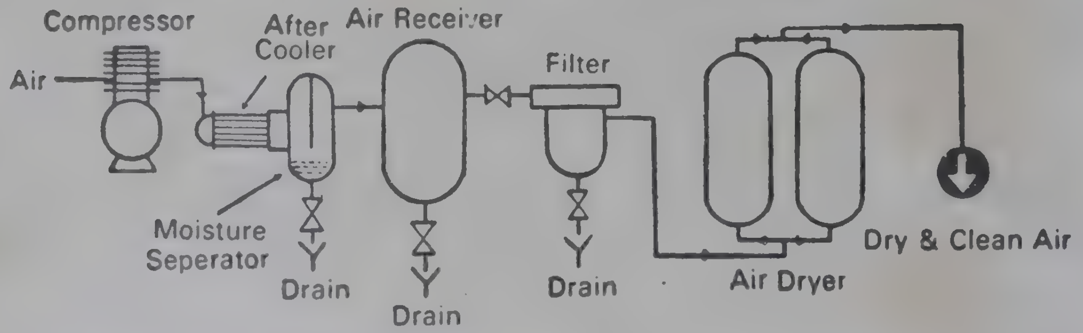

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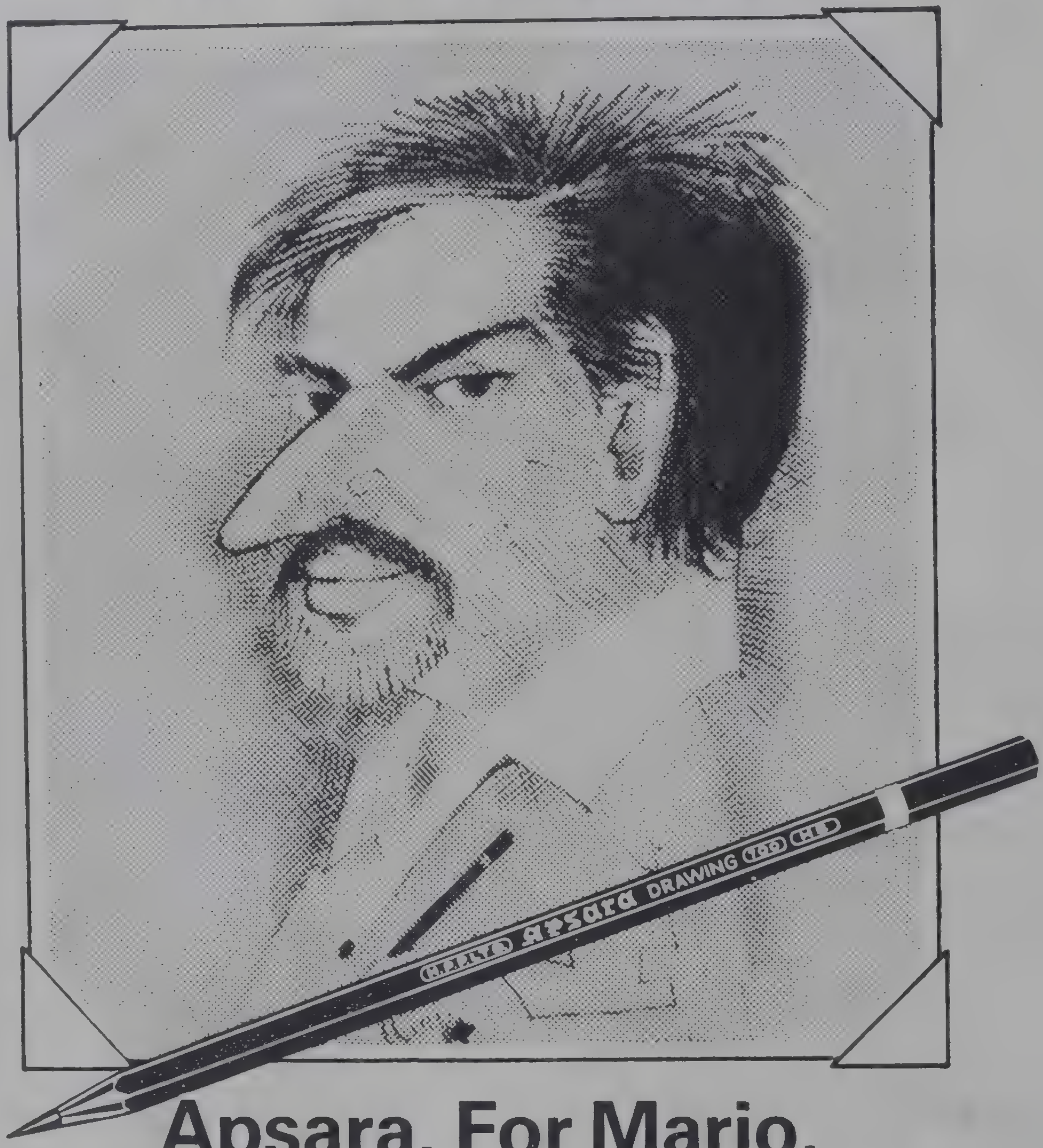

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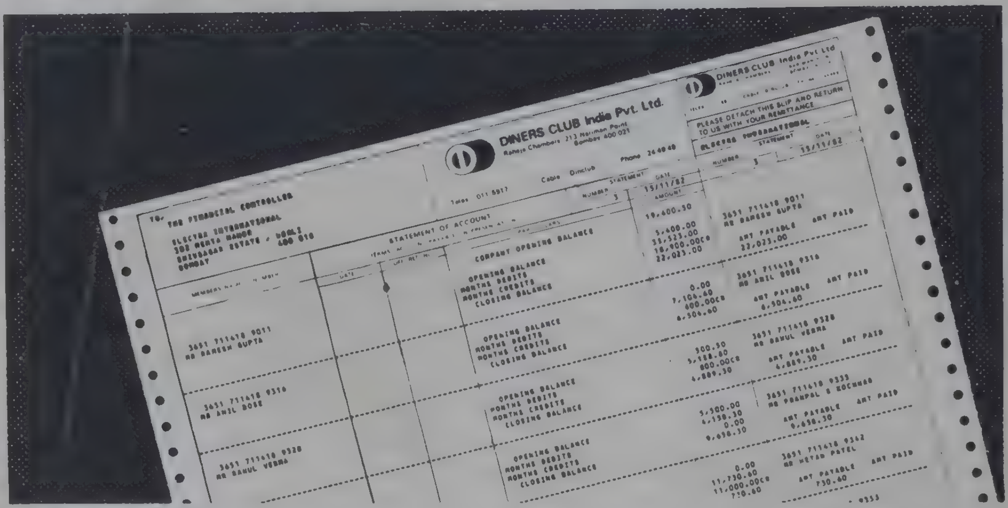
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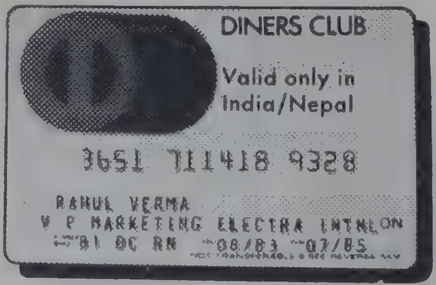

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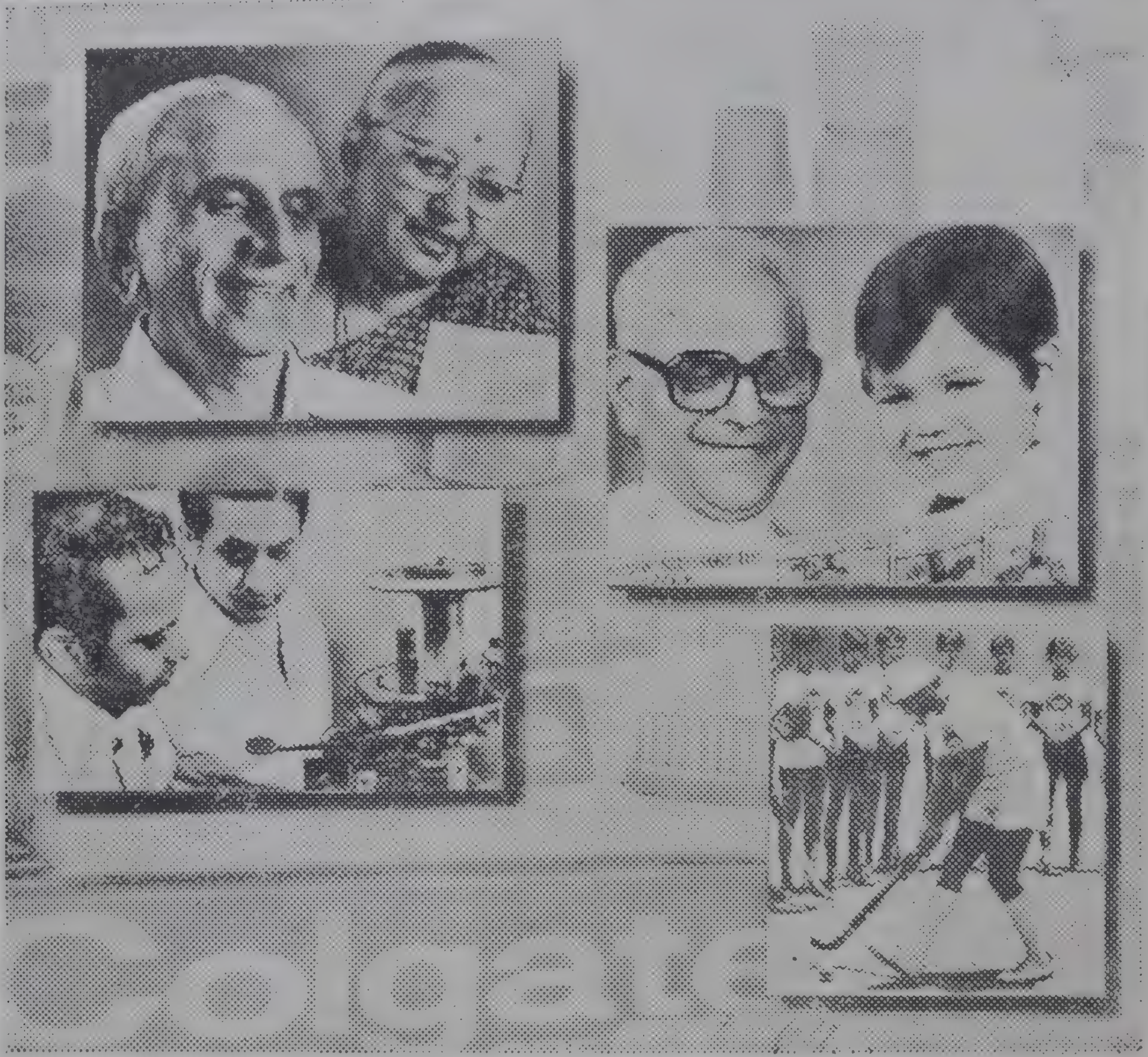

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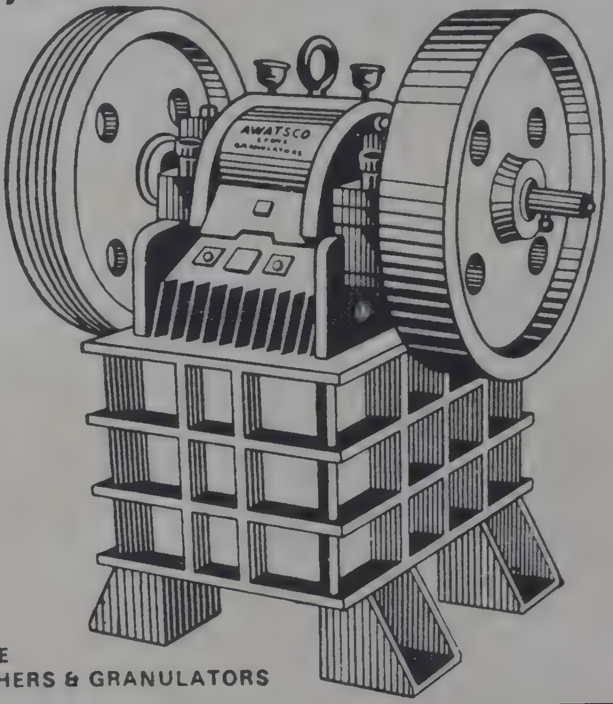

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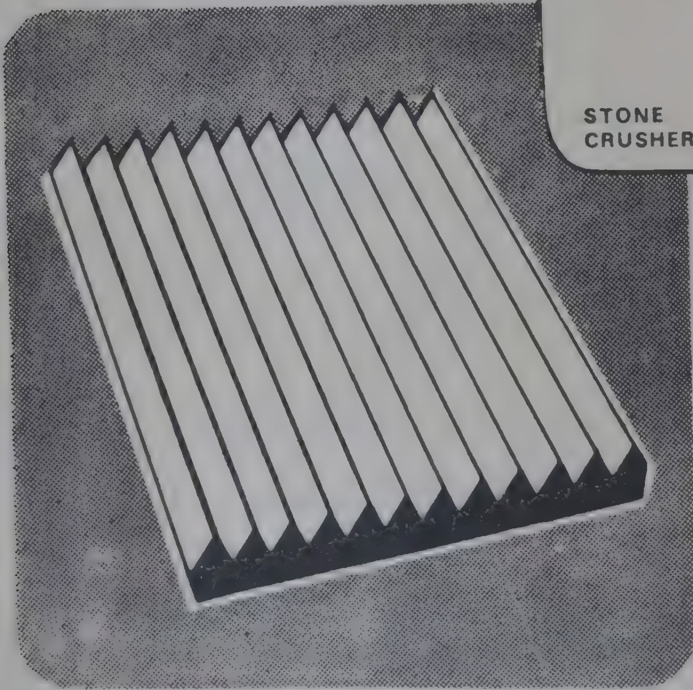

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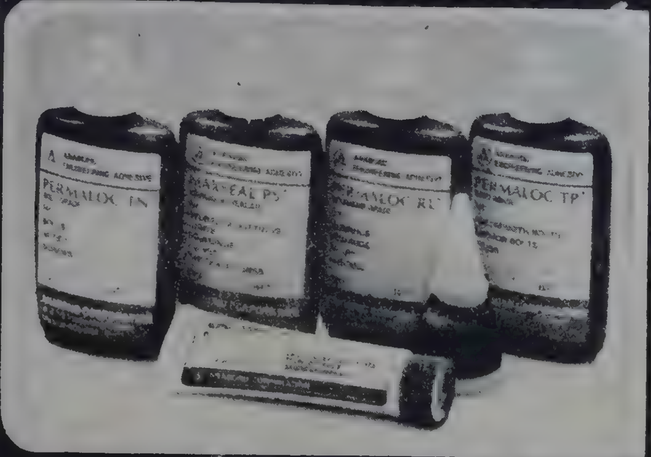

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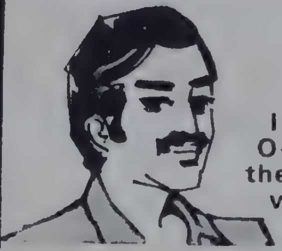

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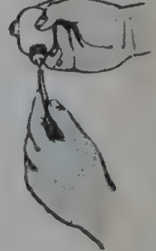

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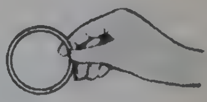

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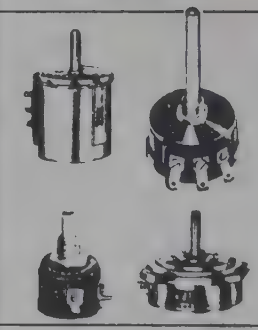

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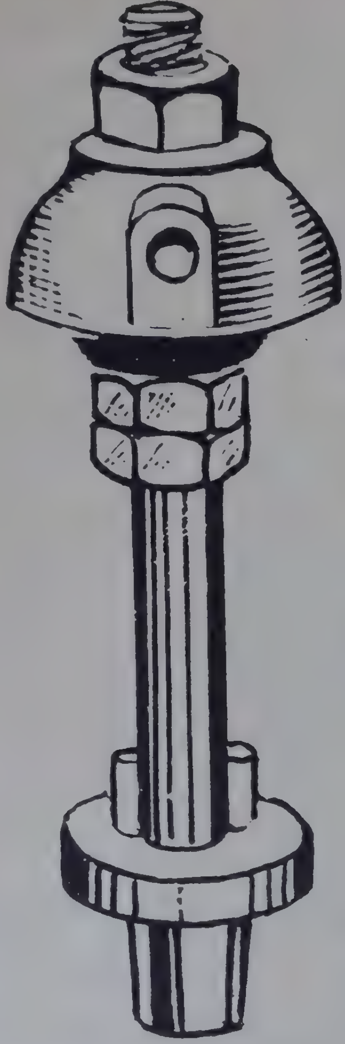

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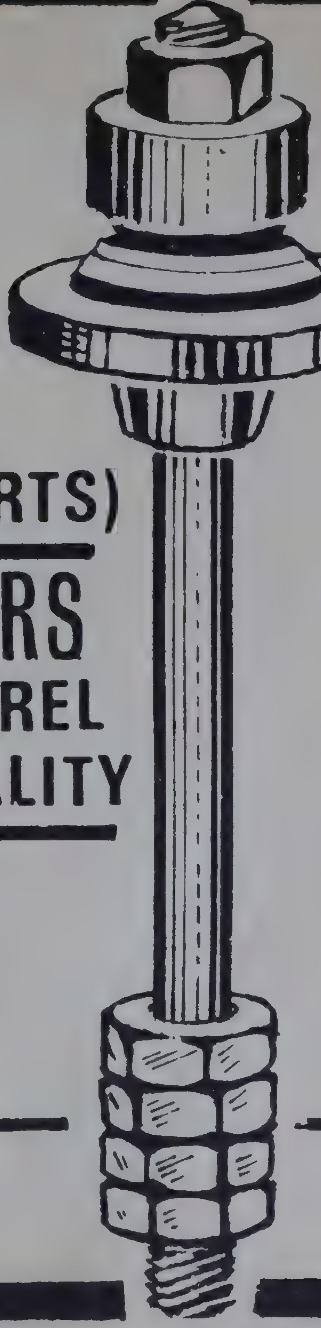

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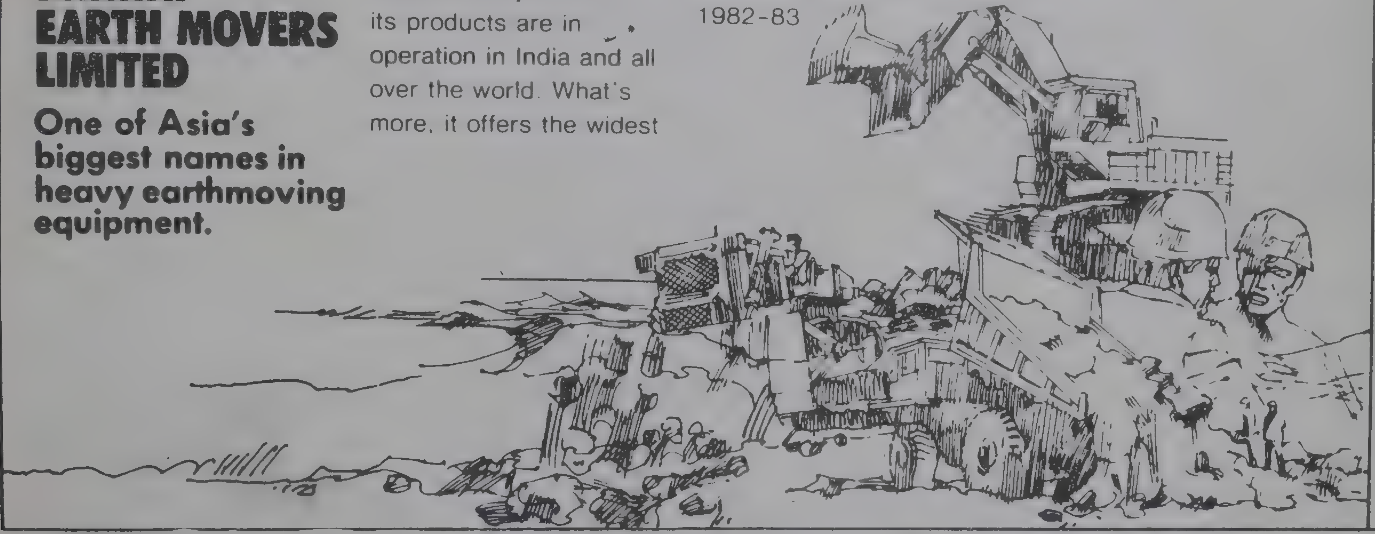

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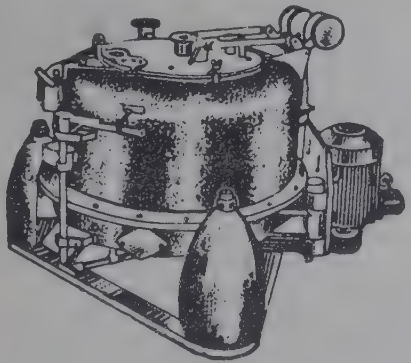

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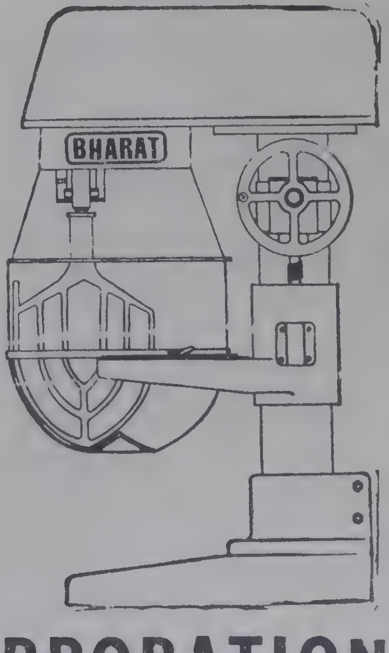

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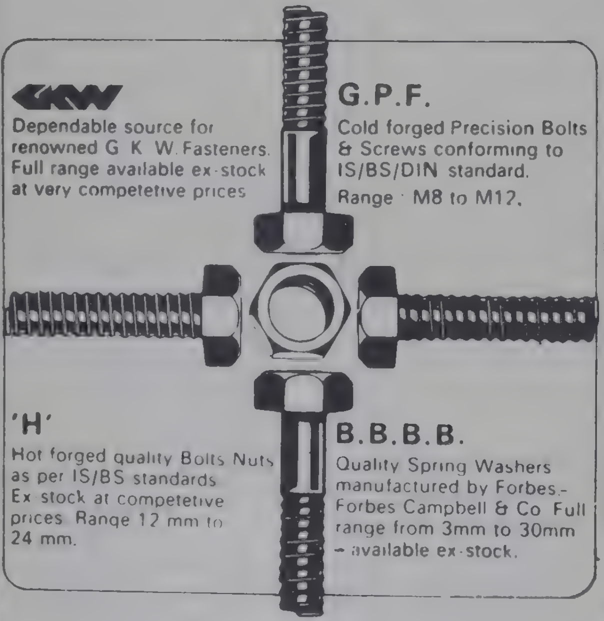

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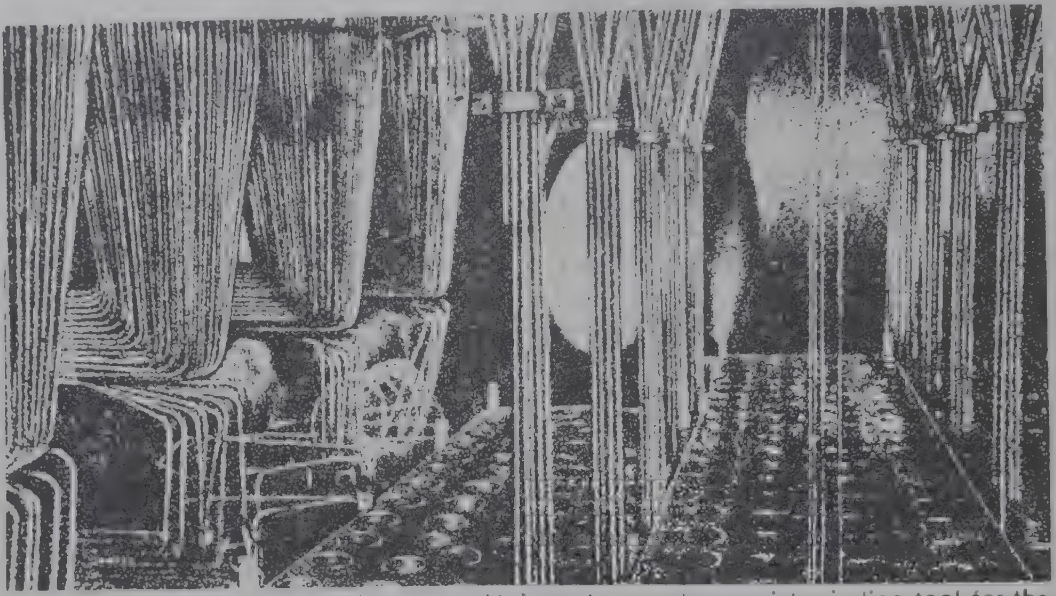

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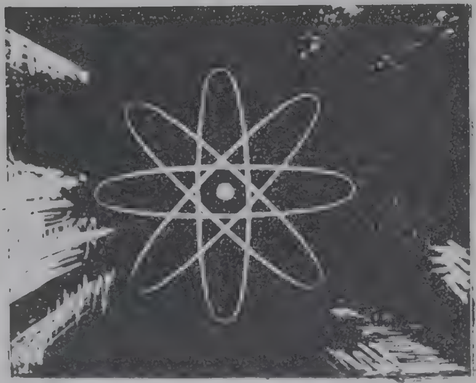

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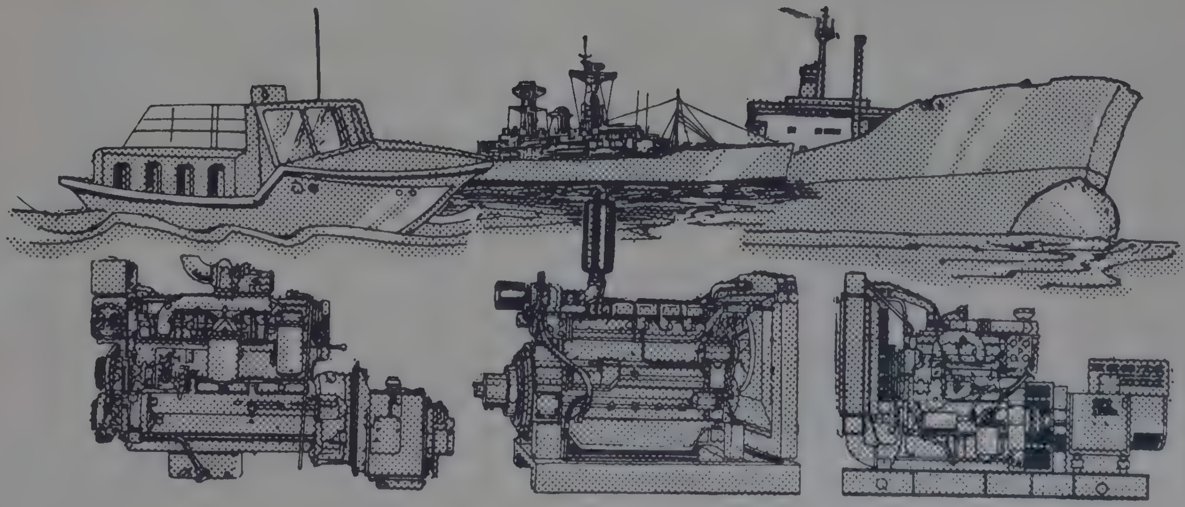

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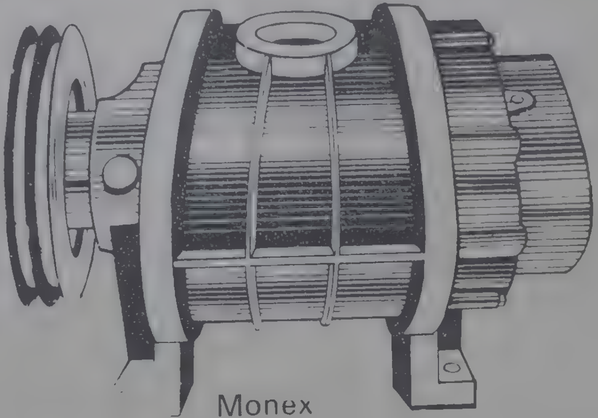

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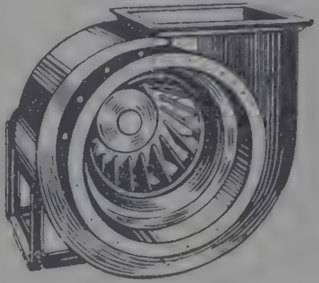

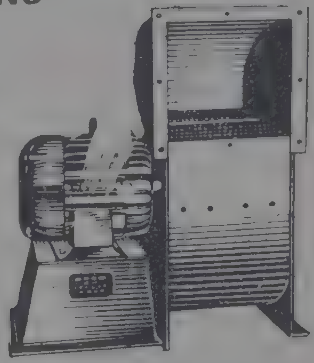

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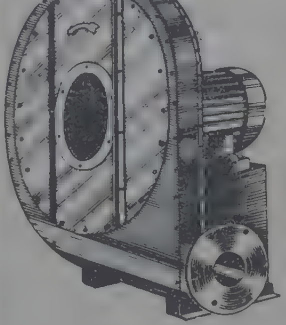

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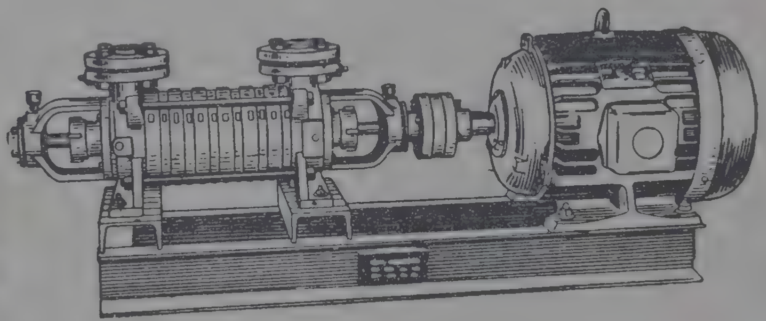

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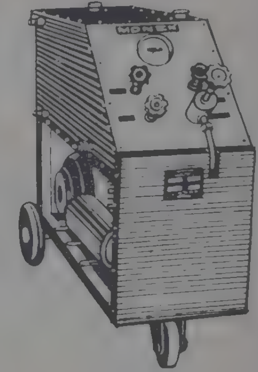

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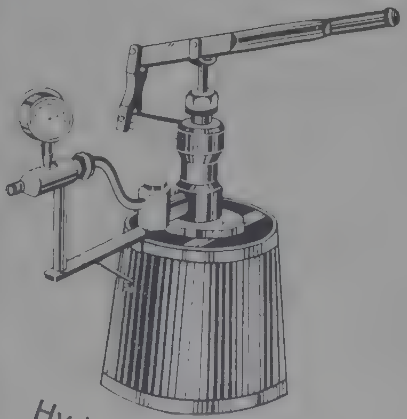

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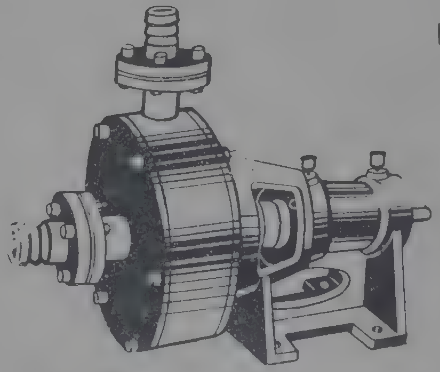

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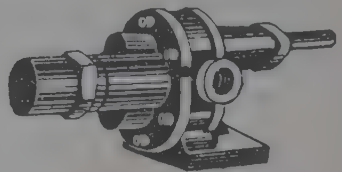

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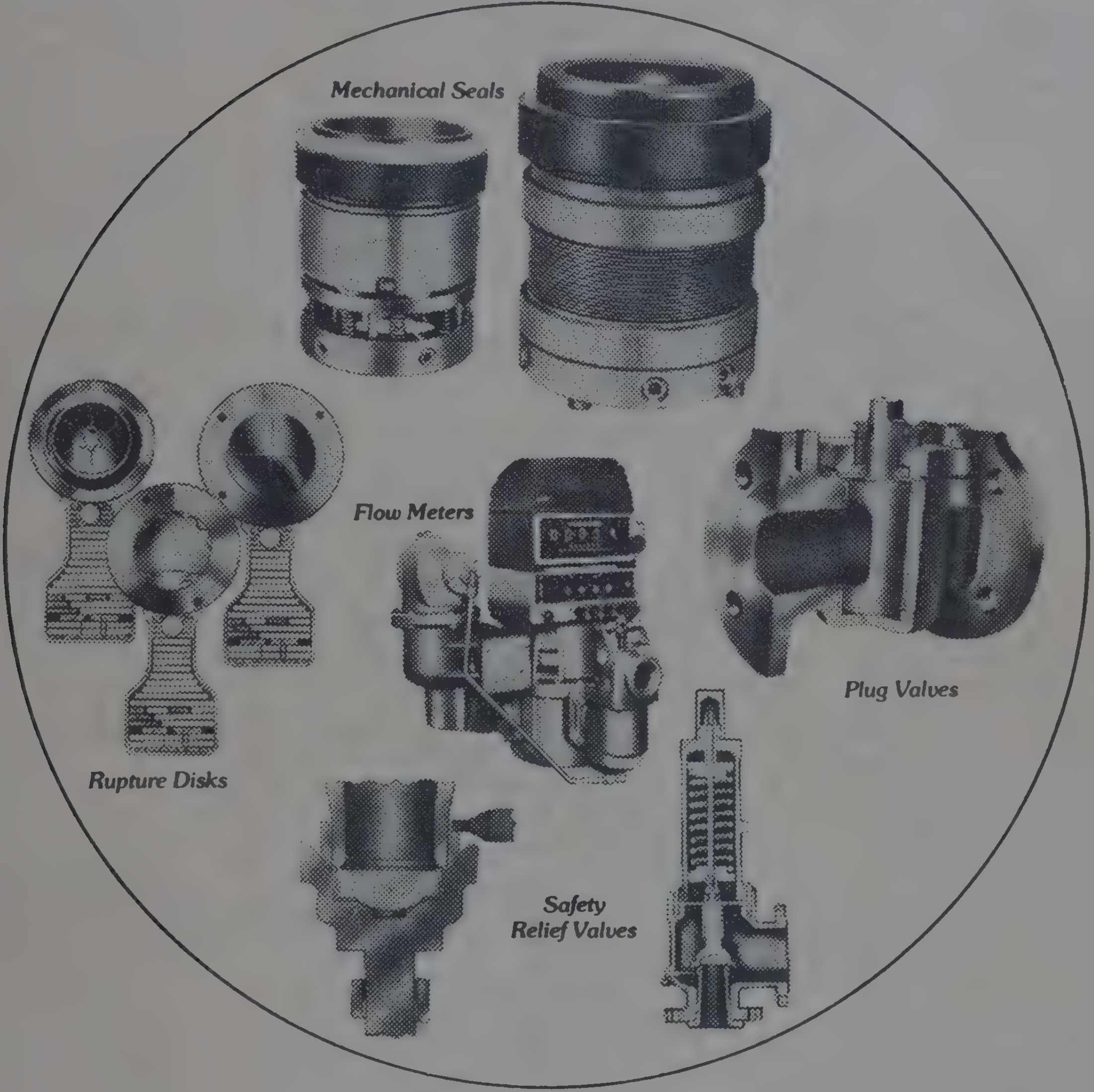

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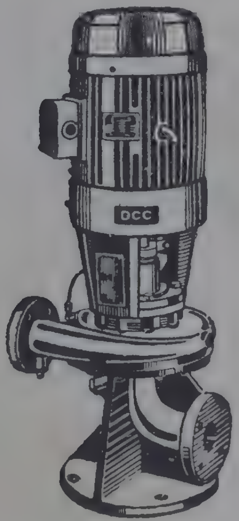

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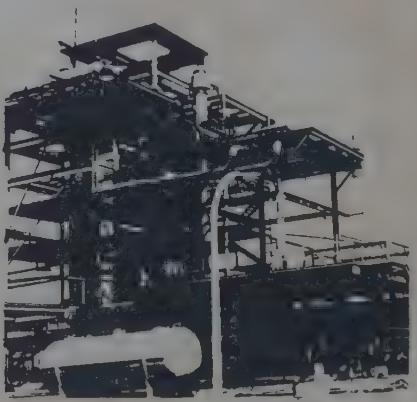

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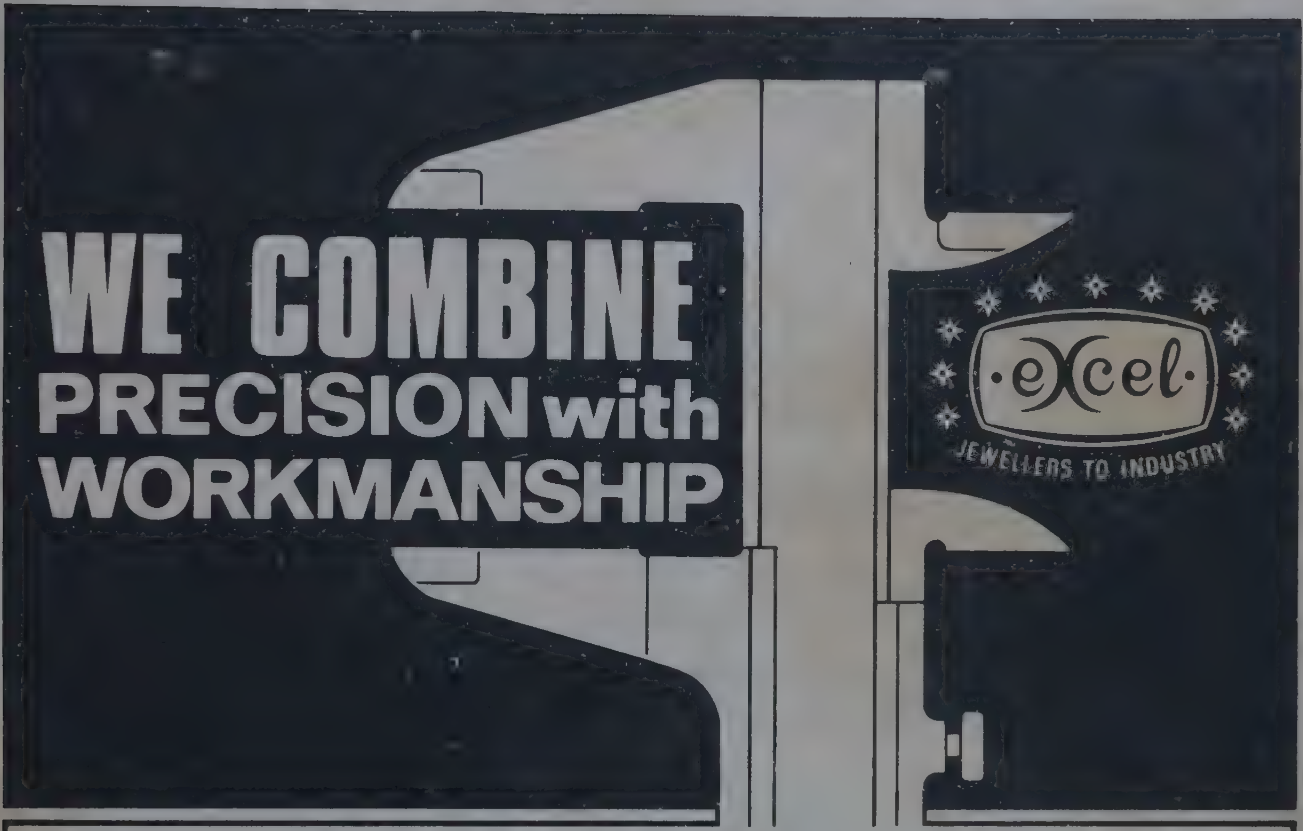

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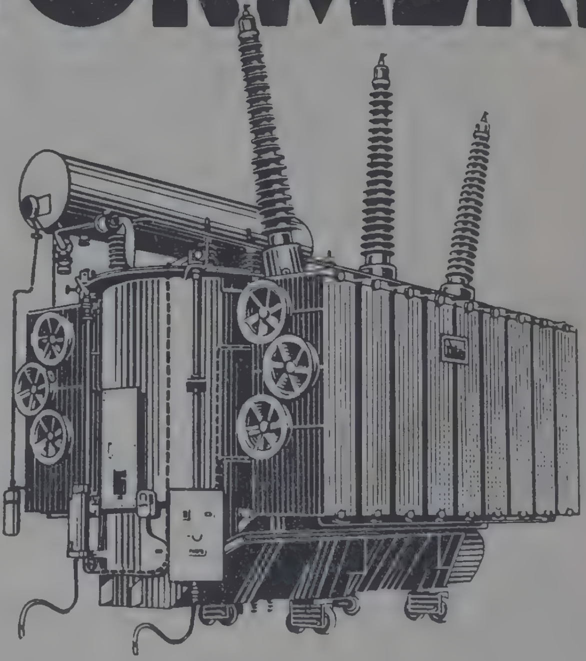

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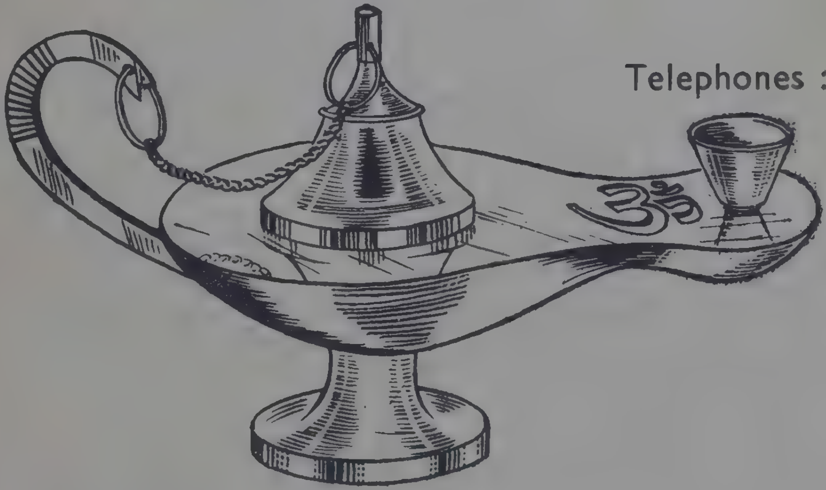

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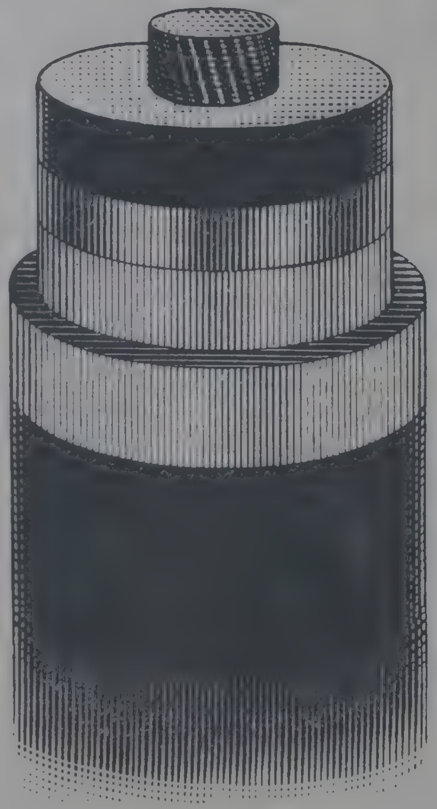

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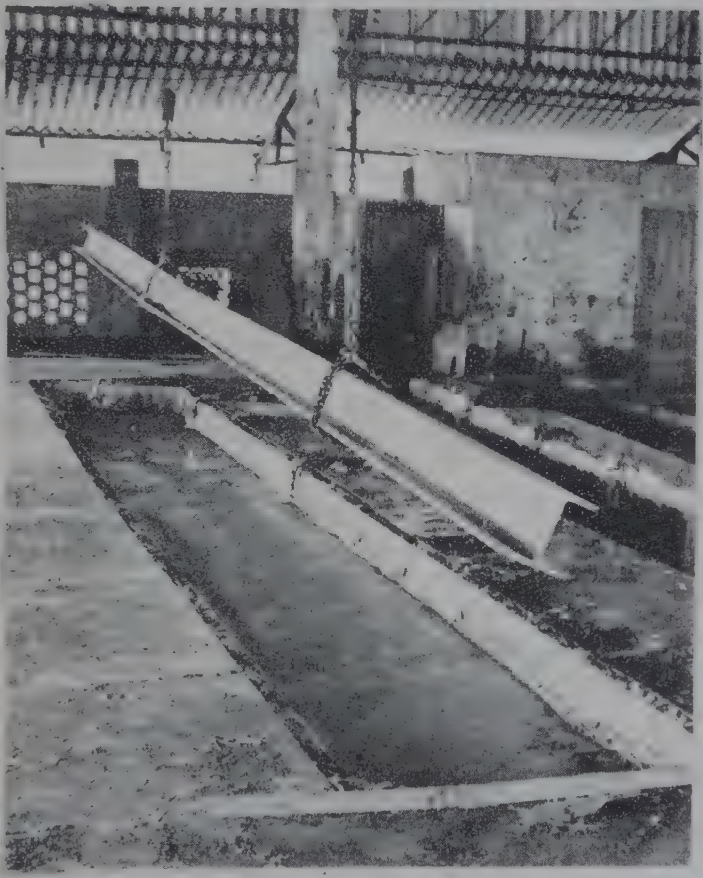

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Pooja timings : 3 A.M. to 12-30 P.M. and 4-30 P.M. to 9-30 P.M.

Offerings :—The costliest offering on the schedule is Udayasthamana pooja. It consists of 21 special poojas and costs above Rs. 8,000. The other important offerings are Laksha Deepam Rs. 3,000, Ahassu Rs. 1,500, Namaskaram Rs. 1,200, Athazham Rs. 1,000 and Feeding of Elephants Rs. 1,250. Some of the common offerings are briefly described below:—

Tulabharam :—Devotees pray for favours from the Lord and in return vow to gift to the temple articles such as sugar, fruits, milk, butter etc. equal to their body weight.

Annaprasam :—The child is fed for the first time with the rice offered to the Lord to protect against starvation.

Marriage :—The couple exchange garlands and rings from the Kalyanamandapam in front of the temple for a happy married life.

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Prasada Oottu: Free food to 150 pilgrims is given by the Devaswom daily. In addition, poor feeding is also done daily.

Important Festivals :—Ashtami — Rohini — Birthday of Sree Krishna (August-September), Guruvayur Ekadasi (December). The Ekadasi celebrations begin 30 days in advance. Chembai music festival is conducted during the last four days of the festival. **Annual Ulsavam :**—(February-March). The festival lasts for 10 days. The most remarkable features of the festival are Anayottam (elephant race) on the inaugural day, the grand Ulsavabali on the eighth, the Pallivetta on the ninth and the Arattu on the final day.

Elephant camp at Punnathurkotta :—The Devaswom is maintaining 36 elephants of its own. The elephants are stationed at Punnathurkotta which is 4 km. from Guruvayur. Pilgrims are permitted to visit the place and see the elephants.

Other Institutions :—

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Vadya Vidyalayam: Training given to students in temple musical instruments.
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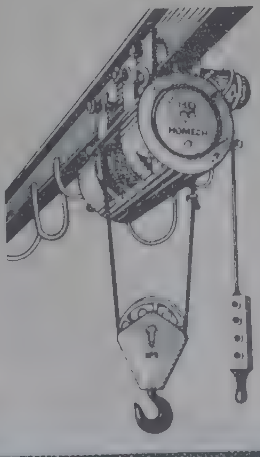

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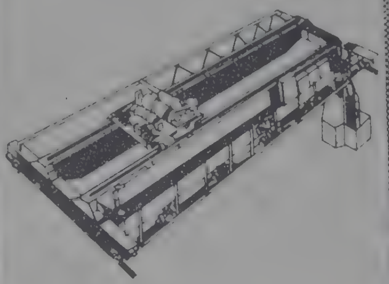

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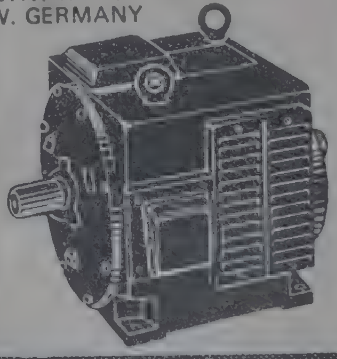

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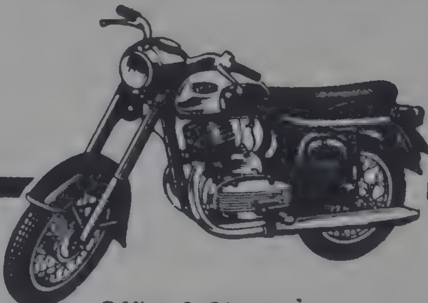

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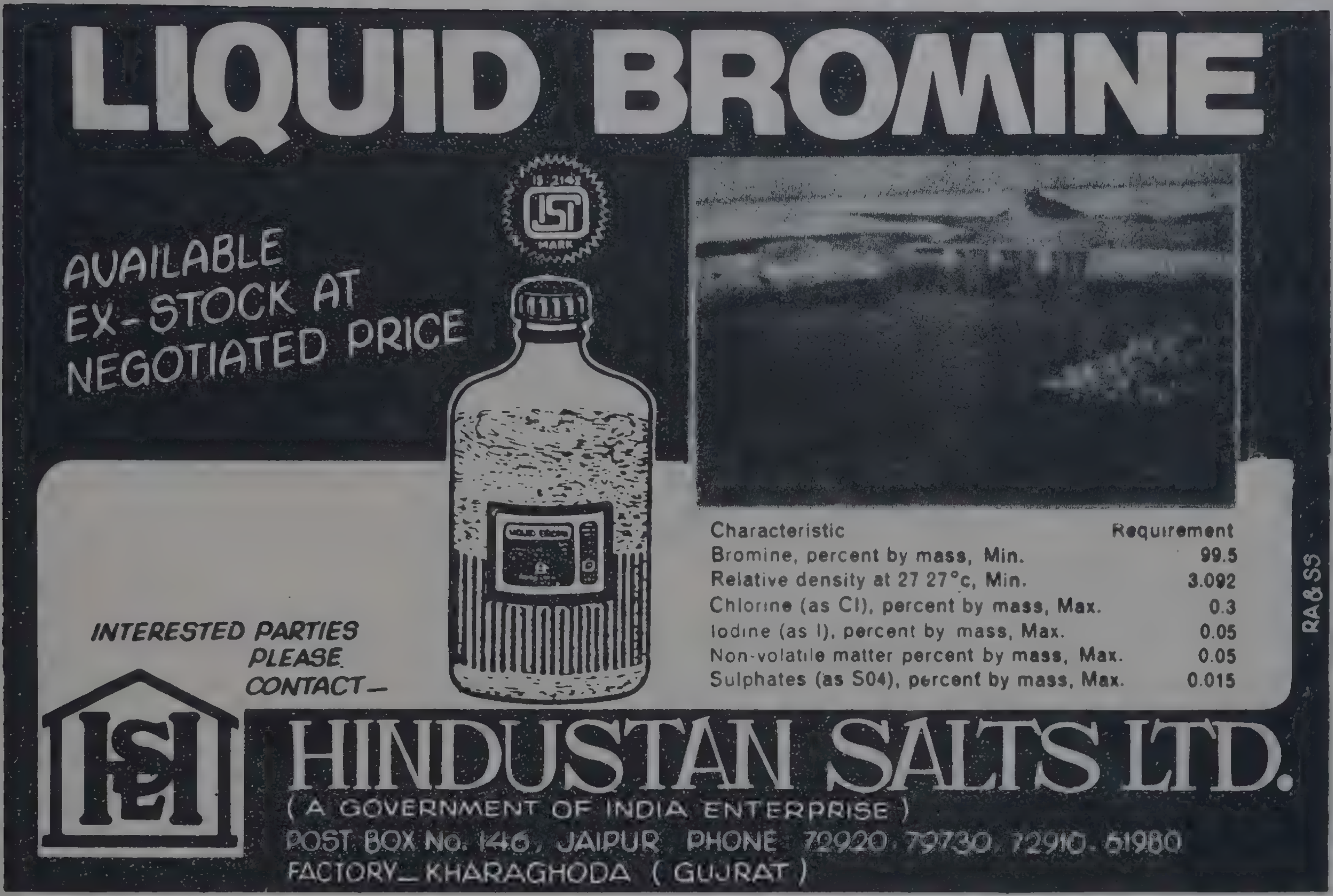

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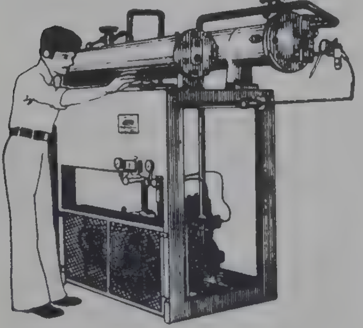

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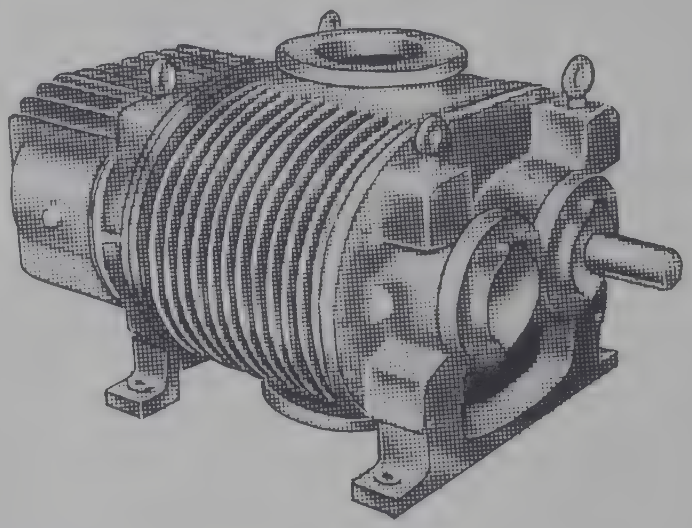

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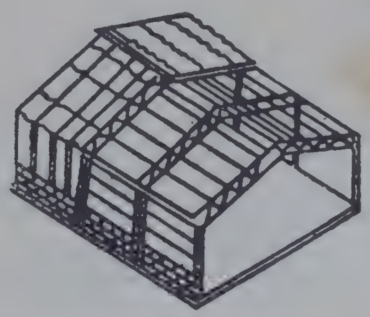

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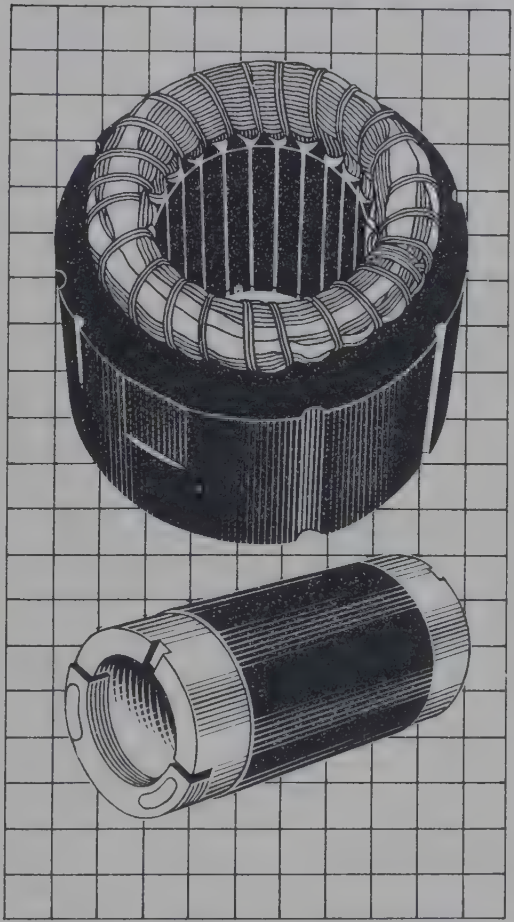

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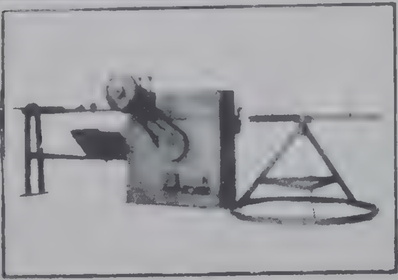

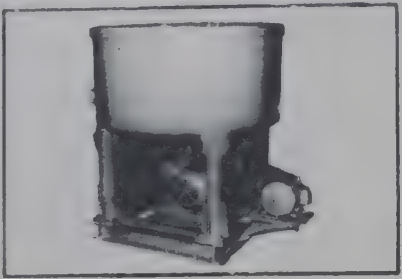

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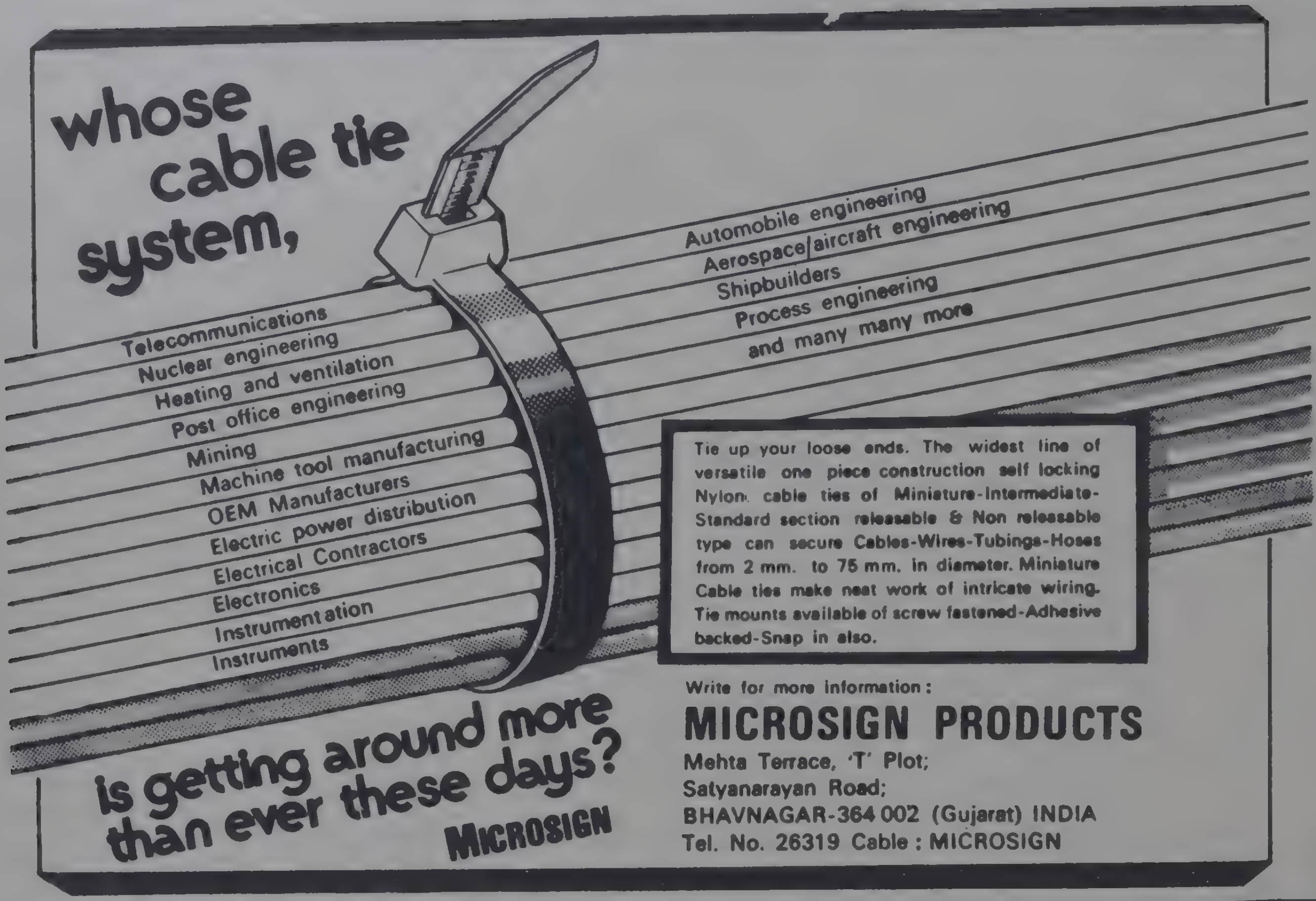

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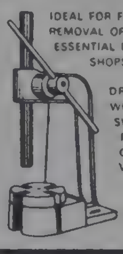

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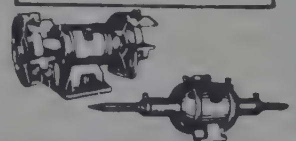

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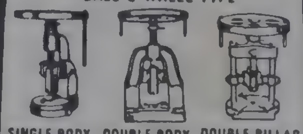

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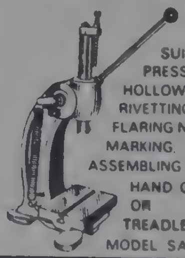

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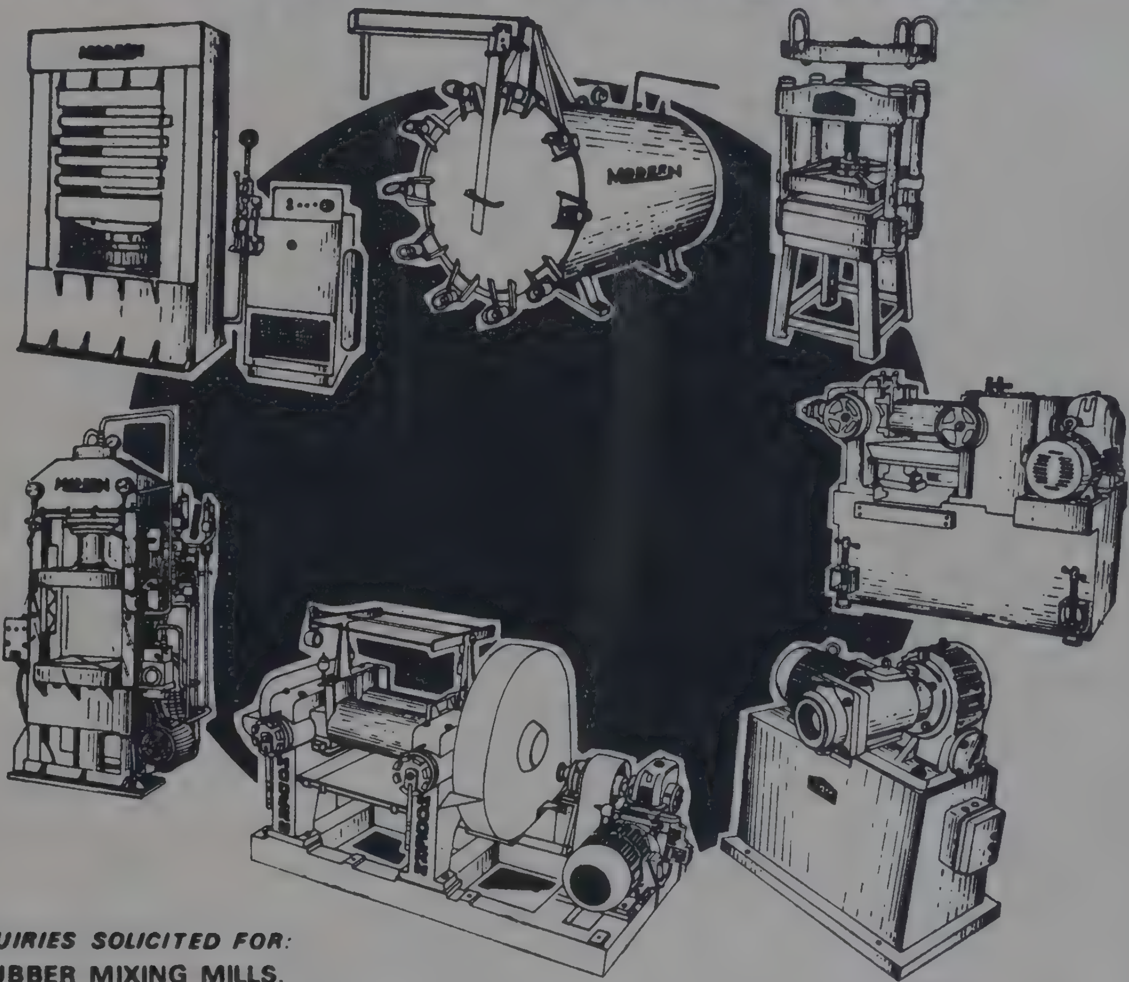

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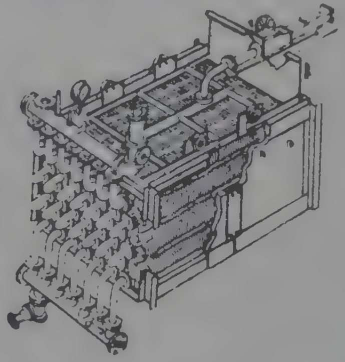

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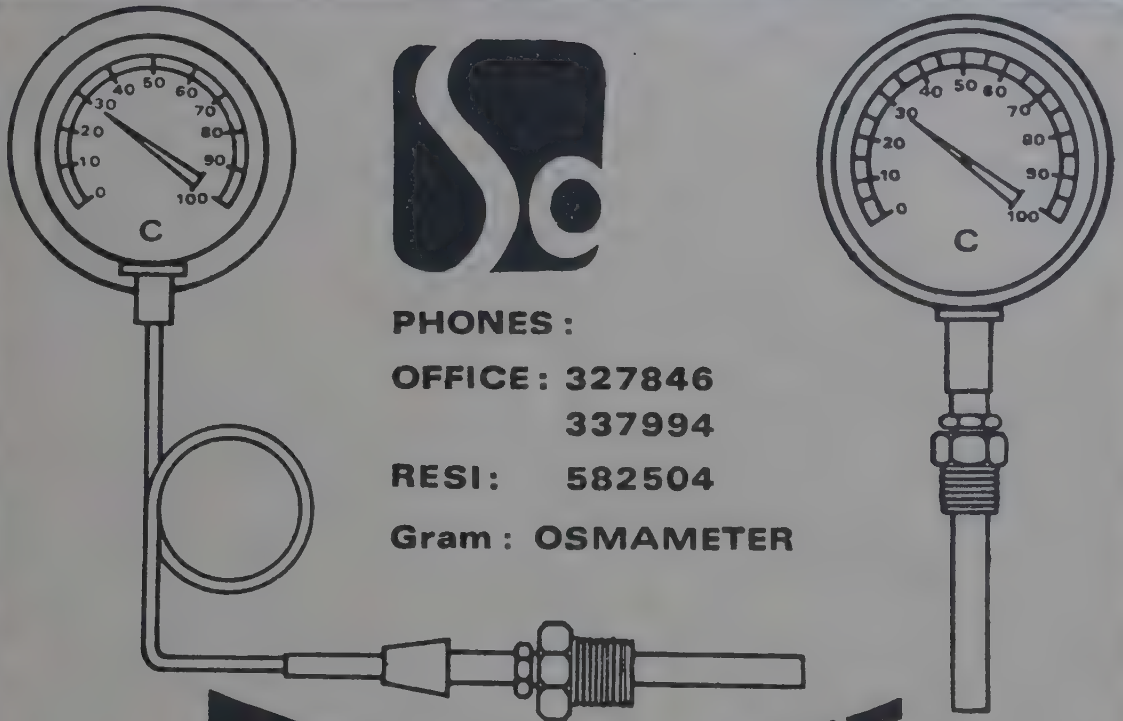

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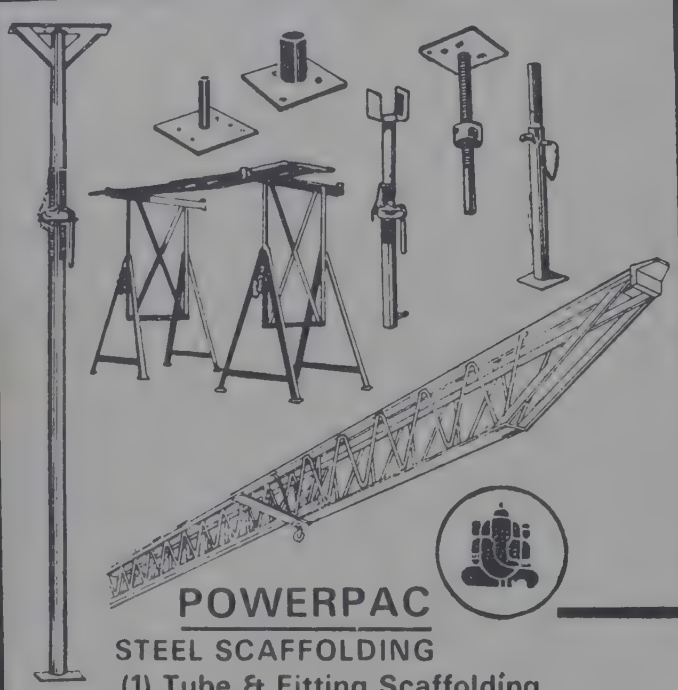

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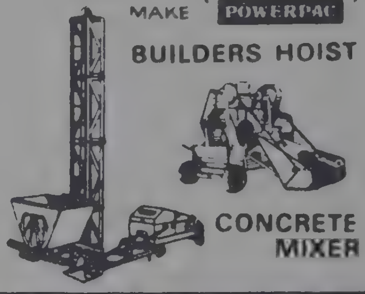

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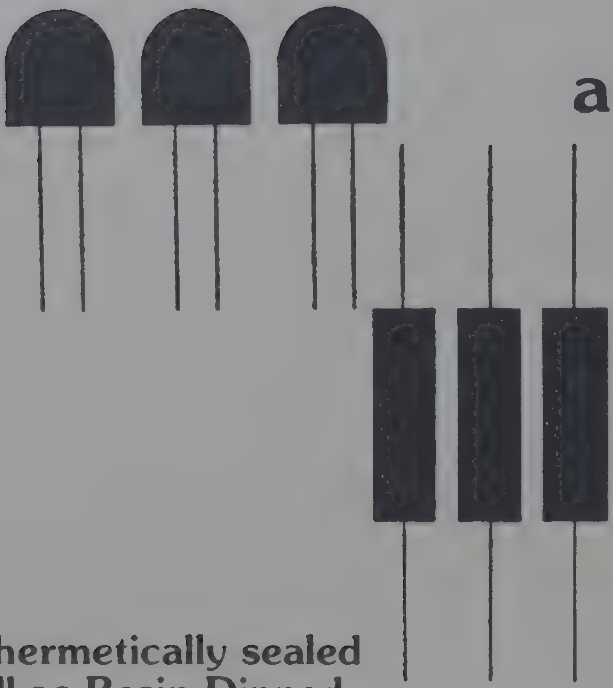

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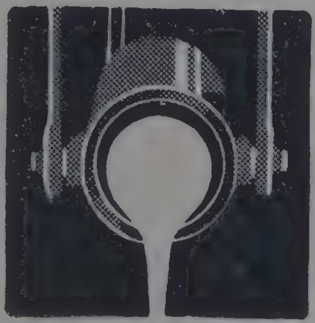

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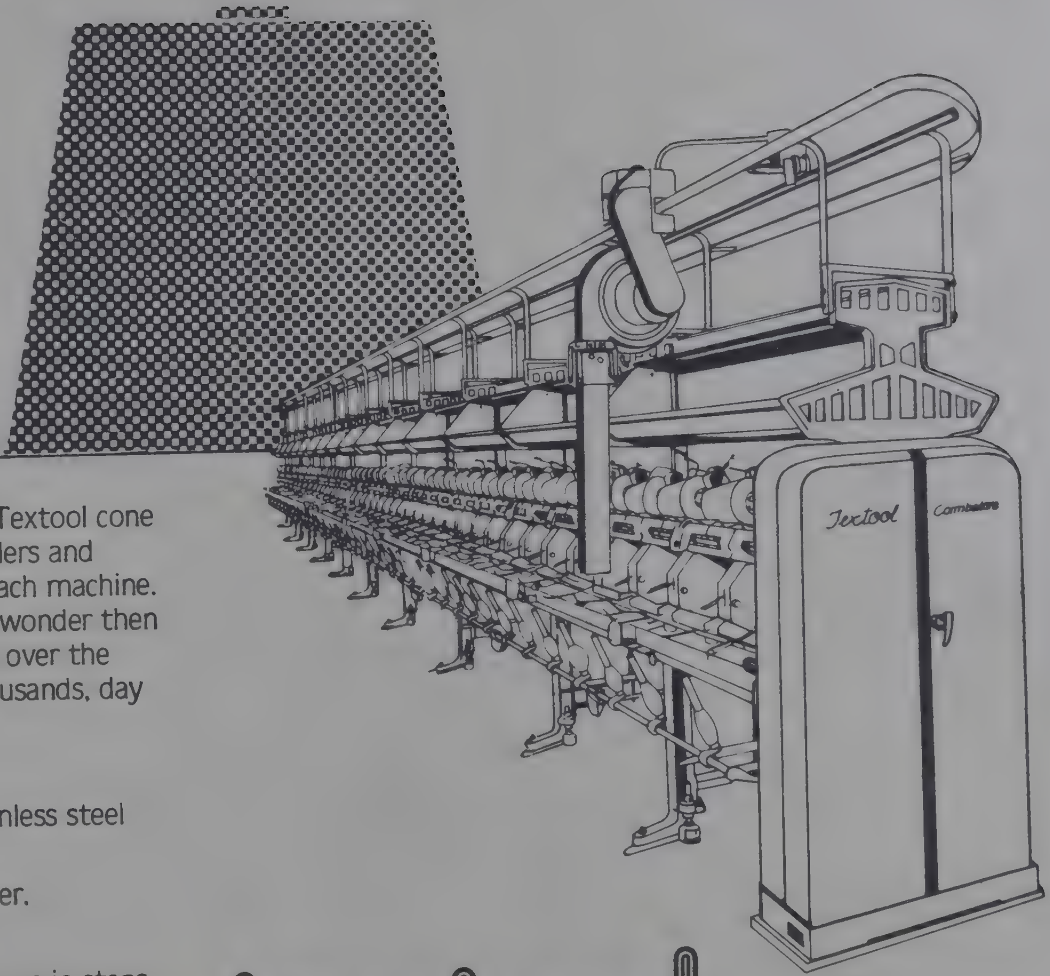

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Debentures:

Rs. 16,06,71,350 (£1,08,47,726 or $1,59,06,464).

Total Annual Sales (1982-83):

Rs. 8,53,15,43,654 (£57,60,07,170 or $84,46,22,822).

Number of Employees: 40,382.

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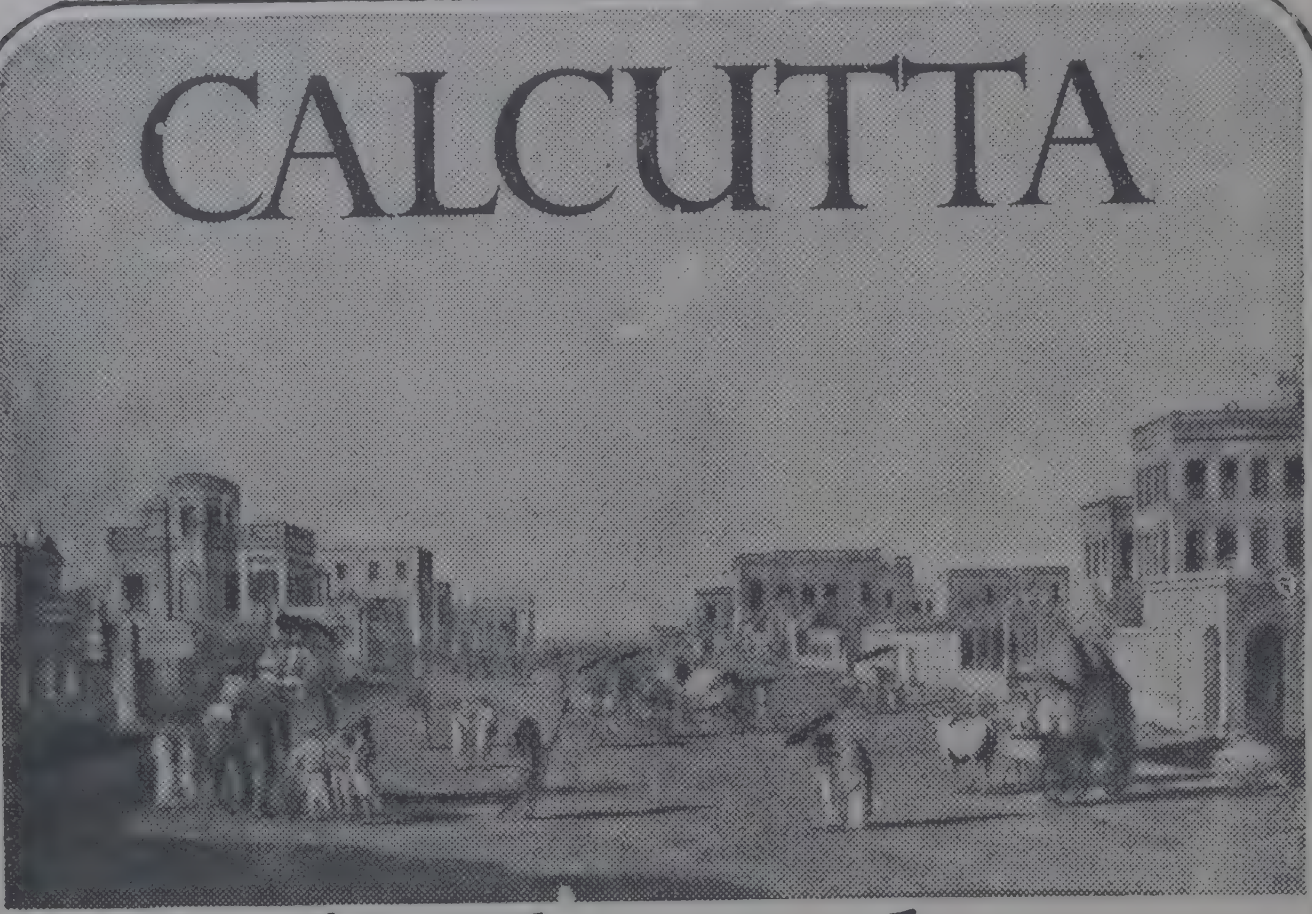

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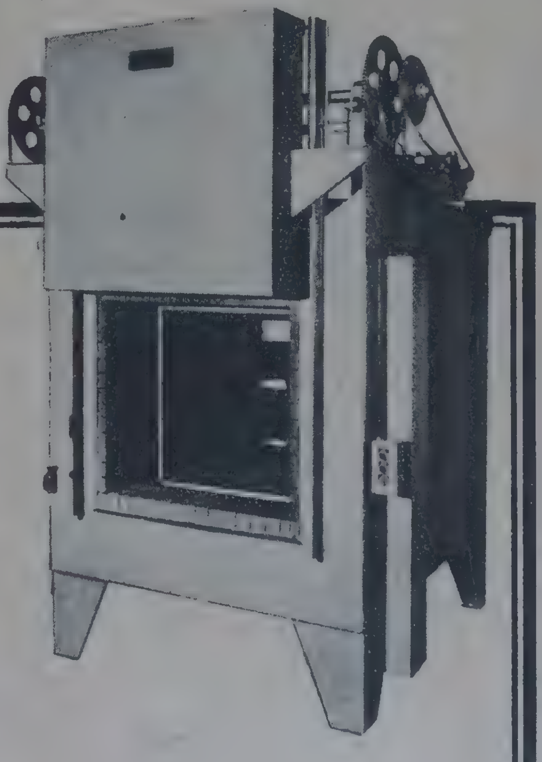

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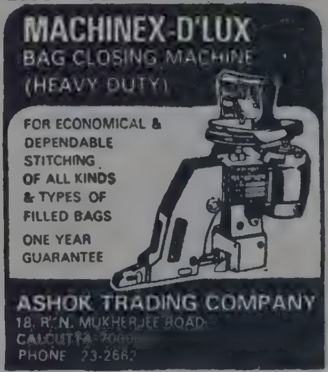

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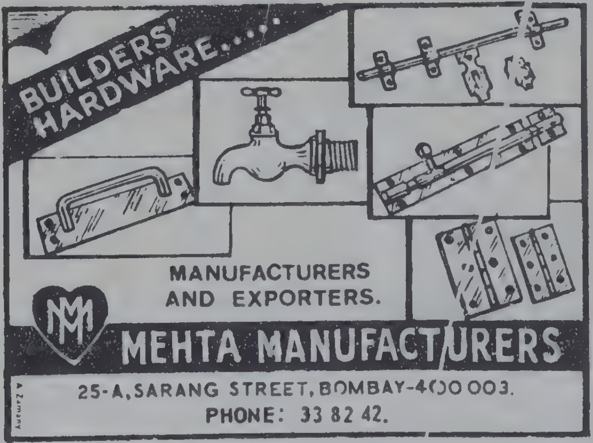

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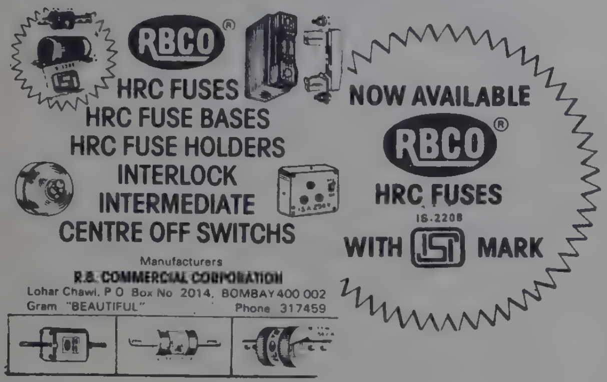

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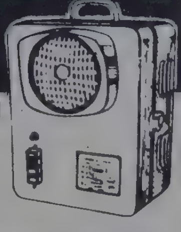

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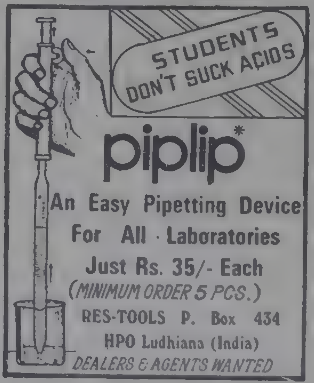

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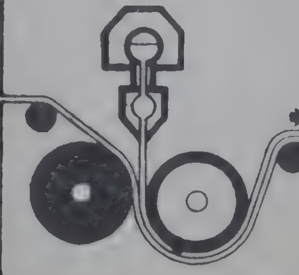

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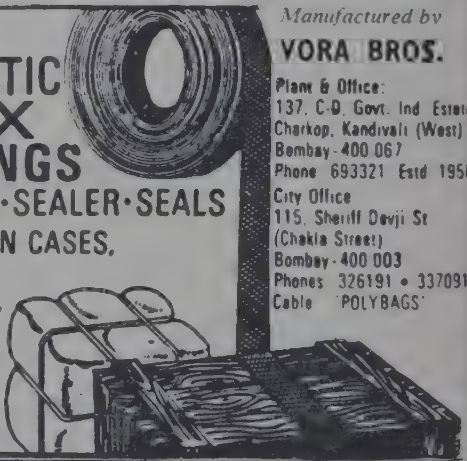

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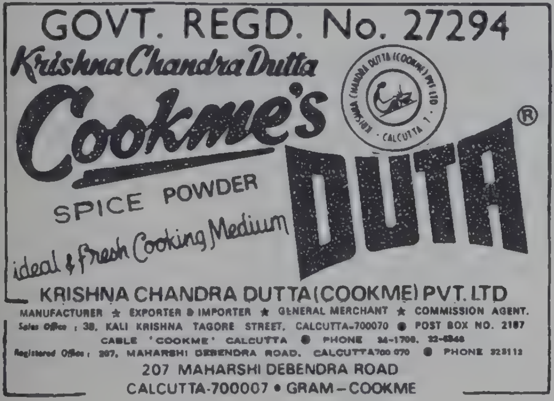

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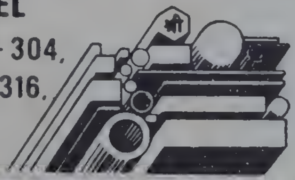

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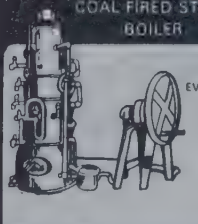

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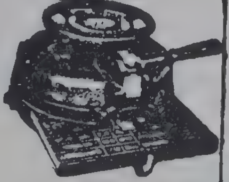

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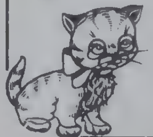

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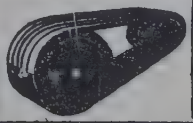

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Jabalpur Office: 1, Roopmahal, Karamchand Chowk,
Jabalpur 482009

WIRE PRODUCTS MFRS.

HYDERABAD ALLUMINIUM INDUSTRIES

Mfrs. in G.I. Standard Wire, G.I. Barbed Wire, Sealing Wire, G.I. Wire, Aluminium Wire; T.C. Fuse Wire, Wire Products, A.A.C. & A.C. S.R. Conductors, Chainlink, Fencing, G.I. Wire Netting.

A-6, Co-operative Indtl. Estate, Balanagar,
Hyderabad-500 037. (A.P.)
Gram: 'HYALIND'
Phone: 260443

WIRE PRODUCTS MFRS. & DEALERS

EVERGREEN WIRECLOTH FACTORY PRIVATE LIMITED

Leading Manufacturers of: Gava Separators (Demister—Mist Eliminator), Fibre Glass Mist **Eliminator** for **Sulphuric** Acid **Plant**, HYFLUX Column Packings, Welded Wiremesh for Poultry Farms & general use and for Reinforcement for wired Glass and Suppliers of other wire products—Stainless Steel, Ferrous & Non-Ferrous Wire Mesh, Industrial Screens, Air Filter Wire Mesh, Chain Link Fencing etc., etc.

Laxmidas J. Thakker (Chairman), Chandrakant L. Khagram (Mg. Director), Ajit L. Thakker (Director).

Regd. Office:
3-D, Maker Bhavan No. 2, New Marine Lines, P.B. No. 11100,
BOMBAY-400 020.
Phones: 312461 & 312706.
Grams: "WIREMESH", Bombay 400 020.
Telex: 011-3244. Code: "MESH IN".

WIRE PRODUCTS & PERFORATED METALS

Dealers: Wire netting of all kinds, wires of all kinds including stitching wire, Plywood, Hardboard, Laminated Sheets, Acrylic & Fibreglass Sheets, Cement Sheets, Corrugated and Plain, Glass wool, Thermocol for insulation.

Contact:

A. A. MORBIWALA & CO.

109-111, Abdul Rehman St.,
Bombay. 400 003.
Phone: 323280.

WIRE ROPES

AMRATLAL CHHAGANLAL & CO.

143, Nagdevi Street, Bombay 400 003.

Stockists of:

Wire ropes, Wire ropes fittings, Wire rope slings, Chains — Chain Pulley Blocks & Chain Slings.

Phone: 326008. Grams: "EKADASHI"

PURE WOOL CARPETS

TEPPEMANNEN

TRIPATHI & CO.

Tripathi Chambers,
245, Bazargate Street,
Bombay 400 001
Phone: 263491

X-RAY EQUIPMENTS

X-Ray Protective Aprons, Coat Type. (p.b.). 0.25, 0.5, 1.00 mm. Size 39" x 24" X-ray Protective Gloves, Seamless, (pb.). 0.25, 0.5, 1.00 mm., Size 15½
Gonade Protectors, Scrotal Shield, Ovarial Protectors

Manufactured by:

ASHA RUBBER INDUSTRIES

L. B. Shastri Marg, Mulund,
Bombay 400 080

EXPORTERS & IMPORTERS

For all your personal representation and/or business contacts in the U. K.

Please consult

U.S. MENON

Business Consultant

8 Byfeld Gardens
Barnes, LONDON SW13 9HP
Phone: 01-748 8573

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"TRESOR" POLYESTER ZIPS
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Bombay-400015.

Phones: 8829135/8825274 Telex: HINA-011-2293
Grams: "ZIPCHAIN"

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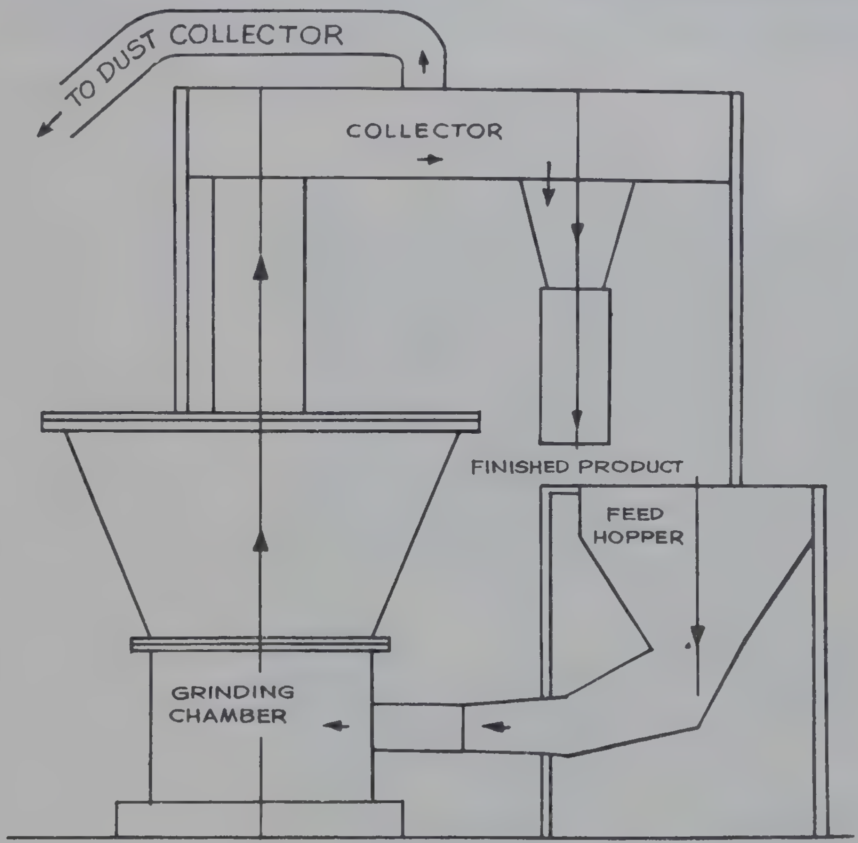

MINERAL MACHINES COMPANY
Unit No. G/5, Hatkesh Udyog Nagar,
Bhayandar Road, Kashimira (Thane).
Phone: 694295.

★ ★ ★ ★ ★

WE PULVERISE MINERALS
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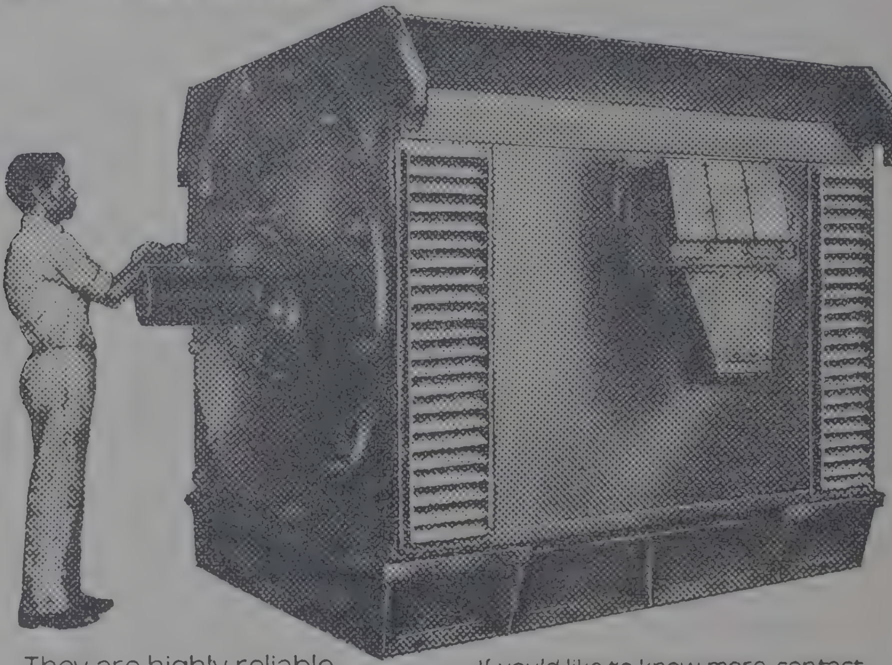
ON SEPARATE MACHINES IN SEPARATE SHEDS

Contact :
SUNIL MINERAL PROCESSORS
Solicitors Bungalow, Quarry Road,
Malad (E.), Bombay 400 064.
Phone: 694295.

ALSO SUPPLIERS OF MANGANESE DIOXIDE

We give every customer a little more than he expects.

Jyoti's High Tension Motors: Not just the biggest range, the best. Like India's largest indigenously-developed Twin Drive Motors.



everest/83/JY/557

For over 3 decades now Jyoti has provided the drive to power Indian industries.

Today Jyoti has an enviable range of rotating electric machines. From small motors for agriculture to textile motors to sugar centrifuge motors to special-purpose D.C. motors to rotating drives in the high tension range.

In fact, Jyoti has indigenously developed India's largest Twin Drive Motors—comprising 2540 hp each. They incorporate the latest in technology. These slipring induction motors are drip-proof Have identical torque-speed characteristics and Resistance Temperature Detectors of platinum type.

They are highly reliable and practically maintenance-free. Reason why a wide and growing list of quality-conscious customers insist on Jyoti for all their power requirement.

Delhi Municipal Corporation. Rajasthan Atomic Power Station. Maharashtra Industries Dev. Corporation Water Supply Scheme, Barvi. Rourkela and Bhilai Steel Plants. Leading Thermal Power Stations. Chitwan Valley Development Project, Kathmandu, ONGC, Uran and so on...

If you'd like to know more, contact:

Heavy Machines Division — Group-I
Darpan Building
R.C. Dutt Road
Vadodara-390 005

Telephones: 67131-2-3 & 67197-8
Telegram: PROJYOTI
Telex: 0175-481
ABC: JM-IN

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VADODARA

Shaping technologies for a better life — your life.

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□ 4th floor, Chiranjiv Towers, 43, Nehru Place, New Delhi 110 019. Telephones 644895, 644051 & 683249
□ 145/146, Nungambakkam High Road, Madras 600 034. Telephones: 85007 & 83683
□ 45, Jhowtala Road, Saiyad Amir Ali Avenue, Calcutta 700 019. Telephones: 441609, 432843 & 433306.

Whatever the motive source
it's the most rugged and reliable power force.

'Jyoti' Standard Alternators: For use on any Diesel Engine, Steam or Hydro Turbine.

For over 4 decades now we've extended the capabilities of men by providing the drive, muscle and know-how to harness power.

Our sophisticated range of Alternators are one such case in point. Rugged, reliable and totally dependable, they have earned praise from customers in India and abroad. In every type of industry. Hydro-electric Stations, Oil Rigs, Dockyards & Ships, Chemical Industries and Communication Projects.

Take a look at their salient features:

* 30 kVA — 625 kVA Self-excited and Self-regulated System
100 kVA — 7500 kVA Brushless Excitation System for 440 V, 3.3 kV, 6.6 kV or 11 kV generation
* Unique Self-excited, Self-regulated System allows 'Jyoti' Alternator to adjust voltage with change in speed automatically — ideal characteristic to protect your drives by maintaining constant voltage to frequency ratio
* Stabilised Voltage Output within ±2.5%V regulation
* Conforms to IS-4722 and its international equivalents as well as Lloyds Register of Shipping, American Bureau of Shipping, Indian Register of Shipping or to the specifications of any International Classification Society.

If you'd like to know more, contact:

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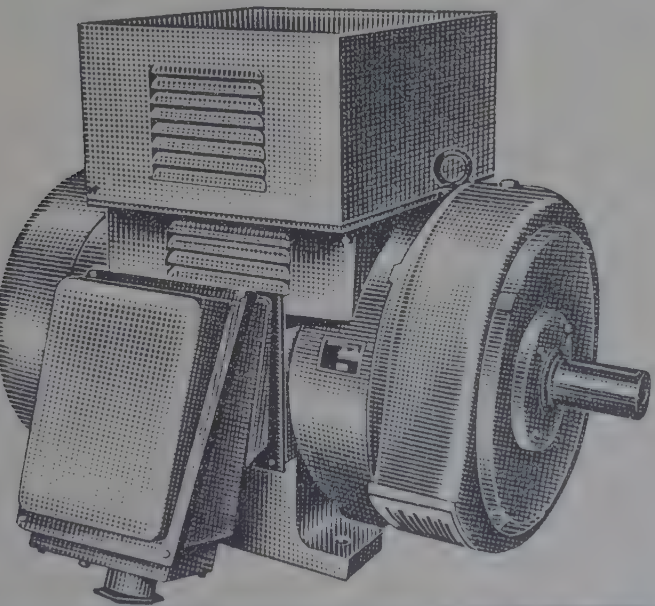

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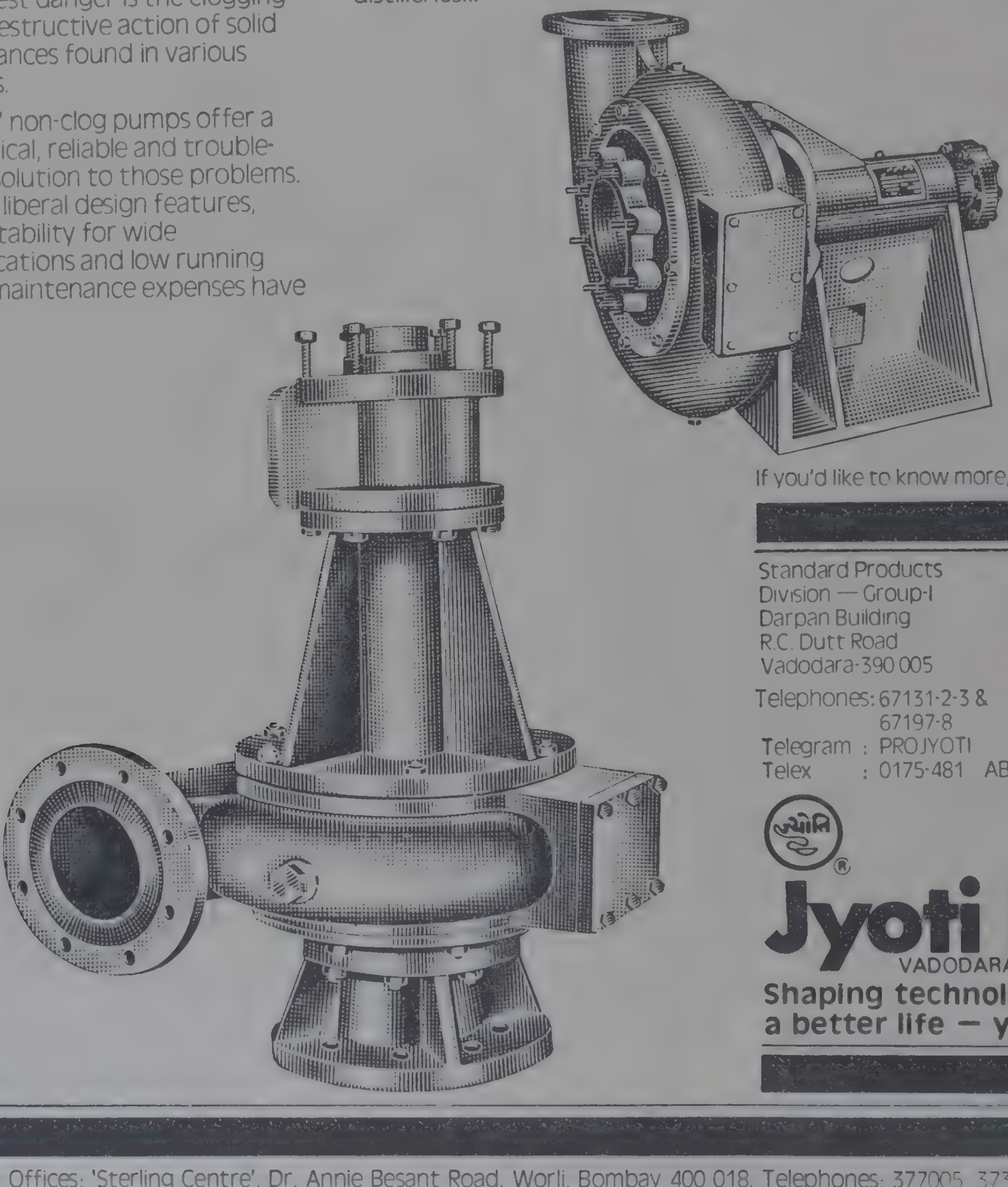
How our non-clog pumps are effecting considerable savings for Municipal Corporations.

Jyoti's Horizontal, Vertical & Centrifugal non-clog pumps.

Pumping problems in sewage stations, chemical industries and laboratories are varied and complex. But all agree that the greatest danger is the clogging and destructive action of solid substances found in various liquids.

'Jyoti' non-clog pumps offer a practical, reliable and trouble-free solution to those problems. Their liberal design features, adaptability for wide applications and low running and maintenance expenses have made them the first and only choice for a wide variety of industries: sewage stations, laboratories, mines, sugar mills, distilleries...

Yes, when the right kind of pump makes all the difference between costs and savings — specify Jyoti. The people who give you more yield per rupee.



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If you'd like to know more, contact:

Standard Products
Division — Group-I
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R.C. Dutt Road
Vadodara-390 005

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How our better design features give better pump performance.

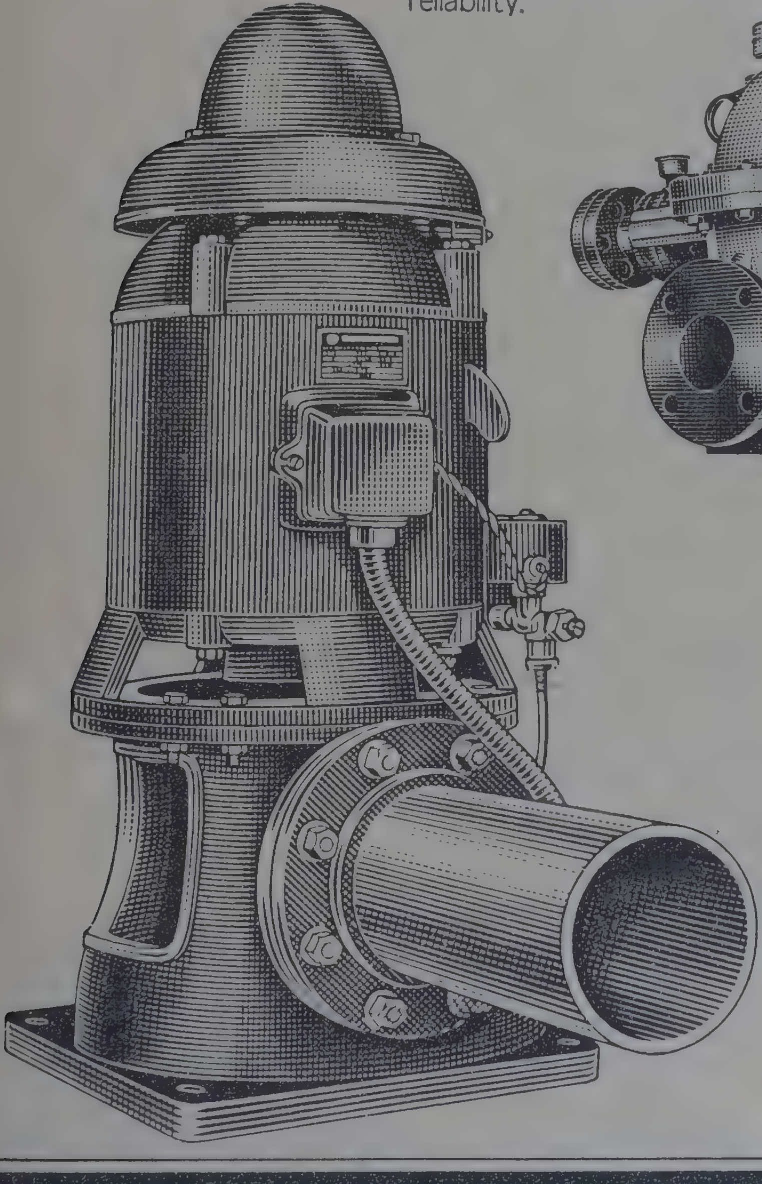
Jyoti's Vertical Turbine & Horizontal Split-casing Pumps.

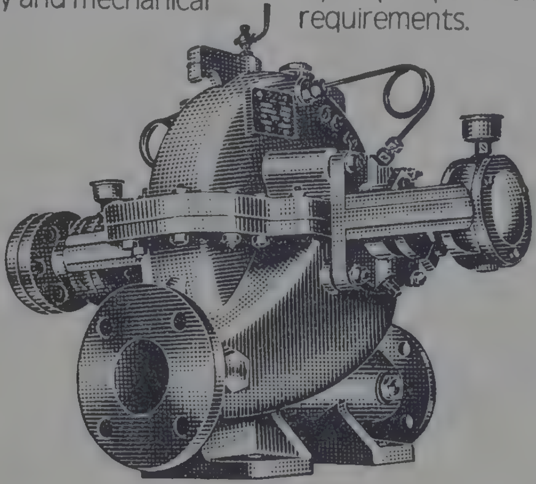
Since the time Jyoti first pioneered Vertical Turbine Pumps it has led the field. Not just in sales figures and performance characteristics, but in customer confidence.

Today its Horizontal Split-casing Pumps meet with the same resounding success. And for the same reasons.

New heights in pump design, sturdy construction features, top efficiency and mechanical reliability.

It's because Jyoti has a reputation for providing 'more yield per rupee' that projects as varied as Irrigation Works, Municipal Corporations and Engineering set-ups, specify 'Jyoti' pumps for all their requirements.





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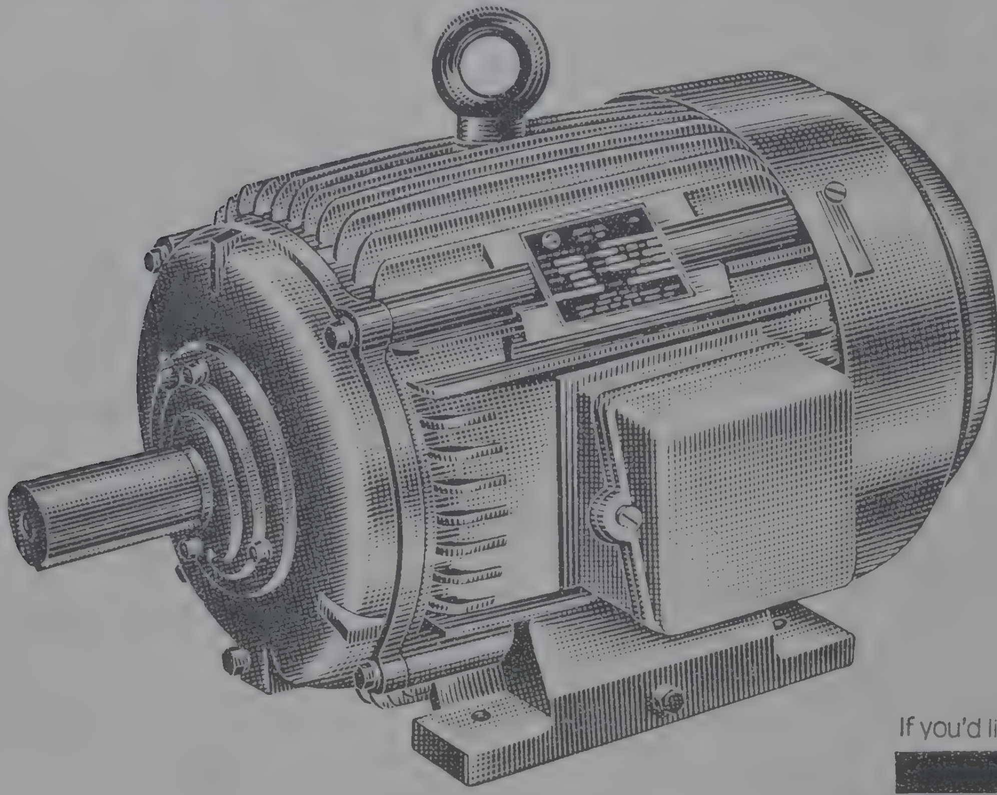
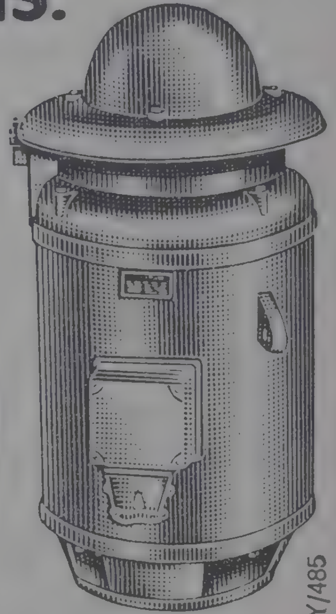
Most manufacturers just build motors. We build solutions.

'Jyoti' Electric Motors: The right one for every need.





everest/83/JY/485

Every 'Jyoti' Electric Motor has evolved through continuous on-field applications. This rigorous process has helped our scientists and engineers to weed out problem factors. And, more importantly, to make sturdy, reliable motors that can stand the stress of continuous working in hazardous conditions.

No wonder then that a wide range of quality-conscious industries specify 'Jyoti' Electric Motors for all their requirements.

- **'Jyoti' Vertical Hollow/Solid Shaft, Squirrel Cage Drip-proof/Totally Enclosed Fan-cooled Motors.**
- **'Jyoti' Horizontal Squirrel Cage, Drip-proof/Totally enclosed fan-cooled Motors.**
- **'Jyoti' Horizontal Slip-ring Drip-proof Motors.**
- **'Jyoti' D.C. Motors.**
- **'Jyoti' Multi-speed/Continuous Sugar Centrifuge Motors.**

If you'd like to know more, contact:

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Darpan Building
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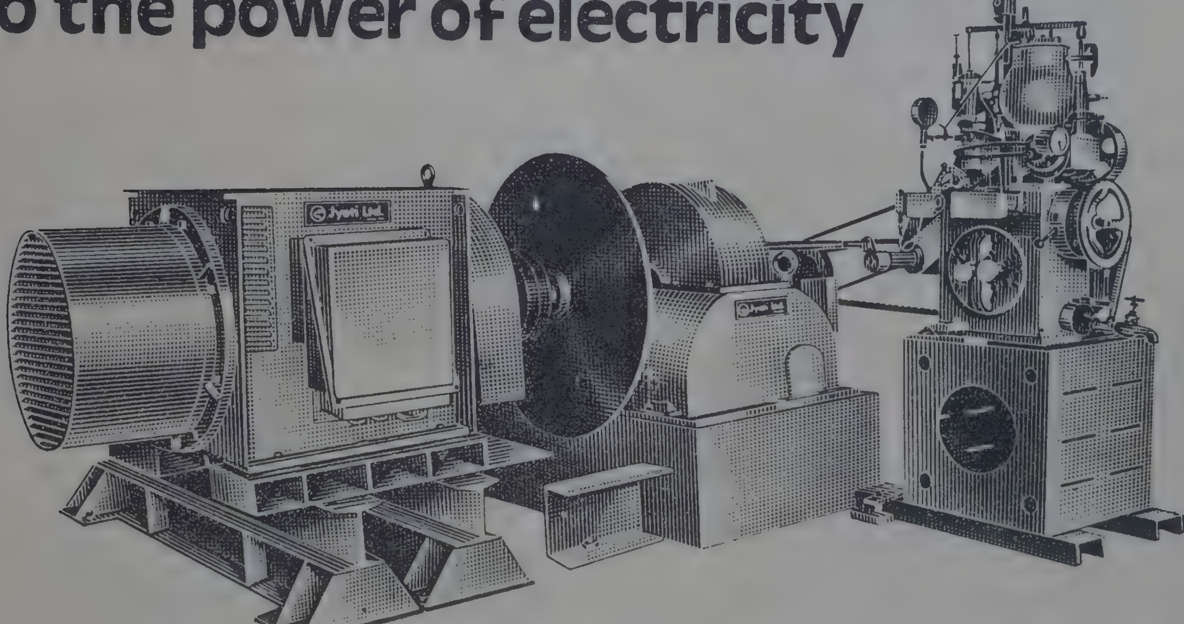
How to get power where it pours

'Jyoti' Hydel Sets: Transforming the power of water into the power of electricity



everest/83/JY/483-r1

While others still debate and plan to harness mini hydro power, at Jyoti, we have been practising it for over two decades. As pioneers, today we are the leading manufacturers of mini hydro sets with the latest technical know-how. From water-heads of a few metres to a few hundred metres from rivulets, canal drops and streams, we generate power through the most versatile, reliable and economical mini hydro sets you can buy.

- Provision of safety devices like overspeed trip, low oil pressure trip, lubricant oil temperature protection, overload, overvoltage and earthfault protections for generator, etc.
- Electronic-type governor for parallel operation with grid.
- Manufactured under rigid quality control.
- Backed up by Jyoti know-how and experience in R&D, application engineering, and after-sales-service in India and abroad.

'Jyoti' Range of Hydro Sets:

Type	Head	Size	Output
Propeller	3-30 m	260-2200 mm	10-6000 kW
Francis	20-200 m	250-1000 mm	50-3000 kW
Turgo Impulse	60-200 m	225-600 mm	25-1500 kW
Pelton	150-400 m	300-1400 mm	50-6000 kW

Special features:
- Highly efficient
- 'Standard' sets with in-built flexibility
- Ease of operation and maintenance
- Pollution-free

Typical applications:
- Localised supply to inaccessible hilly areas
- Defence installations
- Captive sets for large civil construction works
- Tea gardens and timber estates.
- Harnessing canal drops for augmenting lift irrigation.
- Reclaiming energy from cooling water releases.
- Feeding power to main electricity grids.

If you'd like to know more, contact:

Hydel Division — Group-I
P.O. Chemical Industries
Industrial Area
Vadodara 390 003

Telephones: 82851 (5 lines)
82706-7 . 82945-6-7
Grams : JYOTIPUMPS

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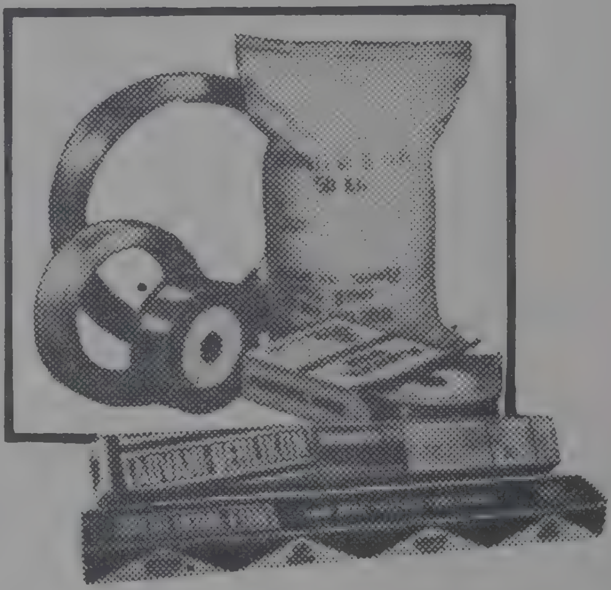
Thermit Welding Consumables

Wires/Fluxes

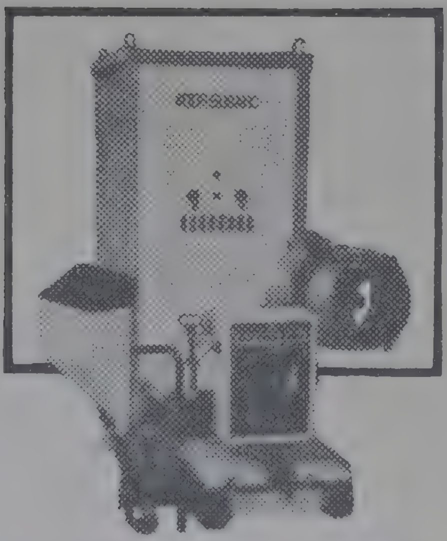
Wire/Flux Combinations for Submerged Arc Welding □ Solid and Flux-Cored Wires for CO_2 Welding

Low Heat Input Welding Alloys

Non-consumable Tungsten Electrodes



Welding consumables



Ador submerged arc welding outfit

2. WELDING EQUIPMENT AND ALLIED PRODUCTS

Welding Equipment

Air & Oil Cooled Welding Transformers □ Motor Generator Welding Sets □ Rectifier Type DC Welding Power Sources □ Internal Combustion Engine Driven Welding Sets □ Resistance Welding Equipment □ Pulsed TIG Welding Outfits □ Gas Tungsten Arc Welding Equipment including AC/DC Composite Outfits □ Plasma Arc Cutting-cum-TIG Welding Outfits/Micro-Plasma Arc Welding Equipment □ Gas Metal Arc (MIG/MAG) Welding Outfits □ Submerged Arc Welding Outfits

Welding Aids

Columns & Booms □ Rotators □ Positioners □ Automatic Yoke Welding Equipment □ Weld Seamers □ Axle Welding Machines □ Roll Rebuilding Machines

Custom-built Welding Equipment & Turnkey Systems

Adorheat Preweld & Postweld Heat Treatment Equipment & Services

Welding Electrode Manufacturing Equipment

Vertical & Horizontal Type Hydraulic Welding Electrode Extrusion Presses □ Fully Automatic High-Speed Wire Straightening & Cutting Machines □ Hydraulically Operated Slug Presses □ BML Brushing Machines & PCL Pick-Up Conveyors □ Hydraulically Operated Planetary Wet Mixers □ Stationary High Temperature Electrode Drying & Baking Ovens

Hydraulically operated slug press

3. INDUSTRIAL & POWER ELECTRONICS AND POWER CONTROL EQUIPMENT

Thermometry Instruments

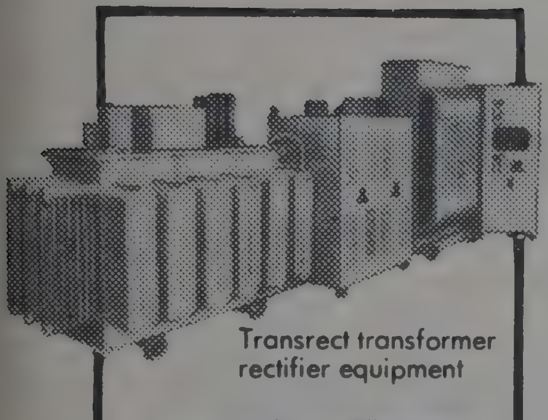
Temperature Indicators □ Blind Temperature Controllers □ Blind Temperature Controller with Error Indicator □ Temperature Indicating Controllers □ Digital Thermometers □ Digital Thermometer with Digital Trip □ Digital Temperature Indicating Controllers □ Temperature Scanners (Analog Version) □ Digital Temperature Scanner □ Thermoscan with Printer □ Mobile Scan — Scanner for mobile applications □ Thermophase — Solid State Furnace Controllers □ Universal Programmers □ Microprocessor-based Data Scanner

Heat Treatment Control Instruments

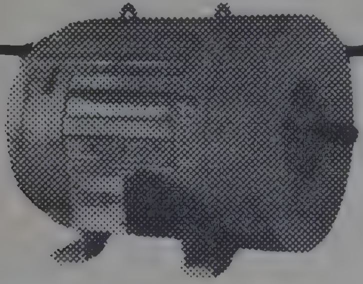
Semi Automatic Programme Controllers

Machines & Power Control Equipment

Solid State Thyristor Drives for all applications □ Tachogenerators □ High Voltage Rectifiers and Controllers for Electrostatic Precipitators □ DC Motors □ Battery Chargers □ Float Chargers □ Custom-built Transformer-Rectifier Equipment □ Furnace Transformers □ High Frequency Convertors □ Electroplating Rectifiers □ Dry Type Transformers/Rectifier Units □ DC Generators □ Thyristor Convertor Systems (Consist of DC Thyristor Convertor Panels, DC Motor & Tachogenerator) □ Custom-built DC Motor □ Custom-built Rotary Machines □ Reactors/Inductors □ AC/DC inverters □ AC to DC Convertors



Transrect transformer rectifier equipment



Citopower DC motor

Data Counting Instruments

RPM Counter □ Speed Switch with Proximity Pick-up □ RPM Counter/Controller □ Preset Counters □ Digital Tachogenerator DT-05 & DT-24

Annunciator Panels

Alarm Annunciator Panels □ Digital Sequential Alarm Annunciator Panels

Timing Controllers

Timers □ Hour Timer □ 2-Stage Process Timer □ Traffic Signalling Systems □ Blinkers

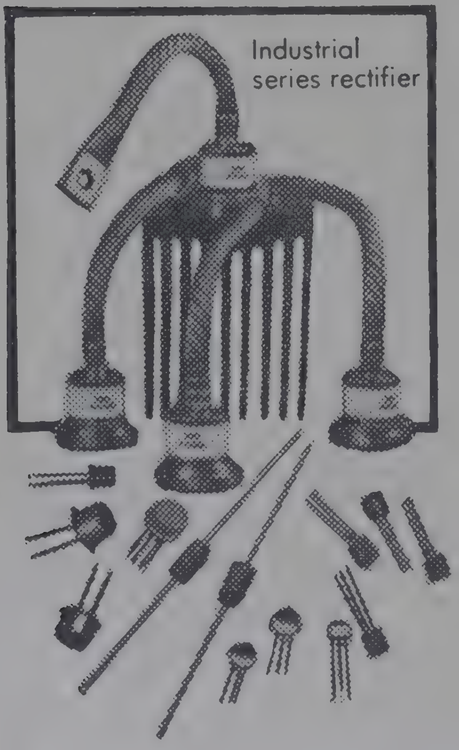
Miscellaneous Products

Single Phasing Preventor □ Liquid Level Controller □ Over/Under Current Relay □ Laboratory Power Supply □ Solid State Switch □ Automatic Diesel Engine Starting System □ DC Power Supplies □ Mercury Switches

Energy Conservation Systems

Wind Mills □ Biogas Plants □ Waste Heat Recovery Systems □ Solar Water Heating Systems

Ador solar hot water system



Semiconductor devices

4. ACTIVE AND PASSIVE ELECTRONIC COMPONENTS

SEM Devices

(Manufactured by Semiconductors Limited and Marketed by the APEC Division of Advani-Oerlikon Limited)

Germanium Transistors □ Germanium Diodes □ Silicon Transistors □ Silicon Diodes □ Silicon Zener Diodes □ Silicon Photo Diodes □ Silicon Rectifiers □ Silicon Controlled Rectifiers, Triac's, Diac's □ Silicon Bridge Rectifiers and Stacks □ Linear Integrated Circuits □ Digital Integrated Circuits

Electroceramic Products

(Manufactured by Advanced Magnetics Limited and marketed by the APEC Division of Advani-Oerlikon Limited)

Loudspeaker Magnets □ Ferrite Rods □ Balun Cores

Unilec — Resistors & Capacitors

(Passive Electronic Components marketed by the APEC Division of Advani-Oerlikon Limited)

Carbon Film Resistors □ Polyester Film Capacitors □ Metallised Polyester Film Capacitors □ Polystyrene Capacitors □ Styroflex Capacitors

Plessey Semiconductors (U.K.) — Micro-Circuits

(Marketed by the APEC Division of Advani-Oerlikon Limited)

High Performance Linear Integrated Circuits □ Radio Communication ICs □ Telephone Communication Circuits □ Standard ECL III □ Sub-Nano Second ECL □ High Speed Comparators

Data Conversion Circuits □ Digital High Speed Dividers □ Data Communication Circuits □ N-Channel MOS PCM Circuits □ C-MOS Telecommunication Circuits □ Television Circuits □ Zero Voltage Switches/Phase Control Power Switches

Plessey Optoelectronics and Microwave Ltd — Optoelectronics & Microwave Devices

(Marketed by the APEC Division of Advani-Oerlikon Limited)

Optoelectronics

L.E.D. Sunlight Visible Displays □ Fibre Optic Products □ High Power Infra-red Emitters □ Fast Response Near Infra-red Photodiodes □ Pyroelectric Infra-red Detectors □ Detectors for Gas Analysis, Pollution Monitors and Fire Alarms □ Detectors for Intruder Alarms □ Detectors for Laser Pulse Detection □ Pyroelectric Ceramic Detector Arrays □ High Power Infra-red Emitters

Microwave Devices

Gunn Diodes □ CW and Pulsed Gunn Oscillators □ Doppler Modules and Detectors □ CW Impatt Oscillators □ GaAs FET Amplifiers □ Low Noise Amplifiers

Signal Technology Limited of U.K.

(A joint venture company of the Plessey Co. Ltd. & Anderson Group Inc.)

SAW Devices

(Marketed by the APEC Division of Advani-Oerlikon Limited)

Oscillators □ I.F. Strips □ SAW Filters □ Pulse Compression Systems □ Microscan Receivers □ Programmable Correlators and Convolvers □ Tapped Delay Lines □ Data Convertors, A to D and D to A □ Piezoelectric Transducers for underwater sound □ Sonar Transducer Arrays

Electronic Musical Instruments

(Manufactured by Semiconductors Ltd, and marketed by the APEC Division of Advani-Oerlikon Ltd.)

PEO-05 (5 Octave Portable) □ CEO-05 (5 Octave Console) Amplifiers with Speaker Unit (20 W) □ Mixer-Amplifier-Speaker Systems (70 W)

Printer calculator

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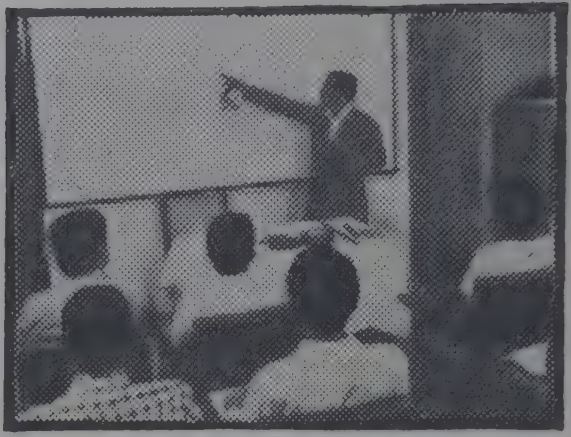

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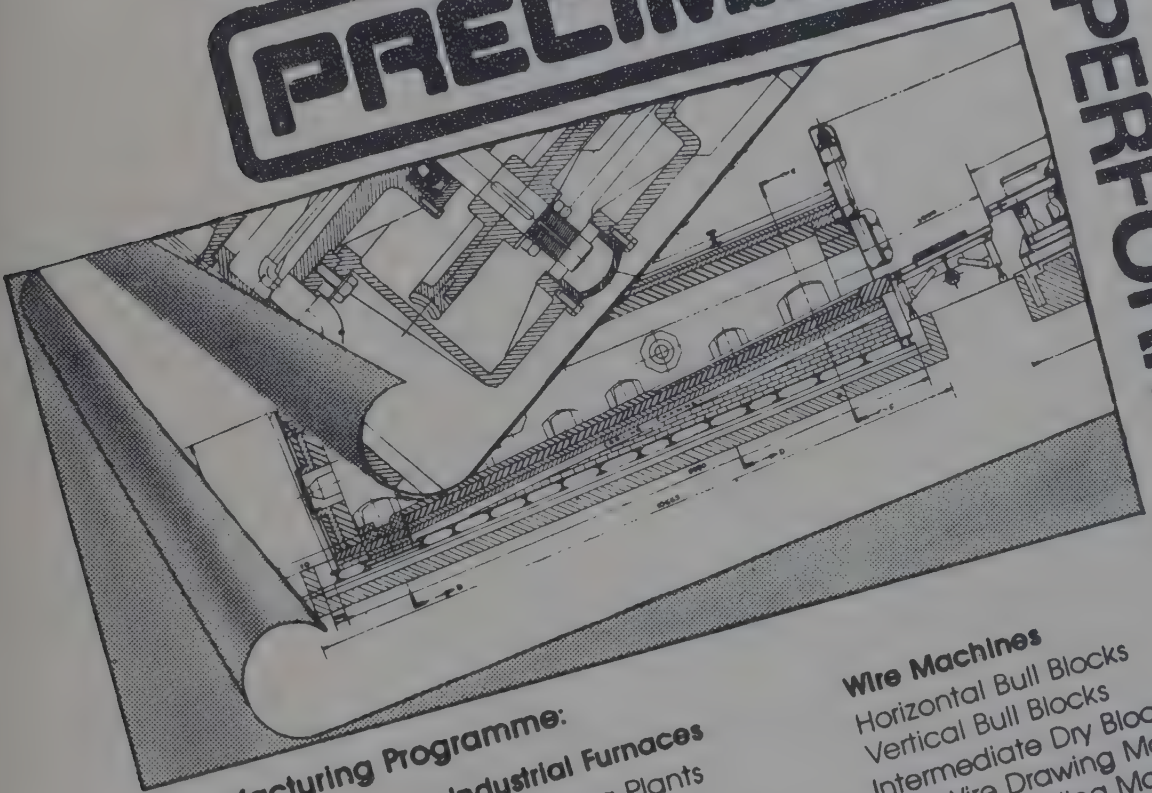

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services of the State and also contain a statement of the international policy of the Republic.

FUNDAMENTAL DUTIES: (ART 51A): Part IVA has been added by the 42nd Constitutional Amendment specifying the fundamental duties of citizens, to uphold, abide, and protect the Constitution, the National Flag and National Anthem, and the sovereignty, unity and integrity of India, to defend the country and render national service when called upon to promote common brotherhood, protect the cultural heritage and national environment, safeguard public property and abjure violence.

THE UNION : The Executive: *The President:* The executive head of the Indian Union is the President. He is elected by the elected members of the House of Parliament and the Legislative Assemblies of all the States, in accordance with the system of proportional representation. His term of office is five years, and he is eligible for re-election. Only a person who is a citizen of India and has completed the age of thirty-five years and is qualified for election as a member of the Lok Sabha is qualified to contest the election. The President cannot be a member of Parliament or hold any other office of profit. *Salary :* The President is entitled to the use of an official residence without payment of rent, and a salary of Rs. 10,000 per month and allowances. Provision has also been made by an Act of Parliament for a pension of Rs. 15,000 per annum. He is also entitled to a maximum of Rs. 12,000 per annum for the sake of secretarial staff and other expenses.

Presidential Powers: The President exercises the powers vested in him either directly or through officers of the government. The President acts on the advice of the council of ministers and he is bound by such advice. All executive action of the Government of India shall be expressed to be taken in the name of the President and extend to matters in respect of which Parliament has power to make Laws. The Supreme Command of Defence Forces vests in him. The President summons, prorogues, addresses, sends messages to Parliament and dissolves the House of the People (Lok Sabha); promulgates ordinances when Parliament is not in session; makes recommendations for introducing financial and money bills; and gives assent to bills, grants pardons, reprieves, respites and remissions of punishments or suspends, remits or commutes sentences in certain cases. The President's powers include the power of appointing the judges of the Supreme Court and the High Courts, the Attorney-General of India and the Comptroller and Auditor-General of India. The heads of States, *i.e.,* Governors, are also appointed by the President. The President has the power of appointing ambassadors abroad and receiving diplomatic representatives of foreign States.

The President, may, if satisfied that a grave emergency exists whereby the security of India is threatened by war, external aggression or internal disturbance, make a Proclamation of Emergency (ART. 352). Similarly the President may, if he is satisfied that the financial stability of the country is threatened, make a declaration and in consequence thereof the executive authority of the union is considerably extended under the Constitution (ART. 360) (See below: EMERGENCY).

Council of Ministers and the Prime Minister: The Council of Ministers is headed by the Prime Minister to aid and advise the President in the exercise of his functions. The Prime Minister is appointed by the President who also appoints ministers on the advice of the Prime Minister. The Council holds office during the pleasure of the President and acts on the principles of joint responsibility. The Prime Minister has to communicate to him all decisions of the Council of Ministers and, if the President desires, submit for consideration of the Council of Ministers any proposal of a Minister not yet considered by the Council.

Impeachment: Provision is made for the impeachment of the President, by Parliament, for violation of the Constitution. The President may be impeached and removed from office by a resolution passed by two-thirds of the total membership of a house of Parliament after an investigation of a charge by it on a proposal made by one-fourth of the total membership adopted by a resolution passed by two-thirds of the total membership of the other house of Parliament.

Vice-President: There is a Vice-President of India, who is ex-officio Chairman of the Rajya Sabha (the Upper House). The Vice-President acts as President during a casual vacancy in the office of the President. He is elected by the members of both Houses of Parliament and his term of office is five years.

Election of President, Vice-President: Matters pertaining to the election of the President and the Vice-President, and any doubts or disputes arising out of or in connection with such election are decided by an authority or body specified in a Law that, Parliament may make under the 29th Constitutional Amendment and the Law nor the decision of the authority or body can be challenged in a Court of Law. (ART. 71) (This was abrogated by Parliament in June, 1977.)

THE PARLIAMENT: The Parliament consists of the President and two Houses known as the Lok Sabha and the Rajya Sabha. It must meet at least twice a year. The maximum strength is fixed at 250 (12 nominated) for the Rajya Sabha and 545 for the Lok Sabha.

Elections: The Rajya Sabha is elected by the elected members of the Legislative Assemblies of the States and of the Union Territories, while the Lok Sabha is elected directly by the voters in the country.

The Rajya Sabha is a permanent body with one-third of its members retiring every second year. The Vice-President is its ex-officio Chairman while a member is chosen as Vice-Chairman.

Ordinarily the Lok Sabha has a duration of six years, except during an Emergency when Parliament can extend the time by one year at a time while the Proclamation is in force and a maximum of six months thereafter. (ART.83) There is a Speaker and a Deputy Speaker of the House both of whom are elected by its members.

The Houses are summoned by the President who can prorogue the Houses or either House or dissolve the Lok Sabha.

All these posts carry salary and allowances.

Immunity for M.P.s: Members of Parliament are assured of freedom of speech in Parliament subject to the provisions of the Constitution. They enjoy immunity from proceedings in any court in respect of anything said or a vote given by him in Parliament. By the 42nd Constitutional Amendment, Parliament has now unfettered power to evolve the other privileges, powers and immunities of each House. (ART. 105).

Under certain circumstances, the members can be disqualified and their seats declared vacant but the question of such disqualification shall be decided by the President in consultation with the Election Commission who may make an inquiry, and such decision of the President shall be final. (ART. 101-102).

LEGISLATIVE PROCEDURE: A Bill normally goes through the following stages. It is first published. After introduction there is a general debate. Then, there is a clause-by-clause discussion and voting thereon. A specially important measure may go before a select committee or a joint select committee. A Money Bill has a slightly different passage. After it has been passed in the Lok Sabha it is sent to the Rajya Sabha which has to return it within fourteen days with its recommendations which may be accepted or rejected. (ART. 107-110). All Bills when passed by the Houses must receive the assent of the President and the President may give his assent or withhold assent and return the Bill for reconsideration by the Houses. If the Houses pass the Bill again, with or without the President's recommendations or amendments, then the President must assent to the Bill (ART. 111).

Union Budget : Every year the President shall cause to be laid before both Houses a statement of the estimated receipts and expenditures of the Government of India for that year. This "annual financial statement" is popularly known as the Budget (ART. 112).

Quorum : The quorum is fixed at one-tenth of the membership of the House but this may be regulated by rules framed by each House.

Language : The language used in Parliament is either Hindi or English. (ART. 120).

Distribution of Seats : (Please see chapter on Rajya Sabha and Lok Sabha).

Courts and Parliament : No discussion can take place in Parliament with respect to the conduct of a Judge of the Supreme Court or High Court in the discharge of his duties except on a motion for his removal (ART. 121). The Courts are not to inquire into proceedings in Parliament (ART. 122).

Committees : Parliament's control over the administration is also exercised through a series of committees.

The committees can summon witness or require documents to be produced. There is a **Committee on Privileges** which sees to breaches of Parliamentary privilege, and a **Business Advisory Committee** which helps the Ministry of Parliamentary Affairs in drawing up the programme for a session.

Two very important Committees are the **Public Accounts Committee** and the **Estimates Committee.** They are elected by the House of the People and Ministers are barred from membership. The Public Accounts Committee ensures that money is spent for the purpose for which Parliament has voted it. The Estimates Committee examines possibilities of economy and reform in financial administration and the manner in which estimates may be presented to Parliament.

The Union Judiciary: (See next column: Administration of Justice.)

Comptroller and Auditor-General is appointed by the President to control, on behalf of the Union and the States, all disbursements and to audit all accounts of moneys administered by Parliament and State legislatures. (ART. 148-150).

THE STATES : The Executive : *The Governor :* The executive power of each State vests in a Governor, appointed by the President, and is exercised by him either directly or through officers subordinate to him. All executive business and action is taken in the name of the Governor. The powers of the Governor are similar to that of the President in respect of pardons etc. and to suspend etc. sentences. The Governor appoints the *Chief Minister* and the other Ministers of the Council of Ministers who aid and advise him in the discharge of the executive functions. The duties of the Chief Minister are similar to that of the Prime Minister. The Governor summons the Houses of the Legislature of the States, prorogues them and can dissolve the Legislative Assembly. The Governor can promulgate ordinances when the State Legislature is not in session. The Governor also has the power to give assent to bills passed by the State Legislature and the power to reserve certain bills for consideration by the President. The Governor also makes recommendations for introducing financial bills. The Governor appoints the Advocate-General of the State.

The 22 States have Governors as their heads, the Union Territories of Andaman & Nicobar Islands and Chandigarh have Chief Commissioners, Delhi, Goa, Mizoram and Pondicherry have Lieutenant-Governors, Lakshadweep, and Dadra & Nagar Haveli have Administrators.

The system of Government in the States closely resembles that of the Union.

The State Legislatures : Six States, Andhra Pradesh, Bihar, Karnataka, Maharashtra, Tamil Nadu and Uttar Pradesh have two Houses of Legislature; the others, only one. The two Houses are called the Legislative Assembly (sometimes Vidhan Sabha) and the Legislative Council (sometimes Vidhan Parishad). The former has a duration of six years except during a proclamation of emergency when its duration can be extended one year at a time, while the latter is a permanent body with one-third of the members retiring every second year.

Membership Strength : The minimum strength of an Assembly is 60 and the maximum 500. The minimum strength of a Council is 40, and the maximum one-third of the State Assembly. (ART. 170-171).

Elections : An Assembly is elected directly on the basis of adult franchise with reservation of seats for the Scheduled Castes and Tribes. The composition of a Council is more complicated. About a third are elected by the Assembly, another third by local authorities (municipalities, district boards), about a twelfth by registered teachers in schools not lower than the secondary school standard, and about a twelfth by registered graduates of not less than three years' standing. And the rest are nominated by the Governor from among persons who have distinguished themselves in art, science, literature, co-operation and social service. (ART. 171). Under certain circumstances a person may be disqualified from being a member (ART. 190-193).

Administrative Units: The principal unit of administration in a State is the district under a Collector and Magistrate. A collector is responsible to a Commissioner who heads a Division or to the Board of Revenue depending upon the practice of a particular State. A District Magistrate is responsible for the maintenance of law and order and leads the district police force.

Language : The language by which the business of the State Legislatures is conducted is in the official language of the State or Hindi or English provided that in certain cases the Speaker may allow a member to address the House in his mother-tongue.

Legislative Procedure : The procedure followed is similar to that followed in the Union Parliament in respect of bills except Money Bills which procedure is contained in ART. 198 and 207. Annually a financial statement like the Union Budget is also introduced and passed by the House. (ART. 202).

Immunity of Members : Similar provisions as for the Parliament exist in respect of the State Legislatures and members exercising their rights.

THE UNION TERRITORIES : Special provisions relating to the administration of the Union Territories are provided under Part VIII of the Constitution and the provisions apply specifically to functions named in the Articles (ART. 239-241).

ADMINISTRATION OF JUSTICE

Supreme Court: (ART. 124-147): The Supreme Court of India consists of a Chief Justice and not more than 17 judges appointed by the President.

Retirement: At the age of 65.

Qualifications: For appointment as a judge of the Supreme Court a person has to be a citizen of India and must have been for at least 5 years a judge of a High Court or of two or more such Courts in succession; or an advocate of a High Court or two or more such Courts in succession for at least 10 years; or, he must be in the opinion of the President an eminent jurist.

Removal: A judge of the Supreme Court cannot be removed from office except by an order of the President passed after an address by each House of Parliament, supported by a majority of the total membership of that House voting, has been presented to the President in the same session for such removal on the ground of proved misbehaviour or incapacity.

Original Jurisdiction: The Supreme Court has an exclusive original jurisdiction which extends to all disputes between the Union and one or more States or between two or more States *inter se* (ART. 131). In addition to this and more significantly, Article 32 of the Constitution gives an extensive original jurisdiction to the Supreme Court to enforce fundamental rights guaranteed under Part III of the Constitution, by enabling it to issue writs, directions or orders including writs of *habeas corpus, mandamus,* prohibition, *quo warranto* and *certiorari.* The right guaranteed by ART. 32 cannot be suspended except as provided in the Constitution.

Advisory Jurisdiction: The President may consult the Supreme Court on any question of fact or law of public importance.

Appellate Jurisdiction: The Supreme Court can be invoked by a certificate of the High Court concerned or by special leave granted by the Supreme Court, in respect of any judgement, degree or final order of the High Court in cases involving substantial questions of law as to the interpretation of the Constitution. (ART. 132).

Civil Appeals: An appeal also lies from a judgement of a Division Bench of a High Court in a civil proceeding if the High Court certifies that the case involves a substantial question of general importance and which, in the opinion of the High Court, needs to be decided by the Supreme Court. (ART. 133).

Criminal Appeals: An appeal to the Supreme Court lies if the High Court (*a*) has on appeal reversed an order of acquittal of an accused person and sentenced him to death; (*b*) has withdrawn for trial before itself any case from any court subordinate to its authority and has in such trial convicted the accused person and sentenced him to death; or (*c*) certifies that the case is a fit one for appeal to the Supreme Court. Parliament is authorised to confer on the Supreme Court any further powers to hear and entertain appeals from any judgement, final order or sentence in a criminal proceeding of a High Court in Indian territory. (ART. 134).

Apart from these provision is also made for special leave to appeal to the Supreme Court from any judgement, decree, sentence, determination or order from any cause of any matter passed by a Court or tribunal. But leave is at the discretion of the Supreme Court and is not one as of right. (ART. 136).

By the 42nd Constitutional Amendment where cases involving the same or substantially the same questions of law of general importance are pending before the Supreme Court and one or more High Courts the Attorney General can move the Supreme Court to withdraw the cases pending before the High Court or High Courts to itself and dispose of the same. Further the Supreme Court has been empowered to transfer cases from one High Court to another High Court, if it is expedient for the ends of justice so to do. (ART. 139A).

High Court (ART. 214-231): Every State has a High Court of its own except in the case of Assam and Nagaland and Punjab and Haryana who share one each between them. Delhi has a High Court of its own.

Appointment: High Court judges are appointed by the President after consulting the Chief Justice of India, the Governor of the State and the Chief Justice of the High Court. They retire at the age of 62.

Qualifications: To be appointed a person has to be a citizen of the country who has either held judicial office or practised as an advocate for 10 years in any State; or he must be, in the opinion of the President, an eminent jurist.

Removal: Article 124 (4), which lays down the procedure for the removal of a Supreme Court judge, applies to the High Court judges also.

Jurisdiction: The jurisdiction as well as the laws administered by a High Court can be altered both by the Union and State Legislatures. Certain High Courts, like those at Bombay, Calcutta and Madras, have Original and Appellate jurisdictions. Under the Original jurisdiction suits, where the subject matter is valued at Rs. 25,000 or over, can be filed directly in the High Court. Under the Appellate jurisdiction only appeals from lower courts and appeals from suits, filed on the Original side of the High Court, can be entertained. Most High Courts have only appellate jurisdiction. Two important aspects of this jurisdiction are that the High Courts are also empowered to issue writs, directions, orders like the Supreme Court for enforcing the Fundamental Rights and in cases where the petitioner can satisfy the court that he has no other remedy, and there is a contravention of a statutory provision causing substantial injury to the petitioner or there is an illegality resulting in substantial failure (Art. 226 amended by the 42nd Constitutional Amendment). The other aspect is the power of superintendence over all subordinate Courts except those inferior courts whose judgement is not otherwise subject to appeal or revision. (ART. 227)

Subordinate Courts: (ART. 233-237): Except for minor variations, the structure and functions of the subordinate courts are uniform throughout the country. A State is divided into a number of districts, each under the jurisdiction of a principle civil court presided over by a District Judge. Subordinate to a District Judge is a hierarchy of different grades of civil courts.

The constitution and organisation of criminal courts and their procedure are regulated by the Code of Criminal Procedure 1898, as amended from time to time. In every district there is a District Magistrate and under him a number of subordinate magistrates of various grades sitting at various places. These Magistrates try and dispose the cases involving a sentence not exceeding imprisonment for two years.

Sheriffs and Official Assignees are attached to the High Courts of Bombay, Calcutta and Madras.

There are Official Assignees in three States—Maharashtra, W. Bengal and Tamil Nadu. The appointment is made by the Chief Justice of the High Court concerned.

In addition to the Official Assignee, a Deputy Official Assignee may also be appointed. Another officer of the court is the Insolvency Registrar who may be vested with the powers mentioned in section 6 of the Presidency Towns Insolvency Act.

Tribunals : Part XIVA has been added by the 42nd Amendment. Parliament may set up Administrative Tribunals for the Union and for each State or for two or more States and define the jurisdiction and powers of such tribunals for determining disputes relating to the recruitment and conditions of service of Union Government servants and servants of the States including the employees of any local or other authority within the territory of India or under the control of the Government of India or of a Corporation owned or controlled by Government. (ART. 323A)

ART. 323B provides for the creation of a hierarchy of Tribunals for the determination of disputes, complaints and offences respectively on various matters specified therein.

RELATIONS BETWEEN THE UNION & THE STATES

Legislative Relations : Under the Constitution, Parliament has the power to make Laws for the whole of or any part of the territory of India and the State Legislatures have the power to make Laws for the State. The subjects on which Legislation can be made are specified in the Seventh Schedule and Parliament has the exclusive right to legislate in respect of items appearing in List I (called the "Union List") and the State Legislatures have the exclusive power to make Laws in relation to items appearing in List II (called the "State List"). Both Parliament and the State Legislatures have the power to legislate in respect of items appearing in List III (called the "Concurrent List"). Provision is made in the constitution in relation to any inconsistency of laws made by the State Legislatures and Laws made by Parliament, as to which will prevail and for how long if both legislate in respect of the same subject. Parliament is also given the power to legislate on items exclusively reserved in the State List during an Emergency (ART. 245-254).

The Union List has 97 items including defence, armed forces, atomic energy, preventive detention, foreign affairs, citizenship, railways, highways, shipping, posts & telegraphs, currency, foreign exchange, incorporation, income tax, excise duty, estate duty etc. The State list has 66 items including public order, police, public health, communications, agriculture, forests, fisheries, markets, money lending, betting and gambling, taxes on lands and buildings, taxes on electricity, octroi, taxes on luxuries, entertainment etc. The concurrent list has 47 items including criminal law, marriage and divorce, transfer of property, contracts, trusts and trustees, contempt of court, prevention of cruelty to animals, trade unions, charities, newspapers, stamp duties, fees, evacuee property, price control etc.

Administrative Relations : The executive power of the State is exercised in compliance with laws made by Parliament and must not impede or prejudice the executive power of the Union. The other aspects of the general relationship are contained in ART. 256-263.

By the 42nd Constitutional Amendment the Union has been empowered to send any armed force or other force of the Union for dealing with any grave situation of law and order in any State. Such force shall act in accordance with the directions of the Union Government and shall not be subject to the control of the State Government. Parliament is also empowered to define by law the powers, functions and the liabilities etc., of the members of such force, when deployed in a State, during the period of deployment. (ART. 257A).

FINANCE, PROPERTY, CONTRACTS & SUITS (ART. 264-300): Under the Constitution no tax can be levied or collected except by authority of law (ART. 265). All revenues of the Union and all Laws in whatever form raised by it, are made part of the "Consolidated Fund of India" and all revenues of the State and Laws raised by it shall form part of the "Consolidated Fund of the State". Parliament is also empowered by law to establish a "Contingency Fund" (ART. 266-267). Under the Constitution provision is made for duties levied by the Union but which are collected and appropriated by the States such as stamp duties and excise duties on medicinal and toilet preparations and also taxes collected by the Union but assigned to the States such as taxes on succession, estate duty, taxes on railway fares and freights etc. and also income tax, which is collected by the Union but, distributed, in accordance with the constitution between the States and the Union (ART. 268-270). Similarly, provision relate to excise duties collected by the Union but distributed between the States and the Union if a law so provides for their distribution. Provision is also made for grants by the Union to certain States and for the setting up of a Finance Commission.

Under the Constitution the property of the Union is exempt from taxes by the State and vice-versa (ART. 285 and ART. 289). States are restricted from imposing taxes on sales or purchases of goods which are sales or purchases outside the State or in the course of import or export from the territory of India. (ART. 286).

Under the Constitution the executive power of the Union and that of the State Government extends to borrowing on the security of the respective Consolidated Funds to the extent permitted by Parliament and the State Legislatures. (ART. 292-293)

From the commencement of the Constitution all property and assets which vested in His Majesty for the purposes of the Government of the Dominion of India and all property and assets which vested in His Majesty for the purposes of the Government of the Governor's Province vested in the Union and in the States respectively. Similarly all rights, liabilities and obligations were continued as the rights, liabilities and obligations of the Government of India and the Government of the State respectively. (ART. 294-295).

All lands, minerals, etc. underlying the ocean within the territorial waters or the continental shelf of India vest in the Union and are held for the purposes of the Union. (ART. 297).

All contracts, made in the exercise of the executive power of the Union or a State are made in the name of the President or a Governor respectively though no personal liability attaches in respect thereof on the President or the Governor. (ART. 299).

The Government of India may sue or be sued by the name of the Union of India or the Government of the State may sue or be sued by the name of the State. (ART. 300).

TRADE, COMMERCE & INTERCOURSE : (ART. 301-307): Trade, commerce and intercourse throughout the territory of India is free and this applies to both inter-state and intra-state trade, commerce and intercourse. Parliament and the legislatures of the States are empowered, however, to impose such restrictions as may be required in the public interest. (In the case of the States the restrictions must also be reasonable and no Bill making such restrictions could be introduced in the Legislature without the previous sanction of the President.)

SERVICES UNDER THE UNION & THE STATES: (ART. 308-323): Persons who are members of the civil service of the Union or the civil service of a State or are holders of civil posts cannot be removed or dismissed by an authority subordinate to that by which they were appointed. Further no person can be dismissed or removed or reduced in rank except after an inquiry in which the person is informed of the charges and given a reasonable opportunity of being heard in respect of the charges. (ART. 311).

Administrative Tribunals may be set up for determination of disputes and complaints relating to the recruitment and conditions of service of persons in service of the Union or a State (see above *Administration of Justice*).

Public Service : There is a Public Service Commission for the Union and for each of the States. The Commission must be consulted in all matters relating to methods of recruitment, on the principles in making appointments, promotions and transfers, on all disciplinary matters and on any claims or awards. These functions can be extended by law. The Commissions are required to present annually to the President or the Governor of the State a report of the work done by the Commission.

ELECTIONS : (ART. 324-329) : All elections are directed and controlled by an Election Commission whose head is the Chief Election Commissioner appointed by the President. All elections to the Lok Sabha and to the Legislative Assemblies of the States are on the basis of adult suffrage. Seats are reserved in the Lok Sabha and the Legislative Assemblies of the States for the Scheduled Castes and Tribes and provision may be made for seats to be reserved for the Anglo Indian community. These special provisions are to have effect for thirty years from the commencement of the Constitution. (ART. 330-334).

Interference by Courts in Election Matters : The Courts are banned from questioning elections to Parliament or the State Legislatures except by Law made by the appropriate Legislature. By an amendment the elections of the President, the Vice-President, the Prime Minister and the Speaker of the Lok Sabha have been made non-justiciable in a Court of Law and can be called in question only before an authority to be appointed by a Law to be made by Parliament and all decisions of that authority cannot also be questioned in a Court of Law. (39th Constitution Amendment.) (ART. 329A).

OFFICIAL LANGUAGE: (ART. 343-351): The official language of India is Hindi in the Devnagri script and the form of numerals for official purposes shall be the international form of Roman numerals. English, which was originally to continue as the official language till 26th January, 1965, has been, under the Official Languages Act, 1963, continued in addition to Hindi.

The language to be used in the Supreme Court and in the High Courts and for Acts, Bills etc. is English.

EMERGENCY : (ART. 352-360) : If the President is satisfied that a grave emergency exists whereby the security of India or any part of the territory thereof is threatened by war, or external aggression, or internal disturbance he may by proclamation make a declaration to that effect By the 42nd Constitutional Amendment the President is now enabled to make a proclamation of Emergency not only in respect of the whole of India but also in respect of a part of the Country or, as the case may be, to restrict the proclamation of Emergency made in respect of the whole of India to a part of the Country. A proclamation may be revoked or banned by a subsequent proclamation. The declaration shall operate only for a period of two months unless before that it has been approved by resolution of both Houses of Parliament. The President may also make such declaration before any actual threat and if he is satisfied that there is imminent danger thereof. The President is empowered to make more than one Declarations of Emergency on separate grounds and the declarations can operate simultaneously. The satisfaction of the President is final and conclusive and it cannot be questioned in a Court of Law nor can its validity or its continued operation be questioned in a Court of Law. (ART. 352).

Effect of Proclamation of Emergency: While a proclamation of Emergency is in operation, (1) the executive power of the Union is extended to giving directions to a State or where the proclamation of Emergency is in force only in a part of the Country, to any other State other than the State in which Emergency is in force, if the security of the Country or any part thereof is threatened by activities in or in relation to the part of the Country in which the Emergency is in force; as to the manner in which its executive power is to be exercised and also to make laws with respect to any matter including conferring powers and imposing duties upon the Union or officers and authorities; (2) similarly Parliament is empowered to legislate in respect of items contained in the State List of Schedule Seven of the Constitution; (3) the President may make modifications and exceptions as far as the distribution of revenues under the Constitution are concerned (see above: Finance, Property, Contracts, Suits, ART. 268-279); (4) the Fundamental Rights under ART. 19 shall be suspended and it will be competent for the State to make Laws and to take executive action which the State would have otherwise been incompetent to make or take because of ART. 19 (the Law, to the extent of the incompetency ceasing to have effect after the Proclamation ceases to operate); (5) empower the President by order to declare that the right to move a Court for the enforcement of such of the Fundamental Rights as may be specified in that order as well as all pending proceedings for the enforcement of the rights shall remain suspended for the time the Proclamation operates or for such shorter time as may be specified in the Order and (6) by the 38th Constitution Amendment empower the State to make Laws or to take executive action which the State would have been otherwise incompetent to make or take because of such of the Fundamental Rights which are suspended by the order (the law ceasing to have effect to the extent of its incompetency on the Proclamation ceasing to operate). (ART. 353, ART. 250, ART. 354, ART. 358, ART. 359).

Proclamations of Emergency & Presidential Orders : On 26th Oct., 1962, the President made the first Proclamation of Emergency under ART. 352 on the ground that the security of India was threatened by the Chinese invasion. On 3rd Nov., 1962, a Presidential order was made under ART. 359 suspending the rights conferred by ART. 21 and 22. On 11th Nov., 1962 ART. 14 was added to the Presidential order. The Proclamation of Emergency was revoked on 10th Jan., 1968.

On 3rd Dec., 1971 the President made a second Proclamation of Emergency under ART. 352 on the ground that the security of India was threatened by the war with Pakistan in Dec. 1971. This has since been revoked.

On 25th June, 1975 the President made a third Proclamation of Emergency under ART. 352 on the ground that the security of India was threatened by internal disturbances. On 27th June, 1975 a Presidential Order was made under ART. 359 suspending the rights conferred by ART. 14, 21 and 22 and on 8th Jan., 1976, ART. 19 was added to the order. This order has also been revoked

Financial Emergency: (ART. 360): If the President is satisfied that the financial stability of the country is threatened, he may, by a Proclamation, make a declaration and in consequence the executive authority of the Union is considerably extended and it is empowered to suitable action.

President's Rule: The President may, on receipt of a report from the Governor of a State or otherwise, if satisfied that a situation has arisen in which the government of the State cannot be carried on in accordance with the Constitution, by Proclamation assume to himself all or any of the functions of the Government of the State and all or any of the powers vested in the Governor, declare that the powers of the Legislature of the State are exercisable by Parliament except that the President cannot assume the powers vested in the High Court. This Proclamation is popularly known as 'President's Rule' and all such Proclamations have to be laid before Parliament within two months and approval obtained to continue the Proclamation. Such a Proclamation approved by the Parliament ceases to be in operation after a period of one year unless revoked earlier and may be renewed for a period of one year at a time but in no case beyond a total period of three years. The satisfaction of the President is final and conclusive and justifiable. Consequential provisions regarding Parliament's authority to legislate on such a declaration are provided under the Constitution. (ART. 356-7)

AMENDMENT OF THE CONSTITUTION: (Art. 368): The extent of the power to amend the Constitution and whether all parts of the Constitution were amendable was the subject of several decisions of the Supreme Court. In the last decision, popularly known as the "Fundamental Rights Case" the Supreme Court has held that the power to amend applies to even the Fundamental Rights (which it had previously held to be not amendable) but that Parliament could not amend the "basic features" of the Constitution. ART. 368 was itself amended by the 24th Constitution Amendment which was challenged in the Fundamental Rights case and that amendment was upheld by the Supreme Court. The new ART. 368 contains the procedure for amendment. The amendment can be done only by the introduction of a Bill for that purpose in either the Lok Sabha or the Rajya Sabha and the Bill has to be passed by each House by a majority of the total membership of that House and by a majority of not less than two-thirds of the members of that House voting and after the President has assented to it the Constitution will stand amended. Certain provisions of the Constitution like the provisions relating to the Union Judiciary, the High Courts, the distribution of Legislative Powers or ART. 54, 55, 73, 162 and 241 or of any of the lists contained in the Seventh Schedule in the representation of the States in Parliament and an amendment to any of the provisions of this Article have in addition to the above to be ratified by the legislatures of at least half the States by resolutions to that effect before the Bill can be presented to the President for his assent.

The 42nd Constitutional Amendment has amended ART. 368 to provide that no amendment of the Constitution made before or after the 42nd Amendment shall be questioned in any court on any ground, and further, that Parliament's power to amend the Constitution under ART. 368 shall be without any limitation.

Section 59 of the Constitution (Forty-second Amendment) Act, 1976 has conferred power on the President to remove by an order, any difficulty that may arise during the period of transition from the old provisions of the Constitution to the new provisions as amended.

Amendments made to the Constitution: Till 1980, 44 amendments had been made to the provisions of the Constitution.

The Constitution (45th Amendment) Bill extending reservation of seats in the State Assemblies and Lok Sabha for Scheduled Castes, Scheduled Tribes and Anglo-Indians for a period of 10 years has been passed by the Lok Sabha on Jan, 24, 1980 and okayed by Rajya Sabha on Jan. 25, 1980

The Constitution (46th Amendment) Bill, 1981 which seeks to amend articles 269, 286, 366, of the Constitution, to validate laws levying tax on the supply of food or drink and also the collection or recoveries made by way of tax under any such law is before the Parliament.

Laws of Parliament enacted during 1981: The following 62 bills were passed by Parliament in 1981. (The dates on which the President of India gave his assent are given in brackets against each bill):

1. The Life Insurance Corporation (Amendment) Bill, 1981 (17-3-81); 2. The Appropriation (Vote on Account) Bill, 1981 (23-3-81); 3. The Appropriation Bill, 1981 (23-3-81); 4. The Appropriation (No. 2) Bill, 1981 (23-3-81); 5. The Appropriation (No. 3) Bill, 1981 (23-3-81); 6. The Delhi Sikh Gurdwaras (Amendment) Bill, 1981 (25-3-81); 7. The Special Bearer Bonds (Immunities and Exemptions) Bill, 1981 (27-3-81); 8. The Appropriation (Railways) Bill, 1981 (27-3-81); 9. The Appropriation (Railways) No. 2 Bill, 1981 (27-3-81); 10. The Appropriation (Railways) No. 3 Bill, 1981 (27-3-81); 11. The Appropriation (Railways) No. 4 Bill, 1981 (27-3-81); 12. The Manipur Appropriation (Vote on Account) Bill, 1981 (29-3-81); 13. The Manipur Appropriation Bill, 1981 (29-3-81); 14. The Air (Prevention and Control of Pollution) Bill, 1981 (29-3-81); 15. The Appropriation (No. 4) Bill, 1981 (1-5-81); 16. The Finance Bill, 1981 (12-5-81); 17. The Oil and Natural Gas Commission (Amendment) Bill, 1981 (27-8-81); 18. The Essential Commodities (Special Provisions) Bill, 1981 (2-9-81); 19. The Prevention of Blackmarketing and Maintenance of Supplies of Essential Commodities (Amendment) Bill, 1981 (2-9-81); 20. The Assam Appropriation Bill, 1981 (2-9-81); 21.

The Salary, Allowances and Pension of Members of Parliament (Amendment) Bill, 1981 (4-9-81); 22. The Income-tax (Amendment) Bill, 1981 (4-9-81); 23. The Compulsory Deposit Scheme (Income-tax Payers) Amendment Bill, 1981 (4-9-81); 24. The Customs Tariff (Amendment) Bill, 1981 (4-9-81); 25. The Coal Mines Labour Welfare Fund (Amendment) Bill, 1981 (9-9-81); 26. The High Court at Bombay (Extension of Jurisdiction to Goa, Daman and Diu) Bill, 1981 (9-9-81); 27. The Delhi University (Amendment) Bill, 1981 (11-9-81); 28. The Export-Import Bank of India Bill, 1981 (11-9-81); 29. The British India Corporation Limited (Acquisition of Shares) Bill, 1981 (11-9-81); 30. The Cine-workers Welfare Cess Bill, 1981 (11-9-81); 31. The Dalmia Dadri Cement Limited (Acquisition and Transfer of Undertakings) Bill, 1981 (15-9-81).

32. The Victoria Memorial (Amendment) Bill, 1981 (17-9-81); 33. The Cine-workers Welfare Fund Bill, 1981 (17-9-81); 34. The Appropriation (Railways) No. 5 Bill, 1981 (18-9-81); 35. The State of Nagaland (Amendment) Bill, 1981 (18-9-81); 36. The Working Journalists and other Newspaper Employees (Conditions of Service) and Miscellaneous Provisions (Amendment) Bill, 1981 (18-9-81); 37. The Appropriation (No. 5) Bill, 1981 (19-9-81); 38. The Income-tax (Second Amendment) Bill, 1981 (19-9-81); 39. The Assam State Legislature (Delegation of Powers) Bill, 1981 (22-9-81); 40. The Essential Services Maintenance Bill, 1981 (23-9-81); 41. The Burmah Oil Company (Acquisition of Shares of Oil India Limited and of the Undertakings in India of Assam Oil Company Limited and the Burmah Oil Company (India Trading) Limited Bill, 1981 (28-9-81); 42. The Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Bill, 1981 (28-9-81); 43. The Merchant Shipping (Amendment) Bill, 1981 (28-9-81); 44. The Sugar Undertakings (Taking over of Management) Amendment Bill, 1981 (30-11-81); 45. The Oil Industry (Development) Amendment Bill, 1981 (10-12-81); 46. The Economic Offences (Inapplicability of Limitation) Amendment Bill, 1981 (15-12-81); 47. The Beedi Workers Welfare Cess (Amendment) Bill, 1981 (15-12-81); 48. The Anti-Apartheid (United Nations Convention) Bill, 1981 50. The Cine-workers and Cinema Theatre Workers (Regulation of Employment) Bill, 1981 (24-12-81); 51. The Khuda (Regulation of Employment) Bill, 1981 (24-12-81); 51. The Khuda Bakhsh Oriental Public Library (Amendment) Bill, 1981 (24-12-81); 52. The Rampur Raza Library (Amendment) Bill, 1981 (24-12-81); 53. The Kerala Appropriation (No. 4) Bill, 1981 (24-12-81); 54. The Appropriation (Railways) No. 6 Bill, 1981 (24-12-81); 55. The Appropriation (Railways) No. 7 Bill, 1981 (24-12-81); 56. The Appropriation (No. 6) Bill, 1981 (28-12-81); 57. The Appropriation (No. 7) Bill, 1981 (28-12-81); 58. The Plantations Labour (Amendment) Bill, 1981 (29-12-81); 59. The Indian Iron and Steel Company (Acquisition of Shares) Amendment Bill, 1981 (29-12-81); 60. The Assam Appropriation (No. 2) Bill, 1981 (29-12-81); 61. The National Bank for Agriculture and Rural Development Bill, 1981 (30-12-81); 62. The Aligarh Muslim University (Amendment) Bill, 1981 (31-12-81).

JUSTICE—PRESENT POSITION

Supreme Court: At the beginning of the year 1982 the number of the Supreme Court Judge was 14 excluding the Chief Justice (under the Supreme Court Amendment Act, 1960). The pendency of cases increased from 48,643 in 1981 to 63,041 as on 31st Dec., 1982.

POSITION OF CASES

Period	Institution	Disposal	Pendency
1977	14,501	N.A.	18,215
1978	20,840	17,095	21,960
1979	20,754	15,833	26,881
1980	26,365	16,953	36,293
1981	31,040	18,690	48,643
1982	43,510	29,112	63,041

High Courts: The number of High Court Judges in position as on April 1, 1982 was 321 against a total sanctioned strength of 408 (including newly created posts). The position of institution, disposal and pendency of cases in High Courts from 1978 to 30th June, 1982 was as follows:

Year	Institution	Disposal	Pendency
1978	485,880	479,523	613,799
1979	530,614	527,174	617,239
1980	555,719	494,007	678,951
1981	638,731	472,460	845,222
1982*	307,741	234,330	937,818

*As on 30th June, 1981.

Sessions Courts: The pendency of cases in the Sessions Courts increased from 159,489 to 175,155 at the end of 1981. The disposal of cases increased from 190,327 in 1980 to 203,471 in 1981.

Magisterial Courts: The number of cases pending at the end of 1981 was 6,213,677 against 5,951,299 in the previous year. Institution of cases during the years 1980 and 1981 was 7,467,589 and 7,695,235 while disposals were 6,905,714 and 7,431,454 respectively.

Civil Courts: The pendency of cases on the original side on December 31, 1981 was 3,026,315 against 2,911,820 in 1981. The disposals during 1980 and 1981 on the original side were 2,482,891 and 2,542,330 respectively.

The pendency on the appellate side at the end of 1980 and 1981 was 209,218 and 223,136 while disposals during 1980 and 1981 were 197,776 and 199,623 respectively. The institutions during 1980 and 1981 respectively were 206,138 and 231,541.

Number of courts functioning in the country at District level at the end of December 1981: District/Additional District & Sessions Judge/Asst. Sessions Judge/Subordinate Judge Courts: 2,543; Munsifs/Magistrate Courts: 4,793.

NUMBER OF JUDGES

Supreme Court: At the beginning of 1982, the maximum permissible strength of the Supreme court was 18 (excluding the Chief Justice).

High Courts: On 1-4-1982, 321 judges were in position against a total strength of 408.

REORGANISATION OF STATES

Under the Constitution of the Government of India which came into being on January 26, 1950, the following States were constituted: 9 Part A States (Assam, Bihar, Bombay, Madhya Pradesh, Madras, Orissa, Punjab, Uttar Pradesh, and West Bengal); 8 Part B States (Hyderabad, Jammu & Kashmir, Madhya Bharat, Mysore, Patiala-East Punjab (PEPSU), Rajasthan, Saurashtra and Travancore-Cochin); 10 Part C States (Ajmere, Bhopal, Bilaspur, Coorg, Delhi, Himachal Pradesh, Kutch, Manipur, Tripura and Vindhya Pradesh) and Part D territories and other areas (Andaman & Nicobar Islands).

But in 1956 under the States reorganisation Act, following the recommendation made in the report of the States Reorganisation Commission of the Government of India, the distinction between the Part A, B and C States was abolished, Instead, two broad categories for the units of the Indian Union were established called States and Union Territories.

In August 1961, the former Portuguese territory of Dadra and Nagar-Haveli became Union territory. Goa, Daman and Diu became Union territory in March 1962.

In August 1962 the former French territories of Pondicherry, Karaikal, Mahe and Yanam were formally transferred to India and became a Union Territory.

ANDAMAN AND NICOBAR ISLANDS

(Union Territory)

The Andaman and Nicobar Islands, the continental islands often called the Bay Islands, were first occupied by the Portuguese, then by the Dutch and finally by the British. They became penal settlements for convicts. The islands are a group of 550 islands, most of them too small to be inhabited. The Nicobar group are south of the Andaman. On November 1, 1956, the Andaman and Nicobar Islands became Union Territory under the President of India. The Chief Commissioner heads the local administration with headquarters at Port Blair.

HEADQUARTERS: Port Blair; **Population** (1971 Census): 49,634; **Area of the Territory:** 8,293 sq. kms. (Andamans 6,340 sq. kms., Nicobars 1,953 sq. kms.); **Population** (1981 census): 188,741; **Density:** 23 per sq. km. **Sex ratio:** 760 females per 1,000 males; **Literacy:** 51.27 per cent.

No. of villages: 516 (both inhabited and uninhabited) as per 1981 census.

Boundary: The Andamans are a string of islands of various sizes, large and small, lying between 6° and 140°N. latitude and from 92° and 94°E. longitude in the Bay of Bengal. They have an average width of 24.13 kms. and an axis of about 321.8 kms. The northernmost 'Land fall Island' is 901.13 kms. from the mouth of the river Hooghly. The headquarter Port Blair is about 1,255 kms. and 1,190 kms. from Calcutta and Madras respectively.

The main part of the Andaman group is composed of five large islands viz., North Andaman, Middle Andaman, South Andaman, Baratang and Rutland Islands generally known as the Great Andamans. To the south of the Great Andamans is the island of Little Andaman. These islands consist mostly of a mass of hills covered with dense tropical forests and separated by three straits and several creeks.

The Nicobar Islands from Car Nicobar in the north to Great Nicobar in the South intervene between Little Andaman and Sumatra. The Southern island of Great Nicobar is about 480 kms. from Port Blair. These islands are partly hilly and partly flat. The most important harbour in the area is Nancowrie reputed to be the finest harbour in the east.

Population according to language spoken: Sanskrit: nil, Sindhi: 7, Tamil: 14,518, Telugu: 9,361, Urdu: 2,488, Assamese: 17, Bengali: 28,120, Gujarati: 159, Hindi: 18,499, Kannada: 201, Kashmiri: 8, Malayalam: 13,953, Marathi: 115, Oriya: 250, Punjabi: 1,023, Nicobarese: 17,955.

Climate: The Islands are exposed to both monsoons with north easterly gale from November to January and south westerly gale from May to October. The weather is good only from January to April and to some extent in October. The average rainfall is 318 cms. The temperature varies between 21°C and 34°C throughout the year.

AGRICULTURE

Total reporting area during 1980-81 was 75,707 hectares. The principal crops are rice, coconut and arecanut. Rice production during 1981-82 was 21,565 tonnes. Commercial production of rubber, coffee, red palm oil and spices like clove, cinnamon, nutmeg and black pepper is also considered good. About 16.45 per cent of the total working population is engaged in agricultural pursuits.

Forests: Forests cover an area of 7,144 sq.kms. These forests yield timber to the plywood and matchwood industries in addition to timber for constructional purposes.

The species of timber found in the forest region are mainly Padauk, Gurjan, White Chuglam, Papita etc. The Forest Department exports approximately 10,500 cubic metres of timber to the mainland.

Animal Husbandry: Veterinary hospitals 7; Veterinary dispensaries 28; Key village blocks 2; Key village units 7: Artificial insemination centres 2; Artificial insemination sub-centres 11; Govt. poultry farm 1; Govt. training centre 1; Diseases investigation laboratory 1; Fodder farm 1; Cattle breeding farm 1.

POWER

Electricity (1981-82): Installed capacity and generation: 1,002,706 KWH; total consumption: 9,588,364 KWH.
Rural electrification: Villages electrified: 180.

LABOUR AND INDUSTRIES (as on 1.1.1983)

Large and medium industrial units: 6; small industrial units: 164; industrial training centres: 9; industrial estate: 1; aid given by State to industries: Rs.0.21 million; registered factories under Factories Act, 1948: 34; trade unions: 82; No. of strikes: 3; industrial disputes settled: 43; shops and commercial establishments: 764; theatres and restaurants: 47; printing presses: 11.

Employment Exchanges (1981-82): No. of exchanges: 1; Applicants on live register: 12,137; placements upto December 1982: 3,338.

Communications (1982)

Road Transport: Buses owned by State Transport Dept.: 105; no. of routes operated: 93; route length: 1,852 km.; distance covered: 1,632,444 km.; Motor vehicles—scooters: 981; motor cycles: 433; lorries: 523; buses: 108; taxies: 92; cars and jeeps: 397; Others: 263.

Shipping: Four passenger cum cargo ships viz. M.V. Harshavardhana, M.V. Andamans, M.V. Akbar and T.S.S. Nancowrie and two cargo ships viz. M.V. Diglipur and M.V. Shompen ply between Mainland Ports and Port Blair. The passenger vessels normally ply from Calcutta and Madras and sometimes from Visakhapatnam.

As far as inter-island communication is concerned, ferry vessels viz. S.S. Cholunga, T.S.S. Yerawa and M.V. Onge ply on a regular schedule to the northern as well as southern group of Islands. In addition to the above vessels, some other small vessels ply in the narrow creeks and harbours carrying passengers and cargo to places inaccessible to the large vessels. The M.V. Little Andaman and M. V. Yamuna carry out ferry services between Port Blair and Rangat viz. Havelock and Neil Island. The M.V. Ganga operates Harbour Ferry Services at Port Blair. The shallow draft vessels procured subsequently under plan schemes viz., M.V. Chital, M.V. Chinkara, M.V. Sambur, M.V. Narmada, M.V. Gomati and M.V. Kadamtala also have been put into service in the above inter-island lines and harbour ferries.

Harbours: Port & Harbour facilities have been provided at Diglipur, Mayabunder, Rangat, Havelock, Neil, Port Blair and Hut Bay (Little Andaman) and at Malacca (Car Nicobar), Katchal, Kamorta and Campbell Bay in Nicobar Group of Islands.

Air Traffic: Calcutta to Port Blair: Passengers carried (1982): 17,691; freight carried: 160,063 kg.; mail carried: 67,323 kg. Madras to port Blair (with effect from November 1982): Passengers carried: 1,254; freight carried: 7,507 kg.; mail carried: 63 kg.

Posts and Telegraphs (1982): Post offices/sub-offices: 34; branch post offices: 44; telegraph offices: 37; telephone exchanges: 6; telephone connections: 753; telephone extensions: 213; public call offices: 20.

PUBLIC HEALTH (1982)

All treatment, medical or surgical, is completely free. Specialised treatment is also free. For specialised treatment, patients are sent to the mainland at Government expense.

The G.B. Pant Hospital, Port Blair, is the largest civil hospital with 192 beds. All types of treatment, except for cancer and mental diseases, are provided here.

There is a 50 bed T.B. hospital and a 20-bed isolation hospital at Port Blair. Besides there are 11 civil hospitals, 64 dispensaries, 2 primary health centres and 3 sub centres. The hospitals are located at Port Blair, Bambooflat, Car Nicobar, Nancowric, Campbell Bay (Great Nicobar), Rangat, Mayabunder, Diglipur, Billiground, Long Island and Havelock. The Primary Health Centres are located at Wimberlygunj (South Andaman) and Kapanga (Katchal). The total bed strength of hospitals and primary health centres is 613.

No. of doctors: 62; No. of nurses: 130; no. of sterilisation operations performed 948.

EDUCATION (1982-83)

Types of Institutions	Number	Number of students		
		Boys	Girls	Total
Pre-Primary	14	500	494	994
Junior Basic	192	8,031	6,967	14,998
Senior Basic	37	7,401	6,033	13,434
High Schools	12	3,851	3,116	6,967
Higher Secondary	17	6,955	5,015	11,970
Trs. Trg. Institute	1	45	56	101
Govt. College	1	245	142	387
B.Ed. College	1	30	20	50
Total	275	27,058	21,843	48,901

GENERAL

Press: "Daily Telegrams" published from Port Blair in English and "The Andaman Nicobar Dweep Samachar" in Hindi.

Panchayats: 38 Gram Panchayats and 38 Nyaya Panchayats continue to function in the South, Middle and North Andamans. In the Nicobar group of islands, the traditional Panchayats continue to function.

Banks: The State Bank of India has branches at Port Blair, Rangat, Hut Bay, Car Nicobar, Nancowrie, Diglipur, Garacharama, Bambootlat, Chouldari, Mithakari, Manglutan and Aberdeen Bazaar.

The Andaman and Nicobar State Cooperative Bank Ltd. functions with its headquarters at Port Blair with eight branches at Diglipur, Mayabunder, Wimberlygunj, Haddo, Thusnabad, Baratang, Bambooflat and Rangat.

The Syndicate Bank has three branches at Port Blair, Wimberlygunj and Campbell Bay.

The Canara Bank has got a branch at Port Blair.

Tourism: Total tourist accommodation in Port Blair: 315. Tourist arrivals: Domestic: 13,500; Foreign: 1,100.

ANDHRA PRADESH

Andhra Pradesh, known as the "river State" of the South and the first State in India to be formed mainly on the linguistic basis, was established on October 1, 1953. It was partitioned from Madras, the Telugu-speaking sector constituting the nucleus of the new State. On November 1, 1956, the Telangana area, part and parcel of the former Hyderabad State, comprising the districts of Hyderabad, Medak, Nizamabad, Karimnagar, Warangal, Khammam, Nalgonda and Mahbubnagar, some talukas of Raichur, Gulbarga and Bidar districts and some revenue circles of Nanded district were added to Andhra. On April 1, 1960 some areas of Chingleput and Salem districts of Madras were also transferred to Andhra. It is the fifth largest State, both in area and population, and a major link between the north and the south. Significantly, the Andhra agitation for the separation of the Telugu-speaking district from Madras State took a serious turn by the fast-unto-death of the Andhra Patriot, Potti Sriramulu. AP, as it is often called, comprises three distinct regions: (a) the coastal region of eight districts which goes broadly by the name of Andhra; (b) the four interior districts termed Rayalaseema and (c) the Telengana region consisting of Hyderabad and the nine adjoining districts.

CAPITAL: Hyderabad. **Area:** 172.65 sq. kms. **Population:** 2,528,200 (1981 provisional).

Area of the State: 275,068 sq. km. **Population:** 53,549,673; **Density:** 194 per sq. km.; **Sex Ratio:** 975 females per 1,000 males. **Literacy:** 29.94%.

The headquarters of the districts are the towns of the same name except for the following districts with the headquarters in the brackets: East Godavari (Kakinada); Rangareddy (Hyderabad); Krishna (Machilipatnam); Medak (Sangareddy); Prakasam (Ongole); and West Godavari (Eluru).

District	Headquarters	Area (sq. km.)	Population (1981 census)
Adilabad	Adilabad	16,128	16,39,003
Anantapur	Anantapur	19,130	25,48,012
Chittoor	Chittoor	15,152	27,37,316
Cuddapah	Cuddapah	15,359	19,33,304
East Godavari	Kakinada	10,807	37,01,040
Guntur	Guntur	11,391	34,34,724
Hyderabad	Hyderabad	217	22,60,702
Karimnagar	Karimnagar	11,823	24,36,323
Khammam	Khammam	16,029	17,51,574
Krishna	Machilipatnam	8,727	30,48,463
Kurnool	Kurnool	18,658	24,07,299
Mahabubnagar	Mahabubnagar	18,432	24,44,619
Medak	Sangareddy	9,699	18,07,139
Nalgonda	Nalgonda	14,240	22,79,685
Nellore	Nellore	13,076	20,14,879
Nizamabad	Nizamabad	7,956	16,79,683
Prakasam	Ongole	17,626	23,29,571
Rangareddy	Hyderabad	7,493	15,82,062
Srikakulam	Srikakulam	5,837	19,59,352
Visakhapatnam	Visakhapatnam	11,161	25,76,474
Vizianagaram	Vizianagaram	6,539	18,04,196
Warangal	Warangal	12,846	23,00,295
West Godavari	Eluru	7,742	28,73,958

Major cities with area in sq. kms. and population in thousands respectively: Hyderabad: 172.65-2,528.2; Vijayawada: 60.30-545.0; Guntur: 30.01-367.2; Visakhapatnam: 94.53-594.3; Warangal: 54.98-336.0; Rajahmundry: 43.90-267.7; Kakinada: 30.51-226.6; Machilipatnam: 23.93-138.5; Kurnool: 15.02-206.7; Nizamabad: 36.86-183.1; Tenali: 7.90-119.2; Eluru: 14.38-168.1; Nellore: 13.68-236.2.

No. of villages: 27,221; **No. of towns:** 234; **No. of taluks:** 303.

Boundaries: The State is surrounded in the east by the Bay of Bengal; in the south by Tamil Nadu; in the south-west by Karnataka; in the north-west by Maharashtra; in the north by Madhya Pradesh and in the north-east by Orissa.

State Language: Telugu is the language of the State with Urdu also being spoken by a large section.

AGRICULTURE

In 1981-82 — rice production was 7.86 m. tonnes, foodgrains production was 11.4 m. tonnes and area under foodgrains 9.22 m. hectares. Gross area sown was 13.04 m. hectares

Animal Husbandry: The total no. of livestock in the State (on April 15, 1977, when the last census was taken) was 31,471,647. 12,040,888 cattle, 7,162,893 buffaloes, 7,064,311 sheep, and 4,364,013 goats, 21,608,774 poultry.

Forests: Forests cover 64,154 sq. kms. of the State's area. Red Sanders, a monopoly of the State grows gregariously in the Seshachalam Hills, which also contain the sandal.

Forest area: In 1981-82: Teak was 72,702 hectares.; Bamboo 29,793 hectares.; Eucalyptus 19,042 hectares.; casaurina 16,303 hectares.; sandalwood 2,880 hectares.; red sanders 1,784 hectares ; silver oak 4,334 hectares. and cashew 24,873 hectares.

Forests revenue in 1981-82 was Rs. 355.274 million and expenditure Rs. 198.097 million.

A.P. Forest Development Corporation started functioning from June, 1975 to increase forest production by taking up commercial forestry with the help of institutional finances.

Fisheries: A.P. with a coastline of 982 kms. and a continental shelf covering an area of about 32,000 sq. miles has an estimated marine fisheries potential of 400,000 tonnes per year. According to a census by the Central Marine Fisheries, Research Institute Cochin, there were 453 fishermen's villages with a population of 0.326 million, 83,903 active fishermen, 456 mechanised and 36,01 non-mechanised boats and 379 landing centres. The marine fis landed in 1980 was 116,013 tonnes. There is a fisheries training institute one each at Kakinada and Machilipatnam.

The State Government is seeking, Dutch collaboration for the supply and construction of mechanised trawlers. An integrated Marine Fisheries Project, costing about Rs. 238.0 million out of which the world bank's advance is Rs. 150.5 million, is under execution.

IRRIGATION AND POWER PROJECTS

Major and Medium Irrigation: The cumulative potential created till the end of 1980-81 was about 1.259 million hectares under major and medium projects. The area actually utilised was only about 0.828 million hectares.

Some of the important completed projects at the end of 1980-81 with their potential created indicated in brackets, include the Prakasam Barrage (40,873 hectares), Tungabhadra High level canal-stage I (48,198 hectares), Low level canal (60,298 hectares), K.C. Canal (0.122 million hectares) and Kadam (47,920 hectares), the on-going projects of Nagarjunsagar (0.868 million hectares) and Sriramsagar (0.2967 million hectares).

The additional irrigation potential proposed to be created in the VI Plan is 8 to 9 million hectares. Out of which modernisation schemes will contribute 940,000 hectares, and the rest by ongoing schemes.

The VI Plan outlay for irrigation projected at Rs. 10,000 million by the State was reduced to Rs. 7,610 million by the Planning Commission in December 1980.

Minor Irrigation: The State Govt. formulated proposals seeking the aid of the world bank. They involve 146 minor irrigation schemes and 200 percolation tanks, creating an irrigation potential of about 232,403 hectares.

The gross irrigated area in the State 0.468 million hectares in 1981-82 and potential was 0.103 million hectares.

Power Projects: Installed capacity: 2297.9 m.w. in 1981-82; generation: 8,873.9 mkwh; no. of villages electrified: 19,284; no. of pumpsets: 496,675.

INDUSTRIES

Cycle and cycle accessories, steel furniture, scientific instruments, radios, tape recorders, electric measuring instruments, automobile parts, air conditioners, safety razor blades, PVC cables, switchgear, electrical accessories, stainless steel vessels, agricultural implements, TV sets, light and heavy engg., cement, fertilisers, oils (edible and non-edible), drugs and chemicals, food products, electrical and elctronic components, petroleum products, ship building and mineral products are some of the items manufactured in the State.

No. of Registered factories (in 1978-79), 8,836; no. of employees 622,000; productive capital Rs. 16,186 million.

Cottage Industries: There are about 600,000 handlooms in A.P. of which 527,000 are registered. The State has the highest number of handlooms compared to any other State in India. Together these produce annually about 320 m. metres which was increased to 420 m. metres in 1981-82. The Centre has fixed a target of 700 m. metres to be achieved by the end of VI Plan.

The handloom goods exported from the State are about 20% of the export from the country. The important goods exported are as follows: Bleeding Madras, Madras Kerchiefs, lungies, sarongas, silks (printed), *tusar* and *Kalamkari.*

Industrial Estates: As on June 1977, there were 51 industrial estates and 28 industrial development areas in the State. Besides 20 industrial estates and four industrial development areas are in the formative stage. They are situated in the following towns viz., Visakhapatnam, Rajahmundry, Vijayawada, Guntur, Nellore, Chittoor, Tirupathi, Nizamabad, Hyderabad and commercial complexes in Visakhapatnam, Nellore, Cuddapah, Warangal, Nizamabad and Hyderabad.

Labour: In 1981 the total no. of industrial disputes were 80; no. of workers involved 37,262; mandays lost: 13,07,208.

Employment (Sept. 1981): There are 6,946 Public and 5,628 Private Sector establishments in the State employing a total of 1,602,817 (1,226,571 being in the Public Sector).

No. of employment exchanges in the State (1981) 36; no. of unemployment 1.745 million (in Sept. '82).

EDUCATION

No. of schools and students respectively are (1981-82): Primary 40,656 (5.368 million 1980-81), Upper Primary 4,782 (0.882 million 1980-81), High schools 3,842 (0.892 million 1980-81). Colleges: (1981-82) Jr. colleges 468 (18.2 million), Degree colleges 387. No. of oriental colleges 53.

Universities (1980-81): (9)—A.P. Agricultural University, Rajendranagar, Hyderabad; Sri Jawaharlal Nehru Technological University, Hyderabad-500028; University of Hyderabad, Hyderabad-500001; Osmania University, Hyderabad-500007; Andhra University, Waltair-530004; Sri Venkateswara University, Tirupathi-517501; Kakatiya University, Warangal-506002; Nagarjuna University, Guntur-522004; Sri Krishnadevaraya University, Anantapur.

Open University which was inaugurated on Aug. 26, 1982 will start functioning at Hyderabad from 1983-84 academic year. Padmavathi Women's University, Tirupathi, was inaugurated on April 14, 1983 and will start functioning from 1983-84 academic year.

PUBLIC HEALTH (1981-82).

No. of Allopathy Hospitals: 295; Dispensaries: 1,101; PHCs: 421; Hospitals for special treatment: 45; No. of Ayurvedic Hospitals: 5; Dispensaries: 1,331; No. of Unani Hospitals: 2; Dispensaries: 133; No. of Homeopathy hospitals: 3; Dispensaries: 119.

Leprosy control: National leprosy control programme was started in 1955 in the State to control the spread of leprosy. The entire state is declared as endemic. Leprosy control units, S.E.T. centres, Urban Leprosy Centres, temporary hospitalisation wards and training centres have been established under this programme.

Medak leprosy control unit covers 448,000 people. It has 15 sub-units and 15 survey, education and treatment centres.

Family Welfare programme: The Family Welfare services are being provided in the State through 1,917 rural and urban family centres. The local bodies, voluntary organisations and private medical practitioners also have their clinics. The new technique of laparoscopic tubectomy operations were introduced in 1981-82. During 1980-81 the State achieved 243,579 sterilisations, ICUDs 17,589 and during 1981-82 (upto Sept., 1981) 110,837 sterilisations and 6,390-ICUDs.

COMMUNICATIONS

Vehicular position in 1981-82: buses: 10,156; goods vehicles: 36,605; cars and jeeps: 41,224; motor cycles and scooters: 1,70,040; autorickshaws: 8,601; tractors: 5,648.

Roads: National highways (1981-82): 2,357 kms; State Highways: 8,387 kms.; major district roads: 18,072 kms.; Z.P. and samithi roads: 74,930 kms.

GENERAL

Mines & Minerals: The name of mineral, estimated reserve (million tonnes) and location districts are as follows:

Coal: 3,908; Khammam, Adilabad, Karimnagar, Warangal and West Godavari. *Limestone:* 2,018; Adilabad, Hyderabad, Mahabubnagar, Kurnool, Cuddapah, Guntur, Nalgonda and Krishna. *Iron ore:* 390; Anantapur, Karimnagar, Adilabad, Chittoor, Khammam, Prakasam, Krishna, Kurnool and Cuddapah. *Bauxite:* 30; Visakhapatnam. *Lead: 6;* Guntur. *Copper:* 7; Guntur and Khammam. *Clay: 2;* East Godavari and Cuddapah. *Manganese:* 1.81; Srikakulam, Prakasam and Adilabad. *Barytes: 6;* Cuddapah, Anantapur and Kurnool.

Press (Dailies 1982): Principal dailies are as noted below:

English: Deccan Chronicle-Hyderabad: Indian Express-Hyderabad, Vijayawada; Hindu-Hyderabad; *Telugu:* Andhra Prabha-Hyd. & Vijayawada; Andhra Patrika-Hyd. & Vijayawada; Andhra Jyothi-Vijayawada; Visalandhra-Vijayawada; Andhra Bhoomi-Hyderabad; Eenadu-Hyderabad, Vijayawada, Visakhapatnam and Triupathi *Urdu:* Siasat-Hyderabad; Rahnuma-e-Deccan-Hyderabad; Milap-Hyderabad; *Hindi:* Milap-Hyderabad.

Annual Plan outlay (1983-84): Rs. 8,260 million.

Rivers: The Godavari, the Krishna, the Pennar, the Nagavali and the Vamsadhara, the Langulya, the Musi, the Tungabhadra, the Chitravati and the Papagni.

ARUNACHAL PRADESH

(Union Territory)

Arunachal Pradesh, the "Land of Sunrise", was formerly called the North-East Frontier Agency (NEFA). It is a vital boundary State situated as it is in the north-east of India, bordered by Bhutan on the west, Tibet and China on the north, Burma on the east and Assam on the south. It was declared a Union Territory on January 20, 1972 comprising of nine districts and is administered by a Lt. Governor.

CAPITAL: Itanagar (since April 20, 1974)—a newly built township was inaugurated by former Pres. V.V. Giri: **Area of Territory:** 83,578 sq. kms. **Population** (1981 census): 631,839: **Sex Ratio:** 870 females per 1,000 males; **Density:** 7 per sq. km: **Literacy:** 20.09 per cent.

Districts	Headquarters	Population (1981 Census)
West Kameng	Bomdila	63,302
East Kameng	Seppa	42,736
Upper Subansiri	Daporijo	39,410
Lower Subansiri	Ziro	112,650
West Siang	Along	74,164
East Siang	Pasighat	70,451
Lohit	Tezu	69,498
Dibang Valley	Anini	30,978
Tirap	Khonsa	128,650

Towns and Population (1981 Census): Pasighat: 9,139; Along: 8,074; Tezu: 6,239; Bomdila: 3,860.

No. of Villages: 2,973.

Boundaries: The territory is bound by Bhutan in the west, Tibet in the north-west, China in the north and north-east, Assam in the east and south, Burma in the east and south-east and Nagaland in the south-west.

Languages: Tribal dialects.

AGRICULTURE

Nearly 46 per cent of the population of Arunachal Pradesh is engaged in agriculture. Irrigated area forms 17 per cent of the total cultivated area of about 14,000 hectares. The traditional method of agriculture is "jumming", a kind of shifting cultivation. The forests are cleared and crops are raised for one to three years, depending on the fertility of the soil. Thereafter the cultivators move on elsewhere. However, sedentary cultivation is followed in the valleys and terraces, the methods being called Wet Rice Cultivation and Terrace

Rice Cultivation respectively. The main crops are rice, maize, millets, wheat and mustard. Forests cover 61,000 sq. km. of the area.

Forests: Area under forests is estimated at 60,000 sq. kms. while 45,116 sq. kms. had been brought under reserved forest.

Wild life: The Territory has rich fauna and flora. There are wild elephants, bisons, buffaloes, tigers, leopards and various kinds of deer, bears, pigs, snakes, and wild goats. Peculiar to the Territory are the following—musk deer, panda, clouded leopard and mountain goat.

INDUSTRIES

There are no major industries in the Territory. Three medium and 34 small scale industries are functioning under private co-operative sectors. A cement factory is coming up at Tezu. Industrial Estates have since been established with small scale industrial units. Training and incentives are offered by the Government to interested entrepreneurs.

Oil has been struck in some parts and a small refinery is proposed to be established soon at Kharsang in Tirap district.

Sericulture: Schemes have been formulated to expand *Eri* and mulberry silk rearing and introduction of *muga* silk (For details see Chapter on Silk Industry).

Training & Production Centres: There are 21 training and 24 production centres which impart training in weaving, carpentry, blacksmithy, silversmithy, wood-carving, bell-metal work, carpet weaving, cane and bamboo work, tailoring, knitting, painting etc., besides producing articles on a mass scale. An Industrial Training Institute at Roing gives training in technical trades.

EDUCATION

The Territory is showing good progress in education and between 1975 and 1981 the number of primary schools increased from 184 to 875. There are now 2 degree colleges, 120 middle schools, 34 secondary schools, 13 higher secondary schools, 1 central school with above 80,000 on the rolls.

PUBLIC HEALTH

During the last decade development activities under the Health Programme made rapid strides and over the years the number of hospitals increased from 95 to 120. The bed strength today is 1,270 comprising 816 general beds, 122 T.B. beds and 272 leprosy beds. In 1975 there were 217 doctors, 131 nurses and 148 pharmacists.

GENERAL

The North-Eastern Areas (Reorganisation) Act of 1971 passed by the Parliament on December 21, 1971 changed the status and name of **NEFA.** It became Arunachal Pradesh with the status of a Union Territory. It was formally inaugurated on January 20, 1972.

The election commission has determined that the Union Territory would have 30 legislative constituencies and two parliamentary constituencies.

Communications: Roads 36,780.41 kms. (both surfaced and unsurfaced), porter tracks, bridle paths etc. 5,000 kms. Work on the first railway line (12 kms.) from Balipara to Bhalukpung is in progress.

Rivers: The Brahmaputra (locally known as the Saing in hill sector and the Dibang when it reaches the plains), the Lohit and the Subansiri.

Rainfall: The monsoon sets in from May-June and continues till the end of September. The average annual rainfall at Bomdila is 1,019 mms., Pasighat—5,792 mms., Tezu—4,071 mms. and Changlang—1,988 mms. The snow line starts from about 3,962 metres altitude and the whole of the northern region along the international boundary is under snow during the winter months.

Annual Plan: Approved outlay for the year 1982-83 is Rs. 440 million.

Tribes: About 50 distinct languages and dialects are spoken. Each tribe is divided into a number of exogenous clans. As a general rule, the tribes do not intermarry. A broad list of the main tribes districtwise is given below:

West Kameng: Monpa, Sherdukpen, Aka, Khowa, Miji; *East Kameng:* Bangni, Sulung; *Lower Subansiri:* Nishi, Apatani, Sulung; *Upper Subansiri:* Tagin, Hill Miri, Adi; *West Siang:* Adi (sub-tribes being Galong, Minyong, Bori, Bokar, Ramo, Pailibo): *East Siang:* Adi (sub-tribes being Padam, Minyong, Pasi, Panggi, Milang, Simong, Komkar, Karko), Idu Mishmi; *Dibang Valley:* Idu Mishmi, Adi; *Lohit:* Miju Mishmi, Digaru Mishmi, Khampti, Singphow; *Tirap:* Nocte, Wancho, Tangsa, Signphow.

ASSAM

Assam, whose ancient name was Kamarupa, comprised in its earlier history the areas which now form parts of Bengal and Bangladesh. With the treaty of Yandabo in 1826, the Burmese quit Assam leaving the British in control of the territory. It became a British Protectorate in 1826 and in 1835 the Jaintia Hills came under the jurisdiction of the East Indian Company. In 1874 Assam was detached from Bengal and made a separate Chief Commissionership. In 1905 on the partition of Bengal, Assam was united to the eastern districts of Bengal, and in 1921 a governorship was created. The history of Gauhati can be traced back to Puranic times.

CAPITAL: Dispur. **Population of the Capital:** N.A.

Area of the State: 78,523 sq. kms.; **Population** (1981 census): 19,902,826; **Density:** 254 per sq. km.; **Sex Ratio:** 900 females per 1,000 males; **Literacy** (1971 census): 28.1 per cent (males 36.7 per cent; females 18.91 per cent).

Districts: There are at present sixteen districts in the State. Six new districts have been formed on July 1, 1983.

Major City: (Over 100,000 population—1971 census): Gauhati: 146,026. Other cities with their population: Dibrugarh: 80,348; Jorhat: 70,674; Tinsukia: 54,911; Silchar: 52,596; Nowgong: 56,537 and Tezpur: 39,870.

No. of Villages: Inhabited: 21,995: uninhabited: 1,106.

State Boundaries: The State is bound by Bhutan and Himalayan ranges in the north, Arunachal Pradesh in the north-east, Nagaland, Manipur and Burma in the east, Bangla Desh, Tripura and Meghalaya in the south and south-west and West Bengal in the west.

AGRICULTURE

The area under the food crops covers 72 per cent of the total cultivated area. The main cash crops are wheat, rice, jute, tea, cotton, oil seeds, sugarcane, potato and fruits.

At the beginning of Sixth Five-Year Plan the agricultural productivity was only 890 kg. per hectare. The current level of productivity is estimated at above 1,100 kg. per hectare.

During 1981-82, 0.12 million hectares have been brought under wheat cultivation as against 0.10 million hectares during 1980-81.

Land Ceiling: 50 bighas (7.5 hectares) per family. Bill on land ceiling was passed in Assam Leg. Assembly in 1975.

Forestry: The total area under Reserved Forest in Assam is 17,000 square kms. which is 21 per cent of the total geographical area of the State. The total Sixth Plan outlay for the Forest Sector is Rs. 252 million including Hill areas.

It is proposed to raise about 62,500 hectares of plantation during the Sixth Plan and to distribute 35 million seedlings.

Fisheries: The main sources of fish production are the rivers and their tributaries.

The production of fish in Assam is only about 300/400 kgs. per hectare in nature. Production has been substantially increased to 1500 kgs. per hectare by adopting Scientific methods.

IRRIGATION & POWER

Irrigation: The gross irrigation potential in Assam is estimated at about 2.7 million hectares out of which it is planned to irrigate 1.0 million hectares through major and medium irrigation schemes and 1.7 million hectares through minor irrigation including ground water schemes.

Upto the end of 1980-81 seven medium schemes have been completed in the State of which two schemes fall within the Hills Districts. These seven schemes have contributed a total potential of 0.12 million hectares created in the State during the same period at a total investment of around Rs. 1,360 million.

A Minor Irrigation Corporation has been set up recently to accelerate the lending programme to farmers for installation of tubewells.

Power: In the Power Sector, several new projects have been taken up in the Sixth Plan in order to raise the installed capacity to about 600 MW by the end of 1984-85. The Bongaigaon Thermal Project has been commissioned and the Lakhwa Thermal Project is likely to be commissioned soon.

Rural Electrification: Of the 22,000 villages in the State, only 7,000 villages were electrified by the end of 1982-83. During Sixth Plan (1980-85) the target has been fixed to electrify six thousand villages with an outlay of Rs. 578.6 million. During 1980-81, 1,400 villages were electrified.

INDUSTRIES

The tea industry plays a vital role in the economy of Assam. Tea cultivation in the State covers an area of more than 8 per cent. of the total net area sown. Most of the tea gardens are in the districts of Dibrugarh, Lakhimpur, Sibsagar, Darrang and Cachar. The Assam Tea Corporation Ltd. has under its control about 14 gardens covering an area of 6,902.51 hectares.

Petroleum and petroleum products are the other main industries. Assam produces about 50 per cent of the country's total petroleum output. The State has two oil refineries and the third, with a petro-chemical complex is under way. There is also a Public Sector fertilizer factory at Namrup.

Other Industries are sugar, jute, silk, paper, plywood manufacture, rice and oil milling. Important cottage industries are handloom, sericulture, manufacture of cane and bamboo articles, carpentry, smithy and manufacture of brass utensils. The pace of industrialisation in the State has been boosted up significantly with the setting up of five District Industries Centres (DIC). An export oriented handloom project has been started at Sualkuchi to exploit the export potentialities of Eri and Muga.

Industrial Development Agencies: Assam Industrial Development Corporation, Gauhati; Small Industries Service Institute (Government of India), Gauhati; Credit Guarantee Association, Gauhati; Assam Agro-industries Development Corporation, Gauhati; The Assam State Warehousing Corporation, Shillong.

EDUCATION

According to 1981 census, the literacy was 36.7 per cent—male 18.91 per cent, female 28.1 per cent.

In 1978-79 the State had 21,615 primary and junior basic schools, 3,656 middle and senior schools, 1,699 high and higher secondary schools, 137 general education colleges, 3 universities, 3 medical colleges, 3 engineering colleges, 1 agricultural college, 1 veterinary college, 1 ayurvedic college and 7 polytechnics.

The Govt. of Assam has declared education free in the State upto Class X standard since April, 1978. Introduction of the Science courses in schools and expansion of Teachers Training Facilities have been introduced.

Universities: Assam Agricultural University, Jorhat 785004; Gauhati University, Jalukbari, Gauhati 781014; Dibrugarh University, Dibrugarh.

PUBLIC HEALTH

During the year 1979-80, existing activities continued to function both in the rural and urban areas. The significant activities were: 146 Primary Health Centres, five 30-bed rural Hospitals, 432 Subsidiary Health Centres, 778 Sub-Centres and 6 Ayurvedic subsidised dispensaries in rural areas and hospitals in District and Subdivisional headquarters.

During 1980-81, besides continuation of activities mentioned in the earlier year it was proposed to establish one Primary Health Centre, one 30 bedded rural hospital and 150 Sub-Centres in rural areas. Construction of building for the 200 bedded hospitals at Dhubri and 100 bedded hospitals at Dhemaji and Haflong will be continued.

There are 10 T.B. Centres one each at District Headquarters. Besides there are 7 chest clinics and 2 T.B. hospitals in the State. The total number of T.B. beds are 554 in Government Hospitals and Dispensaries.

In order to give an impetus to the Family Planning Programme it has been proposed to increase the number of Family Welfare Planning Sub-Centres to 855 by 1984-85 in rural areas, and 25 in urban areas.

COMMUNICATIONS

Roads: Please see chapter on 'Roads'.

Inland Waterways: The length of internal waterways is more than 9,600 kms. of which 1,600 kms. is navigable by steamers and large country boats.

Airports: The important airports are Borjhar (Gauhati), Mohanbari (Dibrugarh), Salani (Tezpur), Rouriah (Jorhat), Lilabari (Lakhimpur) and Kumbirgram (Silchar).

PRESS

Leading dailies		Town	Language
The Assam Tribune	..	Gauhati	English
Assam Express	..	Gauhati	English
Dainik Asom	..	Gauhati	Assamese
Dainik Janmabhumi	..	Jorhat	Assamese
News Star	..	Gauhati	Assamese

GENERAL

Minerals: Assam is rich in mineral wealth like coal, limestone, refractory clay, dolomite and natural gas. Assam produces about 50 per cent of the country's total petroleum output and natural gas.

Assam contains important oil fields and produces 50 per cent of India's crude oil.

Rainfall: The normal rainfall in the plains is 2,380 mms. and that of the hills is 2,550 mms.

Rivers: The Brahmaputra and her tributaries: the Subansiri, the Bhareli, the Dhansiri, and the Manas.

Housing: The State Govt. has spent Rs. 800,000 on housing schemes for 1977-78.

The Sixth Plan: Outlay for the State is Rs. 11,150 million which will be distributed as follows: (Rs. million): Agriculture: 2,583; irrigation, flood control and power: 4,552; industry and mining: 4,747.5; transport and communication: 1,045; social and community services: 2,080; economic services: 90.

Annual Plan: (1982-83): An outlay of Rs. 2,380 million has been earmarked for the Annual Plan.

High Court: The Gauhati High Court serves Meghalaya, Assam, Manipur, Nagaland and Tripura.

Science Museum: The Assam Science Society is planning to set up a Science and Technology museum in Gauhati. Another project the society has taken up is the Institute of Advanced Study in Science and Technology.

BIHAR

Bihar, was known in ancient times as Magadha and was the home of the Mauryan emperors. The name "Bihar" is derived from "Vihara" which stands for a Buddhist monastery. It achieved world renown under the wise leadership of Asoka the Great and its famous capital, Pataliputra, came to be known the world over. Bihar is hemmed in between West Bengal, Orissa, M.P., U.P. and Nepal. The British wrested the territory from the Nawab of Bengal by the decisive battle at Buxar in Bihar (1764). In 1911 Bihar was separated from the Presidency of Bengal and in 1936, Bihar became a separate province. The two ethnic areas of Bihar and Chota Nagpur constitute the new State of Bihar.

CAPITAL: Patna. **Area:** 71.69 sq. kms. **Population** (1981 census): 773,720.

Area of the State: 173,876 sq. kms. **Population of the State** (1981 census): 69,823,154. **Density:** 402 per sq. km. **Sex Ratio:** 947 females per 1,000 males. **Literacy:** 26.01 per cent.

No. of Districts: 33; **No. of Sub-divisions:** 76; **No. of Towns:** 220; **No. of Development Blocks:** 587; **No. of Villages:** 77,967; **Police Stations:** 611; **Panchayats:** 10,852.

Districts	**Headquarters**	Area in '000 Sq. Km.	**Population (1981 Census)**
Aurangabad	Aurangabad	3.3	1,236,528
Begusarai	Begusarai	1.9	1,456,512
Bhagalpur	Bhagalpur	5.7	2,610,719
Bhojpur	Arrah	4.0	2,389,658
Darbhanga	Darbhanga	2.3	2,004,583
Dhanbad	Dhanbad	3.0	2,104,381
East Champaran	Motihari	3.9	2,427,749
West Champaran	Bettiah	5.2	1,967,579
Gaya	Gaya	6.5	3,138,316
Giridih	Giridih	6.9	1,730,478
Gopalganj	Gopalganj	2.0	1,361,555
Hazaribagh	Hazaribagh	11.1	2,195,735
Katihar	Katihar	4.0	1,427,197
Khagaria	Khagaria	—	—
Madhepura	Madhepura	—	—
Madhubani	Madhubani	3.5	2,324,074
Munger	Munger	7.9	3,314,806
Muzaffarpur	Muzaffarpur	3.2	2,353,283
Nalanda	Biharsherif	2.3	1,638,364
Nawadah	Nawadah	2.5	1,099,667
Palamau	Dultonganj	12.7	1,916,152
Patna	Patna	3.2	3,031,463
Purnea	Purnea	7.0	3,592,637
Ranchi	Ranchi	18.3	3,059,362
Rohtas	Sasaram	7.2	2,363,905
Saharsa	Saharsa	5.9	2,952,234
Samastipur	Samastipur	2.9	2,116,741
Santhal Parganas	Dumka	14.1	3,707,160
Saran	Chapra	2.7	2,074,267
Singhbhum	Chaibasa	13.4	2,859,260
Sitamarhi	Sitamarhi	2.6	1,929,827
Siwan	Siwan	2.2	1,778,050
Vaishali	Hajipur	2.0	1,661,512

Source: Director of Census Operations, Bihar, Census of India, 1981.

Administrative Divisions with Headquarters respectively are: 1. Patna (Patna); 2. Tirhut (Muzaffarpur); 3. Darbhanga (Darbhanga); 4. Kosi (Saharsa); 5. Bhagalpur (Bhagalpur); 6. North Chotanagpur (Hazaribagh); 7. South Chotanagpur (Ranchi); 8. Magadh (Gaya); and 9. Chapra (Chapra).

Major Cities (over 100,000 population—1981 census):

Name		Area (sq. kms.)	Population
Bhgalpur	..	30.17	221,276
Biharsharif	..	19.34	151,308
Darbhanga	..	19.18	175,879
Gaya	..	28.62	246,778
Jamshedpur	..	63.81	457,440
Monghyr	..	17.50	129,187
Muzaffarpur	..	18.57	189,765
Patna	..	71.69	773,720
Ranchi	..	48.61	487,485

State Boundaries: The State is bound by Mirzapur, Ghazipur, Ballia and Deoria districts of Uttar Pradesh in the north-west; Nepal in the north; Jalpaiguri, Malda, Birbhum and Purulia districts of West Bengal in the east; Mayurbhanj and Sundargarh districts of Orissa in the south and Surguja district of Madhya Pradesh in the south-west.

State Language: Hindi. Other prominent languages spoken in the State are Urdu and Bengali. The prominent dialects of the State are Bhojpuri, Maithili, Magadhi and Santhali.

AGRICULTURE

The main crops of the State are rice, wheat, barley, maize, jute, potato and sugarcane. Rice and wheat occupy an area of 8.40 million hectares out of the total net sown area of 11.28 million hectares in 1979.

(See chapter on 'Food & Agriculture' for details.)

Ceiling on Land: A ceiling of 6.0705 hectares to 18.211 hectares for a family of five and an additional allowance of one tenth to each additional member subject to a maximum of one and a half of the ceiling limit to each additional member. The Bihar Government acquired 96,315 hectares of surplus land and distributed over 57,060 hectares among 0.16 million families till March 1982. This includes 85,088 families of the scheduled castes and 16,816 families of the scheduled tribes.

Livestock (1977 census): Cattle: 31,757,460; buffaloes: 4,463,251; sheep: 1,149,724; goats: 9,924,840; horses and ponies: 110,788; donkeys: 30,717; mules: 483; camels: 312; pigs: 1,917,716; poultry: 14,075,955.

Fisheries: (See chapter on "Fisheries").

IRRIGATION & POWER PROJECTS

Major power projects are the Patratu thermal power station, Barauni thermal power station and Subernarekha hydro-electric power station under Bihar State Electricity Board and Bokaro and Chandrapura thermal power stations and Tilaiya, Maithon and Panchet hydel power stations under the Damodar Valley Corporation.

As per the cabinet decision (April 14, 1981) the State Govt. is going to set up a Hydel Corporation for the proper management of all the hydel projects in the State. The projects are: Sankh (65 MW), Karhar (120 MW), Gandak (45 MW), South Karo (42

MW), Karkatgarh (25 MW), Sone (16 MW) and North Karo (25 MW).

The State Govt. proposes to set up 6,000 *gobar* gas plants during 1981-82.

Electricity (1981-82): Installed capacity: 939.68 MW; electricity generated: 2,582.77 million units; no. of villages electrified: 21,268; no. of pumpsets energised: 159,732.

The revenue collected by the Electricity Board during 1981-82 was Rs. 1,621.5 million as against Rs. 963.9 million in 1980-81.

Irrigation: During 1981-82 additional irrigation potential of 0.1 million hectares has been created against the target of 0.105 million hectares.

Under Minor Irrigation Programme irrigation potential of 0.167 million hectares has been created.

INDUSTRIES

Steel plants 3, Cement plants 7, Oil refinery 1, Copper smelter 1, carbonisation plant 1. paper factories 2, uranium and copper complex 1, pottery 1, glass works 5, ceramic works 4, asbestos plant 1, coal washeries 11, locomotive factory 1, tobacco factory 1, jute mills 3, sugar mills 29, cold storages 144, fertiliser plants 2, modern bakery 1, explosive plant 1, electric equipment 1, agro-industry (tractor) 1, scooter factories 2, refractories 45, gun factory 1 and gun manufacturing units in the private sector 36.

As a result of the liberalised investment policy 12,383 small scale and village industries were registered during 1981-82. Under the Integrated Rural Development Programme, 8,994 entrepreneurs received loans totalling Rs. 0.111 million.

INDUSTRIAL DEVELOPMENT AGENCIES: (See chapter on State Govt. Undertakings.)

LABOUR

Employment in factories (1979): No. of registered factories: 34,188; no. of working factories: 27,380; no. of workers employed daily: men: 354,521; women: 8,526; adolescents: 533, children: 91.

Employment in Government: Central Government establishments: 580,340; quasi-government establishments: 493,000; local bodies: 172,000.

Employment Exchanges (1979): 44; registration: 80,099; no. of applicants on live register of employment exchanges: 1,500,000..

EDUCATION (1980-81)

The State Government provides free education for all children up to matriculation level. There are 50,980 primary schools with 6,697,182 pupils and 111,172 teachers. The number of pupils in the middle schools, in the age group of 11-14 is 1,329,157 and teachers 83,499. The number of high schools is 3,228, attending pupils 474,686 and teachers 86,415.

There are about 1,200 specialised schools and 49 engineering institutions having 14,222 students and 1,518 teachers. The Adult Literacy Programme has been started in the State since 1978. About 200,000 adults (age group 15-35) have been made literate. At present (1983) 137 projects of adult literacy are functioning in the State.

Universities: Bhagalpur University, Bhagalpur; Bihar University, Muzaffarpur; Kameshwar Singh Sanskrit University, Darbhanga; Magadh University, Bodh Gaya; Patna University, Patna 800005; Ranchi University, Ranchi 834001; Mithila University, Darbhanga 864004; and Rajendra Agricultural University, Pusa 848125, Dist. Samastipur. There are 264 science and arts and 243 other colleges. The total number of teachers and scholars is 10,940 and 244,244 respectively.

(See chapter on "Education" for more particulars.)

PUBLIC HEALTH

Government institutions (1978-79): No. of hospitals: 150; dispensaries 816; no. of beds: 19,474; no. of doctors in Government service 2,088; no. of nurses 3,115; no. of auxiliary midwives 2,200; no. of lady health visitors 587; no. of sanitary inspectors 610; no. of pharmacists and compounders 710; no. of non-allopathic medical practitioners 54,384 (homoeopathic 28,090; *vaids* 23,668; *hakims* 2,626); no. of medical colleges 10 (govt. 8, private 2). Annual intake of the medical colleges 670.

There are three Employees State Insurance Corporation hospitals, and 30 dispensaries in the State.

There is a leprosarium at Brambay near Ranchi with a provision of 150 beds and a leprosy hospital at Tetumani in Dhanbad dist. Two leper asylums one at Gaya and the other at Deoghar with bed capacity of 150 and 100 respectively, and a subsidy centre at Monghyr with 30 beds are also functioning. Santal Pahariya Seva Mandal manages and controls one leprosy centre at Fatehpur in Santal Parganas district and 13 other clinics.

COMMUNICATIONS

Motor vehicles (1978-79): motor cycles and scooters: 68,787; auto-rickshaws and tempo: 3,312; jeeps and cars: 38,181; taxicabs: 3,419; buses: 7,997; trucks: 25,488; tractors: 12,794; trailers: 6,276; other vehicles: 1,492; total: 169,529.

Roads (surfaced): 21,593 kms.; (unsurfaced): 72,439 kms.

Per Capita Income: At current prices Rs. 718.

PRESS (1977).

Leading dailies	Town	Language
Indian Nation	Patna	English
Aryavarta	do.	Hindi
Searchlight	do.	English
Pradeep	do.	Hindi

GENERAL

Minerals: Bihar has the largest mineral resources and mineral production in India. Almost the entire production of copper ore (98 per cent), kyanite (86 per cent) and apatite (90 per cent) in the country is from Chota Nagpur region. It accounts for 50 per cent of the bauxite, 34.5 per cent of fire-clay, 50 per cent of coal, 32.6 per cent of china clay (crude) and 16.0 per cent of iron in India.

There are 21 coalfields and the best metallurgical coal comes from Jharia coalfield with reserves of 3,017 million tonnes. All coalfields were nationalised by the Government of India in 1972.

A 153 metre thick coal seam, said to be the thickest coal seam in the world, has been discovered in Jhinguda Colliery of the Central Coal Fields Ltd.

The mica belt which has a large supply of high quality block mica is 145 kms. long and 25 kms. wide running from Nawadah in the west to Bhagalpur district in the east through Giridih, Hazaribagh and Monghyr districts.

The sole producer of copper is Singhbhum district. This belt extends for about 130 kms. from Duarpuram in the west to Bahragora in the east.

Bauxite and aluminium are located in Ranchi and Palamau districts. Apatite and kyanite are located in Singhbhum. Limestone deposits are found in Rohtas, Hazaribagh, Palamau, Ranchi and Singhbhum districts. Pyrite deposits are located in Anjhore in Rohtas district.

Chota Nagpur also contains rich deposits of atomic minerals such as chromite, manganese, asbestos, barytes, dolomite, feldspar, quartz, graphite, ochre, uranium, phosphorites, soap-stones etc.

Places of Interest: Remains of the Royal City of Pataliputra (Patna), the ancient International University of Nalanda (Nalanda), the Ashoka pillars at Vaishali, Areraj Lauriyanandangarh, the birth place of Lord Mahavira (Vaishali), the ancient temples at Bodhgaya (Lord Buddha temple), Deoghar (Lord Shiva), Parasnath and the Sikh Gurudwara in Patna city and the cyclopean walls of Rajgir.

Annual Plan: The outlay for the annual plan for 1982-83 is Rs. 6,600 million as against Rs. 5,600 million for 1981-82.

Important Rivers: The Ganga, the Gandak, the Kosi, the Kamla, the Sone, the Barakar, the Damodar, the Koel, the Baghmati and the Subarnarekha.

Wild Life: There are 85 tigers and over 200 bisons as also partridges, nakta, spotted bull, pin-headed ducks, swamp partridges, ortolans etc. in the State.

There are two national parks one in Hazaribagh and another in Palamau districts and 16 game sanctuaries.

CHANDIGARH

(Union Territory)

Chandigarh, named after the temple of Chandi, came into being following the partition of India in 1947 with the division of the Punjab. Lahore went to West Punjab and became part of Pakistan and India was left with East Punjab but without a capital. Jullundur served temporarily as the capital until the new modern capital of Chandigarh was designed and executed by Le Corbusier. But in 1964 the western part of East Punjab became the State of Haryana, while the eastern part formed the State of Punjab and the hilly regions came under the jurisdiction of Himachal Pradesh. The crucial crisis that confronted Chandigarh was tackled by making it a Union Territory.

AREA: 114.00 sq. kms. **Population:** 450,061 (1981). **Density:** 3,948 per sq. kms. **Sex Ratio:** 770 females per 1,000 males. **Literacy:** 64.68 per cent.

Area of Chandigarh City: 46.6 sq. kms.

Early in 1948 it was decided to build a new capital for the Punjab at a site about 388 kms. north of Delhi. This afforded an ideal opportunity to town planners and architects. A team of experts planned the city under the overall guidance and direction of Charles Edouard Jeannert, the French architect popularly known as 'le Corbusier' (meaning 'A man with a crow's eye').

The city was inaugurated as the capital of the Punjab by President Dr. Rajendra Prasad on October 7, 1953.

FORMATION

On November 1, 1966 the Punjab was divided into three units, Punjab, Haryana and Chandigarh. Punjab and Haryana are separate States, while Chandigarh remains a Union Territory. Following is the text of the official announcement of the Central Cabinet on June 9, 1966: "Chandigarh Capital Project, which does not form part of either of the two regions (Punjab and Haryana) shall be constituted into a Union Territory. The Central Government will also acquire powers to give directions to the Governments of the two States to regulate land use in the surrounding areas declared as 'controlled areas'. Chandigarh will continue to be the capital of both the States of Punjab and Haryana". On November 1, 1966 the Union Territory of Chandigarh came into being in accordance with the Constitution (18th Amendment) Act providing for the linguistic re-organisation of the Punjab.

Subsequent to this the Central Cabinet announced a decision on January 29, 1970 providing for the transfer of the capital project area of Chandigarh to the Punjab within the next five years. Pending the construction of a new capital by Haryana, Chandigarh will remain a Union Territory.

Administration: Union Territory of Chandigarh is administered by a Chief Commissioner who is vested with powers of the State Government in respect of laws in force in the Territory and with financial powers analogous to those exercised by the other administrators of Union Territories. It has one member in the Lok Sabha.

EDUCATION

Chandigarh has 9 Degree colleges, 1 engineering college, 1 architect college, 2 polytechnics, 45 high/higher secondary schools, 26 middle, 41 primary and 37 nursery schools. 54 pre-nursery sections are being added to various schools to accommodate all the children in the age group of 4-5 years.

Education is free upto 10th Class in the rural areas. In order to help the weaker sections, free textbooks, stationery, uniforms and scholarships to all the scheduled caste children studying from Class 1 to 8 are being provided.

INDUSTRIES

There has been a phenomenal growth in small-scale industrial units in the Union Territory. At present there are 1,534 small-scale industrial units. Besides this there are 14 large and medium scale units out of which two are in public sector. The annual production of industrial goods in Chandigarh is estimated to be Rs. 670 million and it provides employment to 18,000 workers.

HEALTH

There is one General Hospital having 370 beds, one 10-bed hospital at Manimajra, 25 allopathic dispensaries, 3 ayurvedic dispensaries, 2 homoeopathic dispensaries and two mobile units for rural areas and labour colonies. The number of beds in General Hospital is being raised to 500 beds and Manimajra hospital to 38 beds. During the 6th Five Year Plan it is proposed to add 500-bed hospital in the Northern sector and 5 new allopathic dispensaries including one in rural area.

TRANSPORT

Chandigarh Transport Undertaking operates fleet of 227 vehicles. 20 buses are to be added during the current financial year and 20 more during the next year.

RURAL DEVELOPMENT

All the 22 villages have been linked by metalled roads. Most of the village streets have been paved. Street lights are provided in all villages.

GENERAL

Annual Plan (1983-84): The Annual Plan 1983-84 has been fixed at Rs. 280.087 million.

Tourism Facilities: In order to provide more diversions to tourists the Sukhna Lake is being developed with the provision of camping sites, cafeteria, swimming pools, beer bar and other such attractions. Other places of sight-seeing interest are Rose Garden, museum, Rock Garden, National Gallery, Green Parks, Leisure Valley, etc.

Accommodation is at present available in the Union Territory State Guest House and Chandigarh Mount View Hotel.

DADRA AND NAGAR HAVELI

(Union Territory)

Dadra and Nagar Haveli are two small former Portuguese pockets near the west coast, which are surrounded by Gujarat and Maharashtra. They consist of 72 villages, largely inhabited by tribals, and were originally given to the Portuguese by the Marathas in 1779. The territory was liberated in 1954 and on August 11, 1961, the territory merged into the Indian Union.

HEAD QUARTERS: Silvassa. **Area of Territory:** 491 sq. kms. **Population of the Territory** (1981 census): 103,677 (52,514 males and 51,163 females). **Sex Ratio:** 974 females per 1,000 males. **Density:** 211 persons per sq. km. **Literacy:** 26.60 per cent. **District:** Dadra and Nagar Haveli. **Major city:** None. **No. of villages:** 72.

Boundaries: Dadra and Nagar Haveli is near the west coast surrounded by the States of Gujarat and Maharashtra. It consists of two pockets namely Dadra and Nagar Haveli and these two pockets are intercepted by the territory of Gujarat.

The Portuguese ruled this territory till its liberation in 1954. The integration of Dadra and Nagar Haveli with the Indian Union was effected on 11-8-1961.

State Language: As per 1971 Population Census, 83 per cent of the population speak Bhilli/Bhilodi language. 12 per cent speak Gujarati, 2.29 per cent speak Marathi, and 1.58 per cent speak Hindi.

AGRICULTURE

Agriculture is the principal occupation of the Adivasis who represent about 89 per cent of the total population. Paddy, ragi, pulses and fruit crops are major crops while wheat; vegetables, sugarcane are also cultivated. About 22,700 hectares of land are under cultivation. The Dept. of Agriculture had taken several schemes to explore the production potential of this area. Area under high yielding varieties had increased from 39 per cent to 48 per cent. A number of new commercial crop varieties were introduced. 96 per cent of the area is under dry land farming. Hence, dry farming technology is used to get top yield by tapping rain water.

SOIL CONSERVATION

The main work of soil conservation is bench terracing. Under the scheme, 50 per cent subsidy is given to the SC/ST farmers on the cost of soil conservation work. In case of landless agricultural SC/ST labourers for whom land is allotted by the Administration and is developed through the Soil Conservation Department the rate of subsidy is 75 per cent. Small and marginal farmers (other than SC/ST) are given a subsidy 25 per cent and 33⅓ per cent respectively on the cost of soil conservation work. The department has taken up the treatment of catchment area of Damanganga Project from December, 1979.

FORESTS

The Forest area constitutes about 41.32 per cent of the total geographical area of the Territory and contains valuable tree species like Teak, Khair, Shisham, Sadad, etc.

The Forest Dept. has taken up several schemes such as Economic Plantation, Social Forestry, Rehabilitation of Degraded Forests, etc. to generate employment and upliftment of adivasis. During 1982-83, 85 kms. of roadside plantation and 646 hectares of Teak and Khair plantations were raised under different plan schemes. About 0.75 million saplings were distributed to public under Farm Forestry programme free of cost. In all 2.7 million trees were planted. Survival rate is as high as 90 per cent, 0.41 million mandays employment were generated under forestry sector of the Union Territory.

ANIMAL HUSBANDRY, POULTRY AND DAIRYING

There is one Veterinary Hospital at Silvassa and eight Veterinary Aid-Centres which are functioning in this territory. Free treatment is given to the livestock of the territory by these centres. In addition to treatment, castration of scrub bulls. mass vaccination against various contagious diseases are being done regularly. One A.I. Centre is also functioning in this Territory. There is one Govt. Dairy Demonstration Farm with 34 buffaloes, one bull rearing farm and one piggery demonstration farm at Silvassa. In addition to these, there is a feed compounding unit for preparation of balanced cattle, poultry and pig feeds and one fodder demonstration farm is also functioning under this department.

There is one Govt. Poultry Demonstration farm at Silvassa where day old chicks of recognised breeds are reared for 3 to 4 months. 27 biogas plants have been set up during the year 1982-83. One mobile dispensary was started during the year 1982-83 for treatment at the doorstep of the farmer. The department had arranged for two surgical camps, one at Silvassa and another at Khanvel. 54 buffaloes, 5 pairs of piglets and 18 cows have been distributed under I.R.D. Programme.

MEDICAL & PUBLIC HEALTH

There is one district level hospital having 40 beds, ten more beds are being added to this hospital, the construction of which is being completed shortly. There are two Primary Health Centres, seven dispensaries and ten sub-centres. There is also one mobile dispensary which tours regularly in the interior villages to render medical treatment. The entire territory is covered under Multipurpose Health Workers Scheme and Health Guide Scheme. All the National Health Programmes like family welfare, NMEP etc. are being implemented in the Territory.

IRRIGATION

There is no major or medium irrigation scheme. However, the Union Territory is participating with the Govt. of Gujarat & Goa, Daman & Diu in Damanganga Reservoir Project. Minor irrigation activities include construction of 24 lift irrigation schemes, 15 check-dams, 3 tube-wells and 12 open wells. Total area under irrigation is 597 hectares.

POWER

There is no generation of electricity in this territory. The power is purchased from Gujarat Electricity Board through their Vapi Sub-station to Silvassa Sub-station on 66 KV line and on 11 KV line at Dadra. Out of 72 villages, 58 villages are electrified. The work of 7 villages are under progress.

There are 98 industrial. 94 commercial, 10 H.T., 237 agricultural consumers and 64 pumpsets and 3,589 lighting domestic connections.

The present Contract Demand of power with Gujarat Electricity Board is 2,600 KVA and is likely to increase upto 5,000 KVA by the end of 1982-83 due to the proposed industrial units to be established at Industrial Estate, Khadoli.

EDUCATION

There are 141 Govt. primary schools, 12 Govt.-aided and one unaided mission primary schools. The total strength of the primary schools is 15,804 (9,683 boys and 6,121 girls). The administration is also running 11 pre-primary schools where 427 children are enrolled.

There are 2 higher secondary schools, one each at Silvassa and Naroli. There are four high schools one each at Dadra, Khanvel, Rakholi and Randha with total strength of 1,615 students. There is no college imparting higher education. The administration provides free education upto higher secondary level and free mid-day meals are provided at pre-primary and primary schools. There are 8 public libraries. An Industrial Training Institute trains wiremen, welders, fitters and electricians.

COMMUNICATION

There is no state highway passing through this Territory. Nearest railway stations are Bhilad and Vapi on Western Railway, which are 15 to 17 kms. from Silvassa.

The length of surfaced roads at the end of March, 1981 was 183.53 kms. and unsurfaced village roads, 34 kms.

INDUSTRIES

There is no major industry. Two Industrial Estates, one at Silvassa on the co-operative basis and the other Govt. Industrial Estate at Masat have been established. A new Industrial Estate at Khadoli is coming up. There are 148 industrial units including 22 village industries. The total annual production exceeds Rs.400 million. The products manufactured include spectacle frames and parts, flooring tiles, buckets, bread & biscuits, wood cutting and furniture, katha and tenin, spun pipes, plastic moulded articles, chemicals, detergent, art silk fabrics, electrical fixtures, wrist watches, art silk products, wax candles, tin containers, chappals, rexine cloth, printing and processing of art silk and cotton fabrics, foam (Polyurethane) etc. These industries provide employment to 3,500 people.

DELHI

(Union Territory)

Delhi has ancient historic links dating back to the 11th century A.D., the founder being a Rajput chieftain who belonged to the Tomara clan. In 1857, after the mutiny of the Indian troops, the British annexed Delhi and in 1912 Delhi replaced Calcutta as the capital of British India. A new city—New Delhi—with imposing buildings came up in marked contrast with old Delhi. It became a Union Territory on November 1, 1956, with a metropolitan council consisting of 61 members, five of whom are nominated by the President of India. The Lt.-Governor is the Administrator. Three towns and 258 villages constitute the Union territory. It has seven members in the Lok Sabha and three members in the Rajya Sabha.

AREA: 1,485 sq. kms.; **Population** (1981 census): 6,196,414; Density: 4,178 per sq. km.; **Sex Ratio:** 810 females per 1,000 males; **Literacy:** 61.06 per cent.

Administration: The Lt. Governor is the Administrator.

Boundaries: Delhi is surrounded by Uttar Pradesh in the east, and by Haryana in the south, west and the north.

AGRICULTURE

The Delhi Landholders (Ceiling) Bill passed in August, 1960, fixed the ceiling on land holdings at 12.15 hectares for a family of five. Leases in future have been prohibited except by small owners holding less than 3.24 hectares and persons suffering from a disability. Future tenants will have a minimum term of five years.

The total cropped area (1980-81) was 87,599 hectares and the total crop production was 147,000 tonnes.

Livestock: In 1977, the territory had a livestock population of 285,731 and poultry population of 216,911.

Milk supply (1980): Delhi Milk Scheme distributed (daily average) 268 kilo-litres of milk through its 1,058 milk depots. Mother Dairy distributed (daily average) 390 kilo-litres through 293 milk depots.

INDUSTRIES (1980-81)

There were about 45,000 industrial units functioning in Delhi. These units produced goods worth Rs. 21,960 million.

The main industries of Delhi are electronics, electrical appliances and accessories, lathe machines and drilling machines, small tools, cycle and cycle parts, paints and varnishes, rubber goods, plastic goods, auto-parts and batteries, precision instruments, cotton mills, hand and powerloom weaving, imitation jewellery, copper and brass utensils, sports goods, pottery and hosiery.

LABOUR (1980)

No. of workers unions in Delhi was 1,058. There were 37 industrial disputes which involved 8,439 workers resulting in the loss of 59,737 mandays. Average daily employment in all working factories which numbered 3,258 was 152,000 (all figures are provisional). The number of employment exchanges in the Territory was 16 with a registration of 183,000 job seekers and out of the 77,000 vacancies notified, 66,000 applicants were placed.

The number of registration on the live-register of the Regional Employment Exchange at the end of 1980 was 307,000.

EDUCATION (1979-80)

The number of higher secondary institutions during the year was 678.

The number of educational institutions, primary, middle and higher secondary was 2,680 and the total enrolment was 1,224,106.

Number of arts and science colleges in Delhi stood at 62. There were 15 colleges of engineering and technology during the year.

Universities: *University of Delhi*, Old Viceregal Lodge, Delhi 110007—is a teaching and affiliating university. The medium of instruction is English.

Jawaharlal Nehru University, New Meharauli Rd., New Delhi 110057—has jurisdiction over the whole of India. It is a teaching and research university.

PUBLIC HEALTH (1980)

There are 63 hospitals, 110 clinics, 469 dispensaries and 8 primary health centres. The total bed strength is 14,128. Birth rate, death rate and infant mortality during 1980 were 27.2, 6.6 and 49.9 respectively (per thousand).

COMMUNICATIONS

During the year 1980-81 the number of vehicles plying on the roads of Delhi was: Motor cycles and scooters — 334,389; auto-rickshaws — 19,947; cars & jeeps — 117,213; taxis — 6,255; commercial vehicles (goods) — 35,741; buses — 7,912.

The Delhi Transport Corporation had 2,754 buses and had also 510 private buses under its operation as on March 1981, which carried 1,026.3 million passengers over 213.07 million kms. during the year.

PRESS: The major dailies in Delhi are as follows:

English: Hindustan Times; Hindustan Times Evening News; Indian Express; Morning Echo; National Herald (Lucknow & New Delhi); Patriot; Statesman (Calcutta & New Delhi); Times of India.

Hindi: Hindustan; Nav Bharat Times; Vir Arjun.

Urdu: Milap; Pratap.

ANNUAL PLAN

The Planning Commission has recommended an outlay of Rs. 2,500 million for the Annual Plan for 1983-84 for the Territory against the expenditure of Rs. 2,000 million in 1982-83.

Delhi Development Authority, Vikas Bhavan, Indraprastha Estate, New Delhi 110001—is responsible for planning and implementing the 20-year Delhi Master Plan. Over 8,723 hectares have been developed by the DDA for setting up new residential, industrial and commercial enclaves. Over 43,785 houses, flats had been constructed and allotted by August 1980. About 71 million people have been resettled in 27 well laid out colonies.

GOA, DAMAN AND DIU

(Union Territory)

Picturesque Goa, which has a distinct Latin flavour about it, has an unique culture, a blend of the east and the west. The Portuguese held sway since 1510, till it was liberated on December 19, 1961. Under the Constitution (Twelfth amendment) Act of 1962, Goa, Daman and Diu became Union territory. In January 1967, an opinion poll was held to ascertain whether Goa, Daman and Diu wanted to remain as Union territory or merge with neighbouring Maharashtra or Gujarat. Goa decisively voted to remain as Union territory.

CAPITAL: Panaji; **Urban Agglomeration Area:** 37.00 sq. kms.; **Population:** 77,226 (1981 census).

Area of Territory: 3,814 sq. kms.; **Population of Territory** (1981 census): 1,086,730; **Density:** 285 per sq. km.; **Sex ratio:** 981 females per 1,000 males; **Literacy:** 57 per cent.

Districts: Goa, Daman and Diu with Panaji as headquarters. *Goa:* Area: 3,701 sq. kms.; population: 1,007,749. *Daman:* Area: 72 sq. kms.; population: 48,560. *Diu:* Area: 40 sq. kms.; population: 30,421.

Important Towns with their population: Panaji urban agglomeration 77,226; Margao urban agglomeration 64,858; Mormugao 69,684; Mapusa 25,998. **Other Towns:** Ponda, Pernem, Chauri, Quepem, Bicholim, Sanguem, Valpoi, Daman and Diu. **No. of Villages:** 433 revenue villages or 424 census villages (excluding 9 uninhabited villages as per 1981 census). **Village Panchayats:** 194.

State Boundaries: Goa is bound in the north by the Terekhol river which separates it from Maharashtra, in the east and south by Karnataka and in the west by the Arabian Sea.

Daman is bound in the north by the Bhagwan river, in the east by Gujarat State, in the south by the Kalam river and in the west by the Arabian Sea.

Diu, a tiny island in the Gulf of Cambay near Veraval Port, is separated from the southern extremity of the Saurashtra peninsula by a narrow channel running through a swamp.

Language: The predominant language of Goa district is Konkani and Daman & Diu is Gujarati.

AGRICULTURE

Net area sown in Goa, Daman & Diu is 128,429, 4,353 and 793 hectares respectively. The food crops commonly grown include paddy, nachini (ragi) and pulses. Vegetables of all types are grown as rainfed crops in Kharif and as irrigated crops in Rabi season. The main commercial fruit crops grown in Goa are coconut, cashewnut, betelnut (arecanut) and mango. The other common fruits available in this territory are pineapple, jackfruit, breadfruit, various types of citrus, papaya and bananas.

During the year 1981-82, area covered under high-yielding variety of paddy was 32,763 hectares and achievement in paddy production was 136,921 metric tonnes *(kharif)* and 42,378 tonnes *(rabi)*. The area under wheat, pulse and ragi during 1981-82 was 58,000 hectares, 7,000 hectares and 6,405 hectares respectively, and sugarcane occupied 1,296 hectares. The fertiliser consumption of NPK was 4,022 tonnes in 1981-82. Under Horticulture Development 88,017 coconut seedlings, 384,972 cashew seedlings, 9,279 mango grafts, 14,389 banana suckers and 14,173 pineapple suckers and 21,350 of other fruit stock plants were supplied. Under plant protection an area of 13,560 hectares was covered.

Fisheries: During 1981 the estimated marine fish landing amounted to 28,426 tonnes.

The Territory has a coastline of about 140 kms. (divided into 3 separate units; Goa 105 kms., Daman 22 kms. and Diu 13 kms.) and small fresh water ponds numbering about 126. The coast is full of creeks and estuaries which provide a good shelter for fishing crafts.

Forest: The total forest area of the territory is 130,895 hectares out of which State forest area constitutes 105,295 hectares. The revenue earnings from forest for 1981-82 was Rs. 7.096 million. The per capita forest area comes to 0.15 hectare.

IRRIGATION AND POWER

Irrigation: Irrigation projects and area (hectares) expected to be irrigated on completion are: Salaulu: 14,500 (Sanguem-Quepem-Salute) and Anjuna: 1,468 (Sattari). A number of other minor irrigation schemes are under implementation.

Electricity: Power for distribution in the Territory is obtained from Karnataka and Maharashtra to Goa and from Gujarat to Daman and Diu. The aggregate maximum power demand during 1981-82 was 87 MW and the total power purchased was 293.3 MW.

In all 17 towns and 382 villages have been electrified as on 31st March, 1982.

INDUSTRIES

There are 31 projects in large and medium scale sectors with a capital investment of approximately Rs. 1,440 million, providing employment to over 6,737 persons. All the large and medium scale industries are located in rural areas.

Industrial Estates: (Names of Govt. Estates)—1. Corlim Industrial Estate, Corlim, Ilhas-Goa; 2. Margao Industrial Estate, St. Jose de Areal, Margao-Goa; 3. Sancoale Industrial Estate, Sancoale, Marmugao; 4. Daman Industrial Estate, Daman; 5. Mapusa Industrial Estate, Mapusa; 6. Tivim Indl. Estate, Tivim, Bardez; 7. Bicholim Indl. Estate, Bicholim; 8. Honda Industrial Estate, Honda, Sattari; 9. Cacora Industrial Estate, Cacora.

Small-Scale Industries Sector includes industries such as capacitors, zip fasteners, fishing nets, wick stoves, paints, cutting tools, castings, carbon papers, stern gear and propellers, spectacle frames, drugs and pharmaceuticals, rubber tyres, plastic articles, cashew nuts, assembly of wrist watches, coconut shell powder, industrial furnaces etc.

Industrial Development Agencies: Directorate of Industries and Mines, Govt. of Goa, Daman & Diu, Udyog Bhavan, Panaji 403001; Small Industries Service Institute, Audhi Mapari Bldg., Margao 403601; Maharashtra Small Scale Industries Development Corpn., Margao 403601; Maharashtra State Financial Corpn., Panaji 403001 (with branches at Margao and Daman); Goa, Daman and Diu Industrial Development Corpn., Panaji 403001; and Economic Development Corpn. of Goa, Daman and Diu, Panaji 403001.

Labour (1981): No. of trade unions: 95; membership: 37,565; strikes 23; mandays lost: 278,785.

Exports: The export earning during 1979-80 was Rs. 49.6 million. Main export items are: pesticides, pellets from pelletisation plant, cotton yarn, sugar, rubber tyres, canned and frozen fish, canned fruits, processed cashew nuts, industrial furnaces, flooring tiles, wick-stoves, silk fibres, plastic goods, liquor etc

EDUCATION (1981-82)

Schools	No. of schools	No. of pupils	Boys	Girls
Primary	1,233	133,623	71,673	61,950
Middle	395	71,250	39,743	31,507
Secondary	256	48,102	27,185	20,917
Higher Secondary	20	7,702	4,350	3,352

No. of Colleges	No. of Students	Boys	Girls
Arts, Science & Commerce	4,804	2,598	2,256
Professional	1,716	1,211	505
Below Degree	1,159	644	555

University	No. of students	Men	Women
Post Graduates Centre, Panaji	450	276	174

Education is free upto S.S.C. in all Government and aided schools.

An independent territorial Secondary School Certificate Board has been set up since August 15, 1975.

PUBLIC HEALTH (As on 1.1.1982)

No. of Hospitals: Private including nursing homes: 94; Government: 32; No. of beds: 2,387; Private: 62; No. of beds 991. No. of doctors: 979; No. of nurses: N.A.; No. of non-allopathic medical practitioners: 46 (provisional); No. of medical college: 1; amount spent on medicines (1980-81): Rs. 4.02 million.

COMMUNICATIONS (As on 31.3.1980)

The total number of motor vehicles registered in Goa, Daman and Diu is 44,584; Buses: 1,230; Goods vehicles: 7,988; Taxis: 999; Tractors: 227; Private cars and jeeps: 7,531; Motor cycles and scooters: 18,293; Auto rickshaws: 446; Govt. vehicles: 940.

Length of motorable roads: Goa 2,539.50 kms., Daman 81.64 kms., Diu 21.182 kms. The Zuari Bridge on N.H. 4 is thrown open for traffic. Work of Colvale Bridge is nearing completion. The total length of the national highways nos. 4A, 17 and 17A, which pass through this territory, is 223.95 kms. There is a direct train service between Vasco-da-Gama, Pune and Bombay with a change at Miraj. Goa is also connected with luxury and semi-luxury buses with neighbouring States. Coastal steamer services operate between Bombay and Panaji. Mormugao is one of the major harbours on the west coast of India. It permits ocean-going vessels of various sizes. Cargo ships mainly from Japan, America and Europe call at the port. Goa is criss-crossed by as many as half a dozen rivers and rivulets, and internal waterways are being developed fully for transport of men and goods.

Post and Telegraph Facilities: At present there are 219 post offices, 68 combined offices and two departmental telegraph offices. There are 27 telephone exchanges with equipped capacity of 7,220 lines. The number of public call offices is 70 and it has three telex exchanges. There are also 4 microwave stations.

Ferries: Over Mandovi: Panaji-Betim-Verem; Panaji-Britona; Panaji-Piedade-Naroa; Ribandar-Chorao; Old Goa-Piedade; Aldona-Coruem; Pomburpa-Chorao; and Sarmanas-Tonea.

Aldona-Corjuem; Pomburpa-Chorao; Sarmanas-Tonca; Calvim-Pantim; and Amona-Khandola.

Over Zuari: Dona Paula-Marmagoa and Marcaim-Cortalim.

Over Chapora: Siolim-Chopdem and Colvale-Macazana.

Over Daman Ganga: Motti Daman-Nani Daman.

HOUSING

The Goa, Daman and Diu Housing Board was constituted on March 20, 1969. During the Five-Year Plan Rs. 22.5 million has been earmarked for housing schemes entrusted to the housing board as follows: subsidised industrial housing Rs. 0.45 million; low income group Rs. 3.6 million; middle income group Rs. 6.3 million; land acquisition and development Rs. 11.5 million; slum clearance scheme Rs. 0.65 million.

PRESS

Leading Dailies:

Name	Town	Language
Navhind Times	Panaji	English
Navprabha	Panaji	Marathi
Gomantak	Panaji	Marathi
Rashtramat	Margao	Marathi
O Heraldo	Panaji	Portuguese, English
Novem Goem	Margao	Roman Konkani

GENERAL

Annual Plan: The outlay for 1982-83 was Rs. 441.1 million which was allocated under major heads as follows: Agriculture and allied services: Rs. 53.7 million; Co-operation: Rs. 12.4 million; Water and power development: Rs. 140.9 million; Industry and mines: Rs. 16.0 million; Transport and Communications: Rs. 62.8 million; Social and Community services: Rs. 153.3 million; Economic services: Rs. 1.6 million and general services: Rs. 0.4 million.

Rivers: The Tirakol, the Chapora, the Naroa, the Mandovi, the Kandepar, the Sinquerim, the Mapusa, the Cotorem, the Bicholim, the Sanquelim, the Zuari, the Paroda, the Sal, the Talpona and th Galgibaga.

Historic Dates: Occupation of Goa by Alfonso de Albuquerque: November 25, 1510; Occupation of Diu by Portuguese: 1535; Occupation of Daman by Portuguese: 1559; Establishment of Inquisition in Goa: 1560; Naval Treaty between Shivaji, founder of the Maratha Empire, and the Portuguese: December 11, 1667; Maratha war with Portuguese for conquest of Bassein: 1737-1739; Proclamation of the Portuguese Republic: October 5, 1910; Civil Disobedience Movement for Goa's Liberation: June 18, 1946; Liberation of Dadra: July 22, 1954; Liberation of Nagar Haveli: August 2, 1954; Judgement of the Hague Court regarding the case concerning the right of passage over Indian territory (Portugal vs India): April 12, 1960; Liberation of Goa, Daman & Diu and appointment of Military Governor: December 19, 1961; Installation of Civil administration: June 8, 1962; First democratic elections: December 9, 1963; Installation of the first popular Ministry: December 20, 1963.

GUJARAT

Gujarat, on the western seaboard of India, is the seventh biggest State in area and the tenth in population. To its north-west is Pakistan. It faces Rajasthan in the north, MP in the east and Maharashtra in the south and south-east. Gujarat was once part of the Great Mauryan and Gupta empires. Being formerly under Muslim and Hindu rulers it has evolved a synthesis of Hindu and Muslim cultures. Under the Bombay Reorganisation Act of 1960, Gujarat State was formed on May 1, 1960. It comprised the predominantly Gujarati-speaking areas in the north and west of Old Bombay State, the remaining areas being renamed Maharashtra State. The following districts of the former Bombay State constitute Gujarat State: Banaskantha, Mehsana, Sabarkantha, Ahmedabad, Kaira, Panchmahals, Vadodara, Bharuch, Surat, Dangs. Amreli, Surendranagar, Rajkot, Jamnagar, Junagadh, Bhavnagar, Kutch, Gandhinagar and Valsad.

CAPITAL: Gandhinagar; **Area:** 649 sq. kms.

Area of the State: 196,024 sq. kms.; **Population** (1981 census): 33,960,905; **Density:** 174 per sq. km.; **Sex Ratio:** 942 females per 1,000 males; **Literacy:** 43.75 per cent.

Districts	Headquarters	Area (Sq. Kms.)	Population (1981 census)
Ahmedabad	Ahmedabad	8,707	3,875,794
Vadodara	Vadodara	7,794	2,558,092
Banaskantha	Palanpur	12,703	1,667,914
Bharuch	Bharuch	9,038	1,296,451
Mehsana	Mehsana	9,027	2,548,787
Panchmahals	Godhra	8,866	2,321,689
Surat	Surat	7,657	2,493,211
Dangs	Ahwa	1,764	113,664
Sabarkantha	Himatnagar	7,390	1,502,284
Jamnagar	Jamnagar	14,125	1,393,096
Bhavnagar	Bhavnagar	11,155	1,879,340
Amreli	Amreli	6,760	1,079,097
Junagadh.	Junagadh	10,607	210,079
Kutch	Bhuj	45,652	1,050,161
Rajkot	Rajkot	11,203	2,093,094
Surendranagar	Surendranagar	10,489	1,034,185
Gandhinagar	Gandhinagar	649	289,088
Kheda	Kheda	7,194	3,015,027
Valsad	Valsad	5,244	1,774,136

Major Cities: With population over 100,000 and area (municipal) in sq.kms. (1981 census): Ahmedabad (urban agglomeration): 2,515,000; 92.98; Surat: 776,583; 55.68; Vadodara: 734,473; 108.26; Rajkot: 445,076; 69; Bhavnagar: 307,121; 90.16; Jamnagar: 277,615; 25.90; Nadiad: 142,689; 28.49.

No. of Villages: 18,114; **Uninhabited:** 436; **No. of Talukas:** 184; **No. of Towns:** 255; **No. of Municipal Corpns.:** 4; **District Panchayats:** 19; **Taluk Panchayats:** 183; **Nagar Panchayats:** 92; **Gram Panchayats:** 859.

State Boundaries: The State is bound by Jalor, Sirohi, Udaipur, Dungarpur and Banswara districts of Rajasthan in the north and north-east; Jhabua district of Madhya Pradesh, Dhule and Nasik districts of Maharashtra in the south; and Arabian Sea and Pakistan in the north-west.

State Languages: Gujarati is the language of administration, law courts and university, and Hindi for communication with the Union Government.

AGRICULTURE

The main food crops in Gujarat are bajra, jowar, rice and wheat. Cotton, tobacco and groundnut are the major commercial crops. fifteen per cent. of the total cultivated area and seventeen per cent of the total sown area are irrigated.

During 1980-81 production of foodgrain was 4.48 million tonnes.

Forests: 19,535 sq. kms. (Provisional as on 31.3.1980). The forest area in the State is barely 10 per cent of which a large portion is barren and divided. The State Govt. had prepared an ambitious programme for the extension of forestry during the Fifth Plan. An amount of Rs. 90 million had been proposed in the Plan against Rs. 35.5 million in the Fourth Plan

Fisheries: Gujarat has a long coastline. The production of fish during 1979-80 was 223,000 tonnes. The total number of fishermen's co-operatives in the State was 168 during 1979-80. Fish production was expected to increase to 280,000 tonnes by the end of the Fifth Plan.

IRRIGATION AND POWER (1982-83)

Irrigation (1979-80): Total net area under irrigation: 1.93 million hectares. Out of this 0.38 million hectares were under canal irrigation, 0.23 million hectares were under tubewells, 1.32 million hectares under wells and the rest were under tanks and other sources. The major irrigation projects in the State are Ukai, Kadana, Kakrapara, Mahi right bank canal project stage-I, Shetrunji, Dantiwada, Hathmati, Meshwa and Bhadar. Besides there are two reservoirs one on the river Sabarmati at Dharoi and the Panam near Kel-dezar. Works on Damanganga, Karjan, Sukhi, Watrak are in progress.

Power: The total installed capacity, both hydel and thermal is 2,350 mw. In all, 11,879 villages have been electrified.

INDUSTRIES (as on December 31, 1981)

The major industries of the State are: Textile including ginning and pressing of cotton, general and electrical engineering, vegetable oils, chemicals (including salt), soda ash and cement.

Particulars regarding number of working factories and average number of workers employed therein daily respectively under each category are as follows:-

Textiles: 1,306; 252,901; food products: 1,111; 58,763; transport equipment and parts: 109; 9,123; basic metal and alloys industries: 633; 20,036; tobacco and tobacco products: 283; 10,813; metal products and parts except machinery and transport equipment: 999; 27,411; non-metallic mineral products: 1,157; 45,585; machinery and machine tools and parts except electrical machinery: 1,189; 45,112; chemical and chemical products: 1,191; 61,458.

Major Public Sector Undertakings: Indian Petro-Chemical Corporation; Oil & Natural Gas Commission; Hindustan Salts; Indian Oil Corporation and Modern Bakeries, Ahmedabad.

New Industrial Projects: The new projects envisaged include heavy water project by Atomic Energy Commission at Vadodara and telephones, machine tools, ordnance items, tractors and D.D.T.

Small-scale Industries: The number of small-scale industrial units registered with the Commissioner of Industries has increased from 32,192 at the end of 1977 to 54,758 at the end of 1982.

Industrial Estate: Gujarat Industrial Development Corporation had 132 industrial estates at the end of 1980-81.

Labour: Workers by industries: Total no. of workers: 10,984,042 (males: 9,160,398; females: 1,823,644); cultivators (males: 3,567,338; females: 547,406); agricultural labour (males: 1,611,491; females: 876,809); household industry, manufacturing, processing and repairs (males: 223,025; females: 45,255); other workers (males: 3,759,544; females: 354,174); marginal workers (males: 126,236; females: 1,592,194); non-workers (males: 8,266,006; females: 13,117,321).

Factories (1980): No. of factories 10,674; average daily no. of workers employed 635,784.

Employment Exchange: During 1980-81 about 21,000 persons were placed in employment as against the total registration of 248,000.

No. of industrial disputes (1980 provisional): 223; no. of workers involved 73,007; no. of man-days lost 1,064,380.

EDUCATION (1980-81 provisional)

Schools	Number	Pupils	Teachers
Primary	24,500	5,110,000	125,400
Secondary	3,050	986,000	35,600

Engineering Institutes	Number	Intake Capacity	Sanctioned Seats	Actual Admissions
Degree	7	1,963	2,028	
Diploma	20	3,320	3,410	

Universities: *Gujarat Agricultural University,* Sardar Krushinagar (Dantiwada) 385506. Banaskantha Dist. *Gujarat Ayurved University,* Dhanvantari Mandir, Jamnagar 361001. *Gujarat University,* Ahmedabad 380009. *Gujarat Vidyapith* (National University of Gujarat), Ahmedabad 380014. *Maharaja Sayajirao University of Baroda,* Vadodara 390002. *Sardar Patel University,* Vallabh Vidyanagar. *Saurashtra University,* Rajkot 360001. *South Gujarat University,* Univ. Campus, Udhna-Magdalla Rd., Post Box No. 49, Surat 395007.

COMMUNICATIONS (as on March 31, 1981)

Length of roads: 47,426 kms.; National highways: 1,424 kms.; State highways: 9,158 kms.; major district roads: 10,623 kms.; other district roads: 10,870 kms.; village roads: 15,342 kms.

Post & Telegraph (1980-81): No. of post offices: 8,415; Telegraph offices: 1,466.

Railways (1980-81): 5,617 kms.; broad-gauge: 1,156 kms.; metre-gauge: 3,326 kms.; narrow-gauge: 1,135 kms.

Motor Vehicles (March 31, 1981): Motor cycles: 213,749; motor cars: 47,252; taxi cabs: 1,819: auto-rickshaws: 22,488; stage carriages: 7,966; lorries: 40,051; trailers: 16,791; tractors: 24,394; others: 1,172.

PRESS (Leading dailies)

English: Times of India, Ahmedabad; Indian Express, Ahmedabad; Western Times, Ahmedabad.

Gujarati: Gujaratmitra and Gujaratdarpan, Surat; Janasatta, Ahmedabad; Loksatta, Vadodara; Phulchhab, Rajkot; Sandesh, Ahmedabad; Gujarat Samachar, Ahmedabad; Jai Hind, Rajkot; and Pratap, Surat.

GENERAL

Annual Plan: The outlay for 1983-84 Annual Plan is Rs. 9,000 million.

Rivers: The Banas, the Mahi, the Sabarmati, the Shetrunji, the Tapti, the Luni, the Narmada and the Saraswati.

Minerals: Gujarat is rich in minerals like salt, limestone, manganese, gypsum, china clay, calcite, bauxite, etc. Large deposits of bauxite of very good grade are located in Saurashtra and Kutch. The reserves of bauxite are about 17 million tonnes. The fluorite deposit located near Chhota-Udepur in Vadodara district is one of the largest in Asia and has reserves of 11.6 million tonnes. Limestone reserves run into several thousand million tonnes with the best quality located in Saurashtra and Kutch. The State also has deposits of lignite, china clay and other clays, glass and sand quartz, dolomite, agate, calcite etc.

HARYANA

Haryana State was created on November 1, 1966, following the Punjab Reorganisation Act of 1966 under which the Hindi-speaking sector of Punjab was separated from the composite Punjab. It comprises the districts of Hissar, Mohindergarh, Gurgaon, Rohtak and Karnal and parts of Sangrur and Ambala districts and part of Kharar tehsil.

CAPITAL: Chandigarh. **Area of State:** 44,212 sq. kms. **Population of State** (1981 census): 12,922,618. **Density:** 292 per sq. km. **SSex Ratio:** 877 females per 1,000 males. **Literacy:** 35.84 per cent.

Districts	Area (Sq. Kms.)	Population (1981 census)
Ambala	3,832.00	1,409,463
Bhiwani	5,099.00	920,052
Gurgaon	2,716.00	849,598
Hissar	6,315.00	1,496,534
Jind	3,306.00	938,074
Karnal	3,721.00	1,322,826
Kurukshetra	3,740.00	1,130,026
Mahendergarh*	3,010.00	959,400
Rohtak	3,841.00	1,341,953
Sirsa	4,276.00	707,068
Sonepat	2,206.00	846,765
Faridabad	2,150.00	1,000,859

(District headquarters have the same name.)

*The name of the headquarter is Narnaul.

Cities: With over 100,000 population (1981 census): Faridabad complex (area: 164.44 sq. kms.) 330,864; Rohtak (area: 22.03 sq. kms.) 166,767; Yamuna Nagar (includes Jagadhri city and Jagadhri Railway workshop colony) (area: 27.60 sq. kms.) 160,424; Panipat (area: 20.82 sq. kms.) 137,927; Hissar (area: 37.38 sq. kms) 137,369; Karnal (area: 22.10 sq. kms.) 132,107; Ambala City (area 16.94 sq. kms.) 104,565; Sonepat (area: 21.37 sq. kms.) 109,369; Ambala Cantt. (area: 37.51 sq. kms.) 121,203; Bhiwani (area: 29.74 sq. kms.) 101,277; Gurgaon (area: 24.13 sq. kms.) 100,877.

Number of Towns: 77, **Number of Villages:** 7,064 (Inhabited: 6,731).

State Boundaries: The State is bound by Punjab in the west, Himachal Pradesh in the north, Uttar Pradesh and Delhi in the east and Rajasthan in the south and west.

State Language: Hindi.

AGRICULTURE

Over 80 per cent of the people of Haryana are engaged in agriculture. Out of the total cultivable area of 3.88 million hectares, 60 per cent was irrigated during 1980-81. Production during 1981-82: Foodgrains: 6.057 million tonnes; sugarcane (gur): 0.58 million tonnes; cotton: 0.68 million bales; oilseeds: 0.15 million tonnes.

Forests (area in hectares): Reserved: 22,457; protected: 104,517; unclassified: 4,580; private: 38,105; total: 169,659.

The State Government maintains a bird sanctuary at Sultanpur, a mini zoo at Pinjore, and a deer park at Hissar.

The expenditure for the development of forests during 1980-81 was about Rs. 0.85 million.

Animal Husbandry: The State's livestock population according to 1977 census is 6.90 million, out of which 2.44 million are cattle, 2.94 million buffaloes, 0.54 million sheep, 0.58 million goats and 0.2 million pigs.

Haryana is known for its world famous Murrah buffalo and the Haryana cow. The Murrah buffalo leads all other breeds in milk yield and some of the Murrah baffaloes yield even more than 3,500 kg. of milk during lactation.

The State had only 125 veterinary hospitals and 98 veterinary dispensaries in 1966. At present there are 376 veterinary hospitals, 311 veterinary dispensaries, 63 artificial insemination centres/semen banks and 601 artificial insemination sub-centres/stockman centres and 7 mobile dispensaries.

Haryana is self-sufficient in the production of various animal vaccines at the Haryana Verterinary Vaccine Institute and it contributes a large quantity of these vaccines to the neighbouring States..

Cross and selective breeding programmes are undertaken for the development of livestock and to improve the milk yield of cattle. Now the known exotic Jersey and Holstein bulls are produced within the State at the Indo-Australian Cattle Breeding Farm, Hissar.

Haryana has five milk plants at Jind, Bhiwani, Ambala, Rohtak and Ballabgarh in the co-operative sector with a total capacity of 0.23 million litres of milk per day. One milk plant is under construction at Sirsa with a handling capacity of 0.1 million litres of milk per day.

Poultry: The State has 1.39 million poultry population. One Govt. poultry farm with 2 poultry hatcheries at Hissar and Bhiwani have been set up in the State. About 210 million eggs are annually being produced in the State.

Piggery: Population: 202,000. Two pig breeding farms (Hissar and Ambala) and 13 piggery development blocks are functioning.

Poor Beneficiary Programme: Under the poor beneficiary programme the small/marginal farmers and landless agricultural labourers have been provided assistance by way of loan and subsidy and the following units have been set up in the State. Cross breed calf rearing units: 18,112; Sheep units: 7,324; Poultry units: 4,203; Piggery units: 2,466.

IRRIGATION AND POWER

Irrigation: The gross irrigated area from all sources is 3.31 million hectares. Out of which irrigation from canals is 1.89 million hectares. The main irrigation schemes are: Western Yamuna Canal (excluding Delhi Area); Gurgaon Canal; Bhakra Canal System; Jui Lift Irrigation Scheme; Loharu Lift Irrigation Scheme; Sewani Lift Irrigation Scheme; ILN Canal; Naggal Lift Irrigation Scheme; Agra Canal.

The Agra Canal which is maintained by U.P. Irrigation authorities, provides irrigation facilities in parts of Faridabad and Gurgaon districts to an area of 61,165 (CCA) hectares.

The long-pending dispute of allocation of the Ravi-Beas waters to Haryana was settled amicably on 31st December, 1981. By this the State will get share of 3.50 MAF after the completion of the SYL Canal in Punjab Territory. A portion of the SYL canal has already been completed in Haryana State and is ready to receive and utilise this water as soon as it is made available.

In addition to the above the work for modernisation of channels and lining of water courses are in full swing in achieving optimum utilisation of Haryana's meagre water resources for increasing agricultural production.

Electricity:

Distribution	As on March 1967	As on March 1983
Installed generation capacity	343 M.W.	1213 M.W.
Per capita consumption of electricity (Units)	57	247
Village streets lighted	323	4,000
Electrified villages	1,251	6,731
Power-run tubewells	20,000	2,51,989
Power-run industries	9,700	49,429
Electric connections for domestic & commercial purposes	2,82,000	11,29,795
Total connections (number)	3,12,000	14,38,398

INDUSTRIES

Today the State has a very sound industrial base. Small scale units have increased from 4,519 in 1966 to over 42,000. Dispersal of industries in the rural areas is being vigorously pursued. A liberal package of incentives has been made available to attract entrepreneurs to set up industrial units in the hitherto ignored rural areas of the State. Under this scheme 13,056 units have been set up. These units have provided employment to 38,106 persons of which 22,852 persons belong to weaker sections of the society. There are 307 large and medium scale units producing goods worth over Rs. 11,475 million in a year.

Over 1,235 industrial licences and letters of intent have been granted under large and medium scale industries to manufacture items such as tractors, sulphuric acid, paper and paper boards, carbonless copying paper, vegetable ghee, electronic components, television sets, refrigerators etc.

Labour (as on December 31, 1982): No. of registered Trade Unions: 749; no. of registered factories: 4,146; no. of workers employed in the registered factories: 195,950; no. of disputes handled: 4,335; no. of disputes settled: 725; no. of disputes referred for arbitration: 2; no. of disputes referred for adjudication: 1,128; no. of mandays lost due to work stoppages: 275,853.

EDUCATION (1982-83)

Schools	Govt.	Non-Govt.	Total
Primary	4782	51	4833
Middle	1002	42	1044
High	1360	229	1589
Hr. Sec.	78	26	104

Total number of teachers: 59,617

Total number of students: 21,24,109.

Colleges:			
General Education	32	74	106
Arts & Science	32	74	106
Teachers Training	1	19	20
University			

Universities: Haryana Agricultural University, Hissar, for research and extension education. The University follows the timester system, as in the Land Grant Universities in the United States. The University has four constituent colleges all of which are residential institutions.

Kurukshetra University, Kurukshetra, for the encouragement of research especially in Sanskrit, Prakrit, Indian philosophy etc. It has developed into a multifaculty institution with 24 departments.

Rohtak Maharishi Dayanand University has started functioning since 1976 and 12 colleges within a radius of 16 kms. are affiliated to it. Government has decided to transfer all the colleges of

Rohtak, Gurgaon, Mohindergarh, Bhiwani and Sonepat Dists., from Kurukshetra University to Rohtak University.

PUBLIC HEALTH

	As on 31.12.1982
Hospitals, Dispensary and Primary Health Centres	451
Total No. of Beds	8,899
Per Capita expenditure on health	24.90 (1982-83)
Per Capita expenditure on medicines	2.01 (1982-83)

Family Planning	During the year 1982-83
Number of Family Welfare Planning Centres	132
Sterilisation operations performed during the year 1981-82	86,519
IUCD insertions done (1981-82)	37,806

HOUSING

Under the housing programme, 16 urban estates have been set up at different places in Haryana. The Housing Board has built 17,658 houses of which nearly 13,381 are for the economically weaker sections of society upto May 1983.

COMMUNICATIONS

Roads (31.3.1983): Metalled 19,344 kms. maintaining link with almost all villages.

Haryana Roadways during the year 1982-83 operated its services from 14 depots and 16 sub-depots to cover 0.7 million kms. and carry 0.95 million passengers per day. The fleet and staff strength of Roadways was about 2,726 buses and 14,245 persons respectively.

GENERAL

Annual Plan (1982-83): The Annual Plan 1982-83 has been fixed at Rs. 3,323.23 million. The headwise details of the outlays are as under: Agriculture and allied services: 573.12; co-operation: 97.8; water and power development: 1,819.7; industry and minerals: 58; Transport and communication: 257.9; Social and community services: 488.9; Economic services: 1.7; general services: 25.98.

Press: Some Hindi dailies are registered in the State, but their publication has been erratic.

Tourism: Haryana Govt. has set up 32 tourist complexes in different parts of the State where facilities like restaurants, motels, accommodation, angling, boating, conference rooms, games etc. have been provided.

Lakes: There are five lakes in the State. They are Badkhal lake, 51.40 hectares, about 32 kms. from New Delhi and 5 kms. from Faridabad; Peacock lake at Suraj Kund, about 18 kms. from New Delhi; Karnal lake at Uchana, near Karnal on Delhi-Ambala national highway, about 124 kms. from New Delhi; Tilyar lake at Rohtak on Delhi-Ferozepur highway, about 72 kms. from Delhi and Damdama lake which lies 64 kms. from Delhi near Delhi highway. A big Lake resort has been planned for this complex.

HIMACHAL PRADESH

Himachal Pradesh, the 18th State in the Indian Union, often called India's open zoo for its abundant wild life, is larger than the Punjab, Haryana or Kerala in size. Situated in the lap of the Himalayas, on the eastern side it forms India's boundary with Tibet. It became a full-fledged State on January 25, 1971. The 30 former Hill States have all been amalgamated to form the State. In 1954 Bilaspur was merged with Himachal Pradesh and the districts of Shimla, Kulu, Kangra, Lahaul and Spiti and parts of Hoshiarpur and Ambala districts were also added to the new State.

CAPITAL: Shimla*. **Area of State:** 55,673 sq.kms. **Population of State** (1981 census): 4,280,818. **Density of Population:** 82 per sq.km. **Literacy:** 42.5 per cent. **Sex ratio:** 973 females per 1,000 males. **Decennial growth rate** (1971-82): 22.46 per cent. **Per capita income** (1981-82): Rs. 1,659 (at current prices)

Boundaries: The State is bound by Jammu and Kashmir in the north, Punjab in the west and south-west, Haryana in the south, Uttar Pradesh in the south-east and Tibet in the east.

Districts	Headquarters	Area (Sq. Kms.)	Population (1981 Census)
Bilaspur	Bilaspur	1,167	247,368
Chamba	Chamba	6,528	311,147
Hamirpur	Hamirpur	1,118	317,751
Kangra	Dharamsala	5,739	990,758
Kinnaur	Kalpa	6,401	59,139
Kulu	Kulu	5,503	238,734
Lahaul-Spiti	Keylong	13,835	32,100
Mandi	Mandi	3,950	644,827
Shimla	Shimla	5,131	510,932
Sirmur	Nahan	2,825	306,952
Solan	Solan	1,936	303,280
Una	Una	1,540	317,422

State Language: Hindi.

No. of Villages: 16,916; **No. of Towns:** 38.

AGRICULTURE

Seventy-five per cent of people are engaged in agriculture and horticulture. Irrigated area forms 20 per cent of the net area sown. Fruits, potatoes, ginger, vegetable seeds, apples, stone fruit etc., and wheat, maize, and paddy are the major crops under cultivation. The production of foodgrains during 1981-82 was about 11.91 million tonnes. During 1981-82 production of potatoes and ginger has gone up to 0.1 million and 20,000 tonnes respectively.

Horticulture: Himachal Pradesh is an ideal region for growing many kinds of fruits. Area under fruits and production of fruits have been increased to 107,600 hectares and 0.34 million tonnes respectively during 1981-82.

There is potential for the development of crops like hops, mushrooms, olives and figs etc. An UNDP project with a provision of Rs. 12.77 million has been completed for the development of mushrooms. A bulk pasteurisation plant has been set up for the manufacture of mushroom compost to be distributed to mushroom growers on subsidised rates. During the year 1982-83, 420 tonnes of mushroom compost was distributed among 592 small marginal farmers which helped in additional production of 500 tonnes of mushrooms.

Sarda Melon will also be developed as a new cash crop in the tribal dry areas of the State.

For solving marketing problems a project worth Rs. 163.1 million is under implementation with the assistance of World Bank. Fruit Processing Plant at Parwanoo, one of the biggest plant in Asia has been commissioned during 1981.

Area (in hectares) and production (in '000 tonnes) of fruits during 1981-82 respectively: Apples: 45,360; 306.80; Other temperate fruits: 19,386; 17.62; nuts and dry fruits: 7,671; 1.58; citrus: 16,822; 9.34; other sub-tropical fruits: 10,845; 6.55

Animal Husbandry: Himachal Pradesh has got small, fragmented holdings in hill terrain. As such, only bullocks are used extensively for agricultural purposes. Besides, rearing of goats and sheep also assumes importance to provide wool, hair and meat. Livestock population for (1977) census is given hereunder (in '000): Cattle: 2,106, buffaloes: 560, sheep: 1,055, goats: 1,035, horses and ponies: 15, mules and donkeys: 14 pigs: 5, other livestock, poultry: 330.

With a view to providing remunerative rates to the milk producers and wholesome milk at reasonable rates to the consumers, seven milk supply schemes are functioning in Mandi, Nahan, Shimla, Kangra, Chambal, Bilaspur and Nathpa-Jakhri.

Forests: Forests cover an area of 21,189 sq. kms. which accounts for 39 per cent of the total geographical area of the State. Most of the forests belong to Government. *Deodar*. *Kail*, *Chil*, *Spruce*, Silver fir. *Neoza* pine and the coniferous species are growing in the forests. *Neoza* pine which produce edible nuts grows in Kinnaur district. These are the only forests of *Neoza* in India. Among the broad leaved species *Sal*, *Ban*, Oak, *Mohru Oak*, *Kharsu* Oak, Walnut, Malpe, Horse chestnuts, *Poplam*, *Seemal*. Tun and *Shisham* are the important species.

POWER

Himachal Pradesh has vast hydel potential which is estimated to be bearly, 12,435 MW at 60 per cent load-factor. The projects now in hand and under investigation promise to yield surplus power to the State. Giri Hydel Project, the first major project in the State, went into commercial production during 1978-79.

By the end of March, 1982, out of 16,916 inhabited villages in the State, 12, 794 villages had been electrified.

Generation and consumption of electricity (in Million KWH) respectively (1981-82): 431.7; 273.6.

INDUSTRIES

The number of registered small scale industrial units, at the end of the year 1982, was 6,000 providing employment to about 20,000 persons, besides various numerous cottage and village industrial units. Some of the major and medium scale industries are Nahan Foundry, Nahan, Rosin and Turpentine Factories at Bilaspur and Nahan and Mohan Meakin Breweries at Solan. In the year 1979, three such units viz. M/s Gabriel India, Parwanoo, Cement Corporation of India Ltd., Rajban and M/s Ranger Breweries India Ltd., Mehtapur went into production. District Industries Centres were established in all the 12 districts. The Government provides land/industrial sheds to the industrialists in industrial areas/estates. Industrial area at Parwanoo, Barotiwala, Paonta Sahib, Bilaspur, Nagrota, Bhagwan Shamshi and Mehatpur and industrial estates at Solan. Dharampur, Kangra, Jawali, Dehra Gopipur and Peo have been established. Government of India has declared the entire State as "Special Region" for intensive industrialisation and now new industries set up in the State will be entitled to an outright subsidy of 25 per cent on investments.

Drinking Water Supply: The State Government has given priority to provide hygienic drinking water to the people. Out of 16,916 villages of the State, 9,487 villages had been provided with hygienic drinking water facilities by the end of March, 1982 thereby serving 2,185.000 persons.

EDUCATION

Himachal Pradesh ranks 15th in literacy percentage among the States and Union Territories of India with a percentage of 42.48. Establishment of an Agricultural University at Palampur and Sainik School at Sujanpur are two important achievements in the field of education.

The following are the number of schools and students (in '000) and teachers respectively (1981-82): Primary: 6,229; 565.4; 15,060; Middle: 1,047; 218.5; 5,449; High/Higher Secondary: 690; 74; 9,091; Colleges of General Education: 27; 19; 736.

University: HP University, Summerhills, Shimla, and H.P. Agriculture University. Palampur.

PUBLIC HEALTH (1981)

Hospitals: 53: Primary Health Centres: 77; Allopathic dispensaries: 2,000, Family Planning Clinics: 73; Beds available: 5,841; Doctors: 655; Vaids: 419; Nurses: 1,135.

COMMUNICATIONS (1981-82)

Buses 940; Trucks 20; Other vehicles 37; No. of routes under operation 743; distance covered ('000 kilometres) 62,281; Passengers carried (million) 50 (estimated).

Roads (1982): Motorable double lane: 1,994; motorable single lane: 11,129; jeepable: 713; less than jeepable: 4,499.

EMPLOYMENT (1981)

No. of employment exchanges: 14; No. of candidates registered: 72,536; No. of vacancies notified: 12,093; No. of candidates placed: 7,875; No. on live-register: 159,985.

GENERAL

Sixth Plan Outlay (1980-85): (Rs. in million) Agriculture and allied services: 14,086.00; Cooperation: 675.00; water and power development: 15,348.00; industry and minerals: 1,805; transport & communications: 11,865.10; social and community services: 10,826.00; economic services: 45.00; general services: 1,350.00. Total 156.000.00.

Minerals: Important minerals of Himachal Pradesh are salt, slate, gypsum, limestone, barytes, dolomite, pyrites etc. The state is also known to have iron ores, copper, lead, phosphate and several other minerals which await proper investigations and surveys for their exploitation. Rock salt deposits are located in Mandi district and gypsum in Sirmur district. Vast deposits of slate are found in Mandi, Chamba and Kangra districts. Limestone is found in abundance in Sirmur, Bilaspur and Kangra, Mandi and Shimla districts. Sirmur, Bilaspur, Kangra deposits of limestone are of a quality suitable for cement industry.

Rivers: The Sutlej, The Beas, The Ravi, The Chenab, The Yamuna.

Lakes: Govind Sagar, Pong Dam Lake, Renuka, Rewalsar.

*Simla to be spelt as Shimla as per official communication.

JAMMU AND KASHMIR

Kashmir, a vital border State, occupies a strategic north-west position and is surrounded by Pakistan and China. Its history goes back to centuries spanning Mauryan rule under Asoka. Kashmir acceded to India on October 26, 1947, under the Instrument of Accession. In February, 1975, the historic Kashmir accord opened a new chapter in the political history of Kashmir which gives Kashmir a privileged portion among the Indian States.

CAPITAL: Summer—Srinagar; Winter—Jammu; **Area of the State:** 222,236 sq. kms. (provisional geographical area figures supplied by the Surveyor-General). Of this 78,932 kms. are under illegal occupation of Pakistan and 5,180 kms. illegally handed over by Pakistan to China. This also includes 37,555 kms. under illegal occupation of China (1971 Census),

Population of the State (1981 Census): 5,954,010.

Sex Ratio (1981 Census): 953 females per 1,000 males.

Major cities: (Population and area—1971 Census): Srinagar 403,413; 47.08 sq. kms.; Jammu 155,338; 20.46 sq. kms.

No. of towns: 45, **No. of villages:** 6,749, **No. of Tehsils:** 49.

State Boundaries: The State is bound by Pakistan in the west, Afghanistan and USSR in the north-west, China in the north, Tibet in the east and Himachal Pradesh and Punjab in the south.

State Languages: (a) Official: Urdu; (b) Regional: Kashmiri, Dogri, Balti, Dardi, Pahari, Ladakhi and Punjabi.

AGRICULTURE

Agriculture employs about 80 per cent of the population. The major crops are paddy, maize and wheat. Barley, bajra and jawar are also grown in some parts. Gram is grown in Ladakh.

Districts (14)	Area (in sq. kms.)	Population (1981 Census)
I. Kashmir province		
Anantnag	1,207.0	654,945
Baramulla	1,458.4	669,405
Leh (Ladakh)	394.0	67,773
Srinagar	502.9	721,078
*Pulwana	962.5	404,351
*Badgam	777.3	352,759
*Kupwara	667.6	327,552
*Kargil	183.1	64,566
II. Jammu province		
Doda	11,691.0	224,390
Jammu	3,165.0	928,638
Kathua	2,651.0	365,029
Poonch	1,658.0	222,490
Rajouri	2,681.0	298,830
Udhampur	4,549.0	452,244

* These districts have been newly created, and came into being on July 1 1979.

The District headquarters are of the same name.

The area under food crops in 1980-81 was 0.891 million hectares of which paddy was grown over 0.265 million hectares, wheat 0.202 million hectares and maize 0.275 million hectares. The area under high yielding varieties in 1980-81 was 0.455 million hectares.

The food grain production in 1981-82 was estimated above 1.4 million quintals. The State expects to be self-sufficient in food by the end of Sixth Plan when the production is likely to touch 1.75 million quintals.

The offtake of fertiliser in 1981-82 touched 42,000 tonnes against 20,000 tonnes in 1981.

Agrarian Reforms: The State was the first in the country to have introduced radical agrarian reforms in 1948-50 abolishing all "Jagirdari" and feudal institutions. The Agrarian Reforms Act (dealing with land reforms), the Debtors Relief Act (concerning the problems of rural indebtedness) and the Restitution of Mortgage Properties Act (providing for Restitution of Mortgages made in distress) have been enacted by the State Legislature since 1975. The Agrarian Reforms Act came into force in July, 1978.

The Agrarian Reforms are being vigorously implemented in the State. At present basic work of the reforms has been completed in over 4,826 villages out of 6,915 villages in the State the attestation of mutation under Sections 4, 5 and 6 of the Act has been completed in 5,723 villages.

Horticulture: The area under fruit growing in Jammu and Kashmir State touched 8,096.795 million hectares in 1981-82 against 4,047.709 million hectares in 1980-81. Fruit export during 1982-83 totalled 0.3628 million tonnes against 0.3525 million tonnes in 1981-82

An integrated Rs. 250 million horticulture development project is under execution with the assistance of World Bank, to provide services for apple and walnut growers. Another Rs. 6.3 million apple grading project is under execution at Nowapora, Sopore with the assistance of Australian Government. The production of walnuts during 1982-83 was 20,000 tonnes out of which 5,000 tonnes were exported.

Livestock (1971 Census): The State's livestock population stood at 4.527 million. Break up (in million): 2.138 cattle, 0.501 buffaloes, 1.216 goats, 0.56 horses and 0.069 ponies. Poultry population stood at 2.125 million. Milk production crossed 0.3 million litre mark in 1980-81 against 0.23 million litres in 1979-80. Egg production touched 22 million during 1980-81 as against 20.01 million in 1979-80. Meat production touched 0.82 million kilograms in 1980-81 against 0.76 million kilograms in 1979-80.

IRRIGATION AND POWER

The installed capacity of power has risen from 6.5 MW in 1947 to 209 MW at present. As per survey conducted the State has the potential to produce 10,000 MW of hydel power during the end of Sixth Plan. The number of villages electrified by 1982-83 end is 6,591. The major and medium irrigation potential (ending 1980-81) was 3.25 hectares supplemented by an equal potential of minor irrigation. One new major scheme namely Malali Thang Canal has been taken in hand and the scheme will irrigate 285 hectares and is estimated to cost Rs. 16 million. About 12 new major schemes are in progress. During the Sixth Plan the irrigation has continued to occupy the priority position and Rs. 609.4 million are proposed to be spent on medium and major schemes and Rs. 445 million on minor irrigation schemes. The projects which are under construction are Stakna Hydel Project with a capacity of 4 MW at a cost of Rs. 127.5 million, Kargil Micro Hydel Scheme with a capacity of 3.75 MW of power has an expenditure of Rs. 66.7 million and Seva Hydel Project has a capacity of 96 MW at a cost of Rs. 480 million.

COMMUNICATIONS

Kashmir is linked with the rest of the country by the motorable Jammu-Pathankot road. The Jawahar Tunnel passing through the Banihal mountains, connects Srinagar and Jammu.

The total road length at the end of 1980-81 was 7,865 kms. including surfaced and unsurfaced roads. In 1981-82, 35 kms. are being added to it. Work on other Centrally sponsored roads include Rs. 220 million Mandi-Loren-Sultan Pathri-Thousmaidan road and Kapran-Dessa-Doda road at a cost of Rs. 240 million.

Road Transport: The State had 2,476 buses and mini buses in 1980-81 both in public and private sectors as against 2,410 in the year 1979-80, trucks numbered 6,241 and taxies 2,222. The strength of private cars and station wagons stood at 4,511. The number of motor cycles and scooters was 13,101, and jeeps 2,292. Auto rickshaws numbered 1,800 and other vehicles 245 in 1980-81.

Railways: Kashmir was linked with the Indian Railway system on 3rd December, 1972 when the line between Jammu and Pathankot was opened. The line is now being extended upto Udhampur. The inauguration of Udhampur-Jammu line project was done by Prime Minister on 13th April, 1983.

Posts & Telegraphs: The State has 1,510 post offices, 97 telephone exchanges and 14,222 private telephone connections at the end of 1982-83.

EDUCATION

The literacy percentage in 1981-82 was 26.17 as against 18.58 in 1971. Education is free at all levels. There are two universities at Srinagar and Jammu, which have 37 teaching departments and 42 affiliated colleges. There are two medical colleges, one agricultural university, two polytechnics, one engineering college and 8 oriental colleges in the State.

INDUSTRIES

The medium and small sector receives emphasis as the geographical constraints do not favour large scale industries. While preference is being given to the local entrepreneurs, industrialists from outside the State are encouraged for investment in areas where local entrepreneurship is not forthcoming or where technical expertise is absent.

In Bani Bharamana industrial complex in Jammu, the biggest in the State, the following industries have come up: a detergent plant of Hindustan Levers, a cigarette factory, a scooter factory, three resin-based factories for down-stream products, 2 pencil factories, a joinery mill, 2 vanaspati mills, a precast cement factory and an annealed wires manufacturing unit. The units in the pipeline for the complex include steel re-rolling mills, flour mills, textile mills, rear-axle shaft project, export-oriented joinery mills, calcination factory for bauxite, piston and piston rings project and 2 agro-based factories. A Rs. 20 million gypsum-based wall board factory, 2 paper mills, extension by 10,000 tonnes of Hindustan Levers detergent plant, a plant nutrients factory and additional 25,000 spindlage in Chinab Textile Mills, Kathua stand cleared for implementation. Land for raising an industrial complex in Udahampur has been identified as part of the programme to disperse industry in other districts.

In the Kashmir Division an industrial area for large and medium horticulture-based industries has been set up. The division had no such industrial area. M/s. Cadbury India Limited have recently put up a project in the area. The area will also provide facilities to small scale units for fruit processing. Another industrial complex is coming up at Khanmuh and a Rs. 6 million export-oriented joinery mill by a local entrepreneur will shortly go in production there. Other units to come up at all the complex include woven sacks factory, a match factory, and a hollow silica bricks factory. These involve an investment of Rs. 15 million. A roofing tiles unit, a cattle feed plant, a canning unit and a honey processing unit are other industries slated for being established in the complex. A sports goods complex is also coming up at Bijbehara.

A 600-ton a day capacity cement plant has been constructed. A Rs. 65 million spun silk project is also coming up. The units that have already come up include the UNDP, wool combing and utilisation project. Other projects on the anvil for the division include manufacturing of calcium carbide, acetylene black and cardboard boxes project to replace the traditional wooden packing cases for fruit.

An electronics complex set up at Rangreth in Srinagar will go a long way in the promotion of electronics industry in Kashmir.

District industries centres have been set up in all the districts. These centres provide all the needed facilities to the entrepreneurs under one roof.

In the small-scale sectors the number of units registered has risen from 6,387 to 8,428 in 1981-82. These units provided employment to over 40,000 persons in 1981-82.

The handicraft sector has witnessed remarkable progress. The handicrafts production in 1981-82 is likely to touch 680 million with carpets alone accounting for Rs. 320 million.

PUBLIC HEALTH

In 1981-82, the State had 2 main general type of hospitals, special women's hospital, 8 special type hospitals, 2 chest disease hospitals, 2 children hospitals, 2 mental hospitals, 2 leprosy hospitals, 1 BC and joint surgery hospital, 14 district hospitals, 9 sub-district hospitals, 88 pimary health centres, 302 sub centres, 433 allopathic dispensaries, 436, unani/ayurvedic clinics and 5 leprosy control units.

No. of Hospital Beds: State Headquarters 2,615; District Headquarters 2,445.

Staff: Doctors 2,000, dentists 112, nurses 985, midwives/dais 890, compounders 786, dawasaaz 400, inspectors 145, basic health workers 516.

The National Medical Institute at Soura has partially been commissioned.

Rehbar-i-Sahat Project, a mobile experiment has been introduced in 2 blocks (Ganderbal and Kotibalwal) where teachers are trained by doctors to provide simple health facilities to rural people. This unique experiment in medicare has proved a big success in the State and the entire State is expected to be brought under this programme.

GENERAL

Important Rivers: The Jhelum, the Sindh (Kashmir), the Tavi, the Chenab and the Ravi (Jammu).

Important Lakes: Dal Lake, Wullar, Manshal, Nagin Lake (Kashmir), Surinsar, Mansar and Sansaar (Jammu).

Tourism: Tourism is the premier industry of the State. The number of tourists to the valley in 1982-83 (ending March, 1983) was 13,980 out of which 2,065 were foreigners and near about, 76,063 tourists visited the holy shrine of Vaishnodevi during 1982-83 (ending March, 1983).

Forests: The State has a forest area of 21,080 sq. kms. of which 7,477 sq. kms. are available for timber exploitation and rest function as protective forests. The State earned over Rs. 340 million as forest revenue in 1980-81. Resin production was over 388,000 quintals. More than 8 million saplings were planted during 1981-82. The export of timber in 1979-80 was about 220,000 cubic mtrs. The outlay for the sector was Rs. 45 million in 1980.

Water Supply: The number of villages covered under piped water supply by the end of March, 1981 was about 2,000 with a population of 0.2 million. 369 more villages, with a population of 310,000 are being covered in 1980. In the urban sector, all the 49 towns are being provided potable water. The supply to Jammu and Srinagar is being augmented under a Rs. 3,498 million Master Plan.

Religion: Muslims constitute overwhelming majority of the population. Other communities are Hindus, Sikhs, Buddhists and Christians.

Press: The State has 37 dailies, 123 weeklies, 27 fortnightlies and 12 monthlies.

a) Srinagar—Khidmat, Aftab, Srinagar Times, Aina, Hamdard, Zamindar, Wullar, Navjeevan, Srinagar Express, Nazwa-i-Subh, Roshni, Madar-i-Kashmir.

b) Jammu—Excelsior, Kashmir Times; Quami Awaz, Sandesh, Imarat, Sharda, Ujalla, Advice, Waqat, Such, Raftar, Times of Cartoon.

Annual Plan: The Sixth Plan outlay is Rs. 9,000 million. The outlay for 1983-84 is Rs. 1,800 million.

KARNATAKA

Karnataka, which is a derivative of Karunadu, meaning high plateau land, is the eighth largest State in area and population. Under the Mysore State (alteration of name) Act of 1973, the nomenclature was changed from Mysore to Karnataka, thereby reviving memories of the glorious history of the epics. It has inherited great traditions of its ancient predecessors: the Cholas, the Chalukyas and the Vijayanagar Empire. It brought together the Kannada-speaking people in five States and the areas of the old State of Mysore and Coorg and the Bijapur, Kanara and Dharwar districts and the Belgaum district, the major portion of the Gulbarga, Raichur and Bider districts, the South Kanara districts and the Kodegal taluka of Coimbatore district in Madras.

CAPITAL: Bangalore. **Metropolitan area:** 500 sq. kms.; **Population** (1981 census): 2,913,537.

Area of State: 191,791 sq. kms. **Population of State** (1981 census): 37,043,451. **Density:** 193 per sq. km. **Sex Ratio:** 963 females per 1,000 males. **Literacy:** 38.41 per cent.

Districts	Area in '000 sq. kms.	Population (1981 census)
Bangalore	8.0	4,921,828
Belgaum	13.4	2,974,861
Bellary	9.9	1,487,062
Bidar	5.5	994,106
Bijapur	17.1	2,399,124
Chikmagalur	7.2	908,626
Chitradurga	10.9	1,774,717
Dakshina Kannada	8.4	2,373,359
Dharwad	13.7	2,939,988
Gulbarga	16.2	2,075,368
Hassan	6.8	1,351,923
Kodagu	4.1	460,164
Kolar	8.2	1,898,984
Mandya	5.0	1,414,383
Mysore	11.9	2,584,878
Raichur	14.0	1,779,942
Shimoga	10.5	1,657,564
Tumkur	10.6	1,975,331
Uttara Kannada	10.3	1,071,243

Districts: The names of the districts with area and population are tabulated above. The headquarters of the districts are of the same name except for the following districts where the name of the headquarters are given in the brackets: Dakshina Kannada (Mangalore); Kodagu (Madikeri); Uttara Kannada (Karwar).

No. of Villages: Inhabited 26,826; uninhabited 2,707; total 29,533.

State Boundaries: The State is bound by Kolhapur, Sangli, Solapur, Osmanabad and Nanded districts of Maharashtra in the north, Medak, Hyderabad, Mahbubnagar, Kurnool, Anantapur and Chitoor districts of Andhra Pradesh in the east, Salem and Nilgiri districts of Tamil Nadu in the south-east, Cannanore district of Kerala in the south and Arabian Sea in the west.

State Language: Kannada.

Major Cities (Over 100,000 population) (1981 census): Bangalore city (Urban Agglomeration): 2,913,537; Hubli-Dharwar: 526,493; Mysore: 476,442; Mangalore: 305,513; Belgaum: 300,290; Gulbarga: 218,621; Bellary: 201,014; Devangere: 196,481; Bijapur. 146,808; Shimoga: 151,562; Bhadravati: 130,159; Kolar Gold Fields: 144,406; Raichur: 124,600; Gadag-Betegeri: 116,596; Hospet: 114,711; Tumkur: 109,234; Mandya: 100,264.

Land Utilisation in hectares: Net area sown: 10,330,437; Fallow land: 1,563,042; Net area irrigated: 1,387,480; Forests: 3,019,090.

Land Reforms: Ceiling per family: 4.047 hectares of 'A' and 'B' class of land, 8.094 hectares of 'C' class land and 16.187 of 'D' class land. Plantations are exempted.

No person who has an annual income of Rs. 12,000 or more from any non-agricultural source can acquire agricultural land after March 1, 1974. From the same date all tenanted lands have been transferred to the Govt. and the traditional tenant-landlord relationship has been snapped. No agricultural land can be sold for non-agricultural purposes.

Each taluka has one or more land tribunals. At present, there are 294 tribunals. The tribunals are conferring ownership on tenants and distributing surplus lands to the landless. The work of the tribunals has been very nearly completed.

Upto 1983, over 0.8 million applications were disposed of, nearly 0.5 million in favour of tenants. 105,426 hectares have been determined to be surplus after the application of ceiling. 23,436.17 hectares have been distributed to 12,000 persons.

AGRICULTURE (1981-82)

Principal crops	Production (million tonnes)	Area (million hectares)
Rice	2.2	1.1
Ragi	1.4	1.1
Jowar	1.4	1.7
Bajra	0.20	0.5
Maize	0.43	0.15
Wheat	0.23	0.34
Minor Millets	0.16	0.34
Pulses	0.59	0.14
Commercial Crops:		
Groundnut	0.61	0.77
Sugarcane	12.50	0.16
Arecanut	0.08	0.55
Dry Chillies	0.04	0.15
Tobacco	0.03	0.51
Cardamom	0.002	0.02
Coconut	883.8 (nuts in million)	0.17
Cotton	0.5 (million bales of 170 kg.)	0.96
Pepper	0.008 (million quintals)	0.03
Coffee	0.081	0.16

Animal Husbandry (1981—in '000): Cattle: 10,221.96; buffaloes: 3,278.13; sheep: 4,536.48; goats: 3,388.14; poultry: 9,696.01; veterinary institutions: 1,296; fish catch: 231.122 tonnes.

IRRIGATION AND POWER

Irrigation (1982): Total area under irrigation: 2,200 million hectares. Irrigation is 22 per cent of the sown area. The cultivable area is 13.00 million hectares and the net sown area is 11.00 million hectares. The ultimate irrigational potential is estimated at 5.5 million hectares. Karnataka has invested nearly Rs. 8,000 million in irrigation since the beginning of Five Year Plans. Irrigation potential under major and medium projects is expected to reach 1.13 million hectares by 1982-83; actual utilisation is 0.98 million hectares.

Power (1982): Installed capacity: 1,847 megawatts; electricity generated: 7,356 million units; revenue villages electrified: 18,620; Pumpsets energised: 0.35 million.

No. of registered factories: 11,846; no. of textile units: 3,469; no. of chemical factories: 350; no. of engineering factories: 1,300; employment in registered factories: 608,087.

Sericulture is the most important of rural industries providing employment to about 2 million people.

Industrial Estates: No. of Government estates: 27.

Industrial Development Agencies: See chapter on "State Govt. Undertakings".

MAJOR INDUSTRIES (upto December 1982—provisional)

Type of Industries	No. of factories existing	Production in tonnes
Iron & Steel	1	173,810
Cement	6	1,307,120
Sugar	20	234,108
Paper	6	75,280
Vanaspati	5	4,384
Aluminium	1	43,958
Fertiliser	2	237,974
Gold	2	809 kgs.
Silver	2	57 kgs.

Labour: No. of Unions: There were 1,310 trade unions on register during 1982-83 covering 400,000 workers.

EDUCATION (1982-83):

Schools: Primary Schools: 35,200; high schools: 2,370; polytechnics: 41; colleges: 436 (general and professional); pre-university institutions: 651,

Enrolment: Standard I to IV: 1,574,880; primary: 3,020,572; secondary: 677,000; colleges: 188,000

No. of Teachers: Lower primary: 32,900; higher primary: 72,000; secondary: 28,000.

No. of Medical Colleges: 21, including 12 allopathic institutions.

Technical education: No. of engineering colleges: 39; No. of polytechnics: 35.

Universities: Bangalore University, Bangalore 560001; Karnataka University, Dharwar 580003; University of Agricultural Sciences, Bangalore 560003; University of Mysore: 570001; Indian Institute of Science, Bangalore 560012; Gulbarga University, Gulbarga 585101; Mangalore University, Mangalore 575001.

PUBLIC HEALTH (1982-83)

No. of hospitals including State, Central, ESI, Municipal and private: 233; primary health centres and units: 1,515; strength of beds in hospitals and dispensaries: 34,774; no. of medical colleges: 12.

COMMUNICATIONS (1982-83)

Length of roads: 98,523 kms.; National highways: 1,968 kms.; State highways: 7,813 kms.; major district roads: 13,200 kms.; other district roads: 10,000 kms.; village roads: 32,987 kms.

Total length of railway: 3,125 kms. including the Bangalore-Salem rail link and the Hasan-Mangalore railway opened to goods traffic. Broad gauge 546 kms.; metre gauge 2,788 kms.; narrow gauge 153 kilometres.

Registered motor vehicles: 370,000.

No. of airports: 3 (Bangalore, Belgaum and Mangalore); no. of airstrips: 4.

No. of ports: 20. Coastal belt: 287 kms.

Posts and Telegraphs (1980): No. of radios: 507,827; post offices: 9,337; telegraph offices: 2,463; telephone exchanges: 508; telephones in use: 142,993.

GENERAL

Rivers: There are two great river systems in Karnataka: Krishna in the north and the Cauvery in the south. The only streams flowing west to the Arabian Sea are those in the north-west, which, uniting in the Sharavati, hurl themselves down the Ghats in the magnificent Gersoppa or Jog Falls.

Rivers that flow into the Krishna: the Tunga, the Bhadra, both these uniting in the Tungabhadra and the Hagari (or Vedavati).

Rivers that flow into the Cauvery: the Hemavati, the Lokapavani, the Shenisha, the Arkavati, the Lakshmantirtha, the Kabbani or Kapila and the Honnuhole or Suvarnavati.

Other Rivers: The Varada, the Kalinadi, the Gangavali, the Tadri, the Netravati, the Kumaradhari, the Gurpur, the Swarnanadi, the Sitanadi, the Malprabha, the Dharma, the Don, the Bhima and the Ghatprabha.

Press (Major daily newspapers): *English:* Deccan Herald, Bangalore 560001; Hindu, Bangalore 560001; Indian Express, Bangalore 560001; *Kannada:* Prajavani, Bangalore 560001; Kannada Prabha, Bangalore 560001; Samyukta Karnataka, Bangalore 560025 and Hubli; Nav Bharat, Mangalore 575003; Janavani, Bangalore 560001; Udayavani, Udipi 576101.

Minerals: Gold, silver, iron ore, chromite, china clay, limestones, corundum, gamet, emery, asbestos, bauxite, fuller's earth, quartz, ochre, fellspar and silica.

Forests: Forests occupy 15.3 per cent land area divided into evergreen, semi-green, moist deciduous, dry deciduous, scrub and thorny species.

Annual Plan (1983-84): Rs. 6,193 million. Outlay (in million): Agriculture: Rs. 994; Co-operation: Rs. 108; Irrigation: Rs. 876 Power Projects: Rs. 1,679; Industry and minerals: Rs. 498; Transport and communications: Rs. 401; Social and Community services: Rs. 1,177; Economic and general services: Rs. 13; Cauvery Basin Projects: Rs. 443.

KERALA

Kerala, the land of rivers with verdant greenery and beautiful lagoons, lies in the south-west zone of India. It has the highest density in population and the highest literacy among the Indian States. Under the States Re-organisation Act of 1956, Travancore-Cochin State and Malabar were amalgamated to form Kerala which came into existence on November 1, 1956. Some territorial adjustments were made with Madras.

CAPITAL: Trivandrum; **Area:** 44.52 sq. kms.; **Population** (1981 census): 513,081.

Area of the State: 38,863 sq. kms.; **Population of the State** (1981 census): 25,403,217.

No. of Talukas: 58; revenue villages: 1,331; Municipal towns: 43; Corporations: 3; *Panchayats:* 1,000.

State Boundaries: The State is surrounded by South Kanara, Mercara and Mysore districts of Karnataka State in the north, Nilgiris, Coimbatore, Madurai, Ramanathapuram, Tirunelveli and Kanyakumari districts of Tamil Nadu in the east and south, and by the Arabian Sea in the west.

State Language: Malayalam.

Districts*		**Area in sq. kms.**	**Population (1981 census) (in million)**
Trivandrum	..	2,192	2.59
Quilon	..	4,620	2.81
Alleppey	..	1,883	2.34
Kottayam	..	2,204	1.68
Ernakulam	..	2,408	2.53
Trichur	..	3,031	2.44
Palghat	..	4,392	2.04
Malappuram	..	3,674	2.40
Kozhikode	..	2,314	2.24
Cannanore	..	4,958	2.80
Idukki	..	5,061	0.97
Wynad	..	2,126	0.55

* A new district Pathanamthitta was formed on Nov. 1, 1982.

Major Cities: (Over 100,000 population)

Name		Area in sq. kms.	Population (1981 census)
Cochin	..	82.00*	482,722*
Trivandrum	..	44.52	513,081
Calicut	..	30.61	394,440
Alleppey	..	46.62	169,934
Quilon	..	16.34	137,927
Palghat	..	—	111,220

*Combined area and population for Cochin-Ernakulam-Alwaye Town group.

AGRICULTURE

The per capita extent of cultivated area is 0.09 hectare (1981 census).

Food Crops: Rice, jowar, ragi, tur, sugarcane, pepper, chillis, ginger, turmeric, cardamom, arecanut, mango, citrus fruits, banana, cashewnut, tapioca, sweet potato and onion.

Main Crops are paddy, coconut, tapioca, arecanut, pepper, turmeric, ginger, sugar, tea, coffee, rubber etc.

Dairying: At present there are seven dairy plants in operation. The location, capacity and daily production (in litres) respectively are: Trivandrum 40,000, 28,000; Ernakulam 50,000, 20,000; Palghat 6,000, 7,000; Alleppey 3,000, 5,000; Cannanore 10,000, 8,000; Calicut 6,000, 8,500; and Kottayam 6,000, 2,000.

Poultry: With a view to promoting poultry breeding 476,000 chicks were hatched and distributed through the departmental farms during 1977-78. The egg production in the departmental farms during the year stood around 2.27 million.

Fisheries: See chapter on Fisheries.

Forests (1981): Total area under forests as on 31-3-1982 was 11,229 sq. kms. which formed 29 per cent of the geographical area. Out of this area, State forests occupied 9,335.9 sq. km. and vested forests 1,893.1 sq. km. Till the end of March 1982, man-made forests covered 146,900 hectares which consisted of teak (76,653 hectares), eucalyptus (34,289 hectares), soft wood species (23,567 hectares), cashew (5,085 hectares) and other species (7,306 hectares).

INDUSTRIES

As on 31st December 1981 there were 9,106 registered working factories. The number of registered small scale industrial units during 1981-82 was 21,977.

Joint Stock Companies: As on March 31, 1982 there were 2,061 companies of which 493 were public companies and 1,568 private companies.

Paper Factory: A new packing paper manufacturing factory is being established at Kollakadavu in Alleppey dist. under private sector. The cost is estimated at Rs. 90 million and the factory is expected to produce 15,000 tonnes of pulp and 30,000 tonnes of wrapping paper annually.

Handloom Industry: The total number of looms in the State stood at 0.1 million in 1982. The production in the co-operative sector was 33 million during 1981-82. The sales turnover of the apex society increased from Rs. 67.2 million in 1980-81 to Rs. 76.9 million in 1981-82.

INDUSTRIAL DEVELOPMENT AGENCIES (See chapter on 'State Govt. Undertakings').

LABOUR (as on 31.12.1981)

No. of registered factories: 9,484 (excluding 10 defence factories); no. of working factories: 9,099 (excluding 10 defence factories); no. of registered factories which submitted their returns: 4,263; average daily employment in the working factories submitting returns: 179,513; total average daily employment (estimated) in all the registered working factories: 303,588; employed in industries: 291,497; employed otherwise: 12,091; total employment in Public and Private Sector: 303,588; total number of unemployed on the live register of employment exchange: N.A.

EDUCATION

Particulars showing the number of students in schools and educational institutions run by Govt., and private bodies for 1980-81 are as follows:

Number of students under instruction: 5.60 million. Distribution of institutions: High Schools: 1,976; upper primary schools: 2,753; lower primary schools: 6,861; basic training schools: 92.

Colleges and Student Enrolment (1981-82): Arts and Science Colleges (including Sanskrit colleges and Evening colleges): 161; Government colleges including Evening colleges: 38; Teachers: 2,016; Students: 44,998; Private Colleges: 123; Teachers: 9,421: Students: 223,731; Government Training colleges: 4; Teachers: 52; Students: 669; Private Training colleges; 15; Teachers: 128, Students: 2,127; Music colleges: 3; Teachers: 106; Students: 856.

Universities: Kerala Agricultural University, Mannuthi, Trichur; University of Kerala, Trivandrum; Gandhiji University, Kottayam; University of Calicut, Calicut; Cochin University, Thrikkakara, Cochin.

PUBLIC HEALTH (31-3-1982):

Hospitals 145; beds 23,203; Health centres 172; beds 2,142; TB centres and clinics 10; beds 118; MCH centres 5; beds 942; dispensaries 616; beds 1,431. Total No. 968; beds 30,254.

COMMUNICATIONS

Kerala has 23 postal divisions, 2 RMS divisions, 2 postal stores depot units and one mail motor service unit. As on 1.4.1982, 4,634 post offices were functioning. These comprise 51 head offices, 2,099 sub-offices, 2,278 branch offices and 206 mobile post offices.

Motor Vehicles (as on 31.3.1982): Goods vehicles 27,664; stage carriages: 9,765; taxi cabs: 21,569; motor cars: 60,412; Jeeps 9,030; motor cycles: 70,468; auto-rickshaws: 12,727; tractor-trailers: 1,946; total: 220,732.

State Transport (as on 31.3.1982): No. of buses: 3,468; no. of lorries: 15; other vehicles: 150; no. of routes: 3,980; route kms.: 18,469; no. of employees: 30,000; average no. of passengers carried per day: 2.1 million.

Roads (as on 31.3.1982): The State had a total road length of 95,580 kms., which included National Highways (839 kms.); Roads maintained by the P.W.D.: 17,668 kms.; Panchayat Roads: 68,008 kms.; Corporation Roads: 1,239 kms.; Municipal Roads: 3,822 kms. (as on 1.4.1981); others: 2,519 kms.

Railways: The total length of line is 916 kms. of which 803 kms. are broad gauge and 113 kms. metre gauge.

PRESS

Leading Dailies (1982): Major newspapers in Malayalam: 'Chandrika', Kozhikode; 'Deepika', Kottayam; 'Desabhimani', Kozhikode and Cochin; 'Express', Trichur; 'Kerala Kaumudi', Trivandrum; 'Malayala Manorama', Kottayam, Kozhikode and Cochin; 'Mathrubhumi', Kozhikode, Cochin and Trivandrum.

GENERAL

The draft Sixth Plan, approved by the Government accords primacy to generation of optimum employment opportunities in the economy. The Rs. 41,000 million Plan envisages an investment of about Rs. 20,000 million by the state, Rs 16,000 million through Private Sector and Rs. 5,000 million as direct Central investment during the Plan period of 1980-85.

Annual Plan: The outlay for 1983-84 Annual Plan is Rs. 3,200 million.

Rivers: The rivers provide an extensive system of inland waterways of great commercial importance. The longest are the Bharatapuzha, 267 kms. and the Periyar, 228 kms.

Other chief rivers are Valapattanam, the Chaliyar, the Kadalundi, the Chalakudi, the Pampa, the Achan Koil and the Kallada.

Fresh Water Lakes: Enamakkal, Manakkodi, Vellayani, Sasthankotta and Vembanad.

Mineral Development: A detailed investigation of mineral resources is being made for graphite, lime-shell, lime stone, magnesite and brick and tile clays.

The Kerala Mineral Exploration and Development Project established with the assistance of U.N.D.P. started functioning from April, 1977.

LAKSHADWEEP

(Union Territory)

The Laccadive, Minicoy and Amindivi islands, an archipelago of 27 coral islands in the Arabian sea, off Kerala, constitute the smallest union territory. Formerly part of Madras, they became Union territory on November 1, 1956.

THE Lakshadweep group of coral islands lying between 8^0 and 12^0 north latitude and 71^0 and 74^0 east longitude in the Arabian sea, 320 kms. off the west coast of Kerala constitute the smallest Union Territory.

Headquarters: Kavaratti island; **Area:** 3.6 sq. kms.; **Total Area of the Territory:** 32 sq. kms.; **Total Population** (1981 census): 40,249 (Males: 20,377, Females 19,872); **Decennial Population growth rate** (1971-81): 26.49 per cent; **Density:** 1,257 per sq. km.; **Sex ratio:** 976 females for 1,000 males; **Literacy:** 54.72 per cent.

Administration: The head of the administration is the Administrator, appointed by the Union President. The Collector-Cum-Development Commissioner is in overall charge of the development activities and law and order.

The entire Territory has been divided into 4 tehsils each under a Tehsildar, with headquarters at Andrott, Kavaratti and Amini Islands and with a Deputy Collector at Minicoy.

Total No. of Islands: 27; **Uninhabited:** 17. The area and population (1981 Census) of the inhabited islands is as follows:

Island	Area in sq. kms.	Population
Agatti	2.7	4,111
Amini	2.6	5,367
Andrott	4.8	6,812
Bitra	0.1	181
Chetlat	1.0	1,484
Kadmat	3.1	3,114
Kalpeni	2.3	3,543
Kavaratti	3.6	6,604
Kiltan	1.6	2,375
Minicoy	4.4	6,658
Total	26.2	40,249

AGRICULTURE

Coconut is the main crop. The average production of nuts per hectare per year is 0.0079 million from a total cultivated area of 2,785 hectares.

Fruits like banana, papaya, guava, sopota and some citrus varieties and drum-stick, chillies, tomato, brinjal, sweet potatoes are grown as inter-crops.

Dairy: There is one dairy farm at Kavaratti and one dairy demonstration unit at Minicoy.

Poultry: There is one Regional Poultry Farm at Kavaratti and seven poultry demonstration units one each at Amini, Andrott; Minicoy, Kadmat, Kalpeni, Agatti and Kiltan.

Fisheries: There are 293 mechanised boats of which 263 were issued to fishermen on a subsidised hire-purchase system. A unit for canning tuna fish was set up at Minicoy in 1969. The number of cans produced during 1981-82 was 51,976. An ice factory and a cold storage were also constructed at Minicoy.

POWER

Electricity: All the ten inhabited islands have been electrified. The total installed capacity of the power houses is 2,221.40 (as on 1982-83) KW and length of distribution line is 118 KM.

INDUSTRIES

Coir making, Oil extracting, handloom, mat weaving, hosiery knitting and canning are some of the small industries. One handicrafts co-operative society and two handicraft training centres function at Kavaratti and Kalpeni respectively. Three coconut husk defibering units—one each at Andrott, Amini and Kadmat, are also operating.

EDUCATION

There are 50 schools including 8 high schools with 11,965 students and 486 teachers. To encourage education of girls, separate and free facilities have been provided. On July 15, 1972, the Jawaharlal Nehru College (Affiliated to Calicut University, Kerala), was inaugurated and had a student strength of 365 during 1982-83 with 16 teachers.

PUBLIC HEALTH

There are 7 primary health centres and 2 hospitals at Kavaratti and Minicoy and one first aid centre at Bitra and two ayurvedic dispensaries—one at Androth and the other at Kavaratti. One of the achievements was the control of communicable diseases like leprosy and filaria. There are health inspectors in all the islands and medical aid is free. Acute cases are brought to the mainland and given free treatment. The total bed-strength of all the hospitals and primary centres is 120 (3 per 1,000 population).

COMMUNICATIONS

The motor vessel of the Administration, M. V. Laccadives was launched in 1968. Since 1970 the Shipping Corporation of India has started running an all-weather ship M. V. Amindivi for the administration. Another all-weather ship M. V. Bharat Seema started plying from July onwards. One motor launch, M. L. Bitra, maintains inter-island services.

There are 10 post offices, 9 wireless stations and 5 telephone exchanges. A radio-telephones service between Kavaratti and the mainland (established in 1972) and between Chetlat and Bitra islands is also available. A satellite communication station has been established at Kavaratti in 1980. Another station is being set up at Minicoy island.

GENERAL

Annual Plan (1982-83): The Planning Commission has approved Rs. 5.77 million for the Annual Plan.

Tourism: Bangaram, an uninhabited island, has been developed into a tourist resort with facilities for water sports. A Consortium consisting of Air India, Shipping Corporation of India, Hotel Corporation of India and Travel Corporation of India are bringing foreign tourists for a ten-day stay during the fair season. The resort has accommodation for 32. However tourism has further developed during 1982-83. 326 home tourists had visited the islands in 1982-83 (February 1982 to March 1983).

MADHYA PRADESH

Madhya Pradesh was formed under the provisions of the State Reorganisation Act, 1956, on November 1, 1956. Being situated in the centre of the country, it is sometimes called the "heart" State of India. It comprises the 17 Hindi-speaking districts of the former State of Madhya Bharat (except the Sunel enclave of Mandsaur district), the former State of Bhopal, Vindhya Pradesh, the 14 Mahakoshal districts of the central provinces and the Sironj sub-division of Kotah district.

CAPITAL: Bhopal; **Area:** 71.20 sq. kms.; **Population:** 895,815.

Area of the State: 443,459 sq. kms.; **Population of the State:** 52,138,467 (1981 census); **Literacy** (1981 census): 27.8 per cent; **Sex Ratio:** 943 females per 1,000 males; **Density** (1981 census): 118 per sq. km.

DISTRICTS: The headquarters of the districts are the towns of the same name except Surguja which has Ambikapur as its headquarters.

Total No. of Districts: 45; No. of Tehsils: 190; No. of Municipal Corporations: 6; No. of Municipalities: 556; No. of Notified areas: 19.

State Boundaries: The State is bound by Uttar Pradesh in the north, Bihar in the north-east, Orissa in the east, Maharashtra in the south and Gujarat and Rajasthan in the west.

Major Cities (Over 100,000 population)

Name		Area in sq. kms.	Population (1971 census)
Indore	..	55.84	572,622
Jabalpur	..	132.09	533,751
Gwalior	..	65.00	406,755
Bhopal	..	71.29	392,077
Durg-Bhilainagar	..	103.90	245,333
Ujjain	..	70.48	209.118
Raipur	..	25.17	205,909
Sangor	..	33.74	154,811
Bilaspur	..	31.34	130,804
Ratlam	..	12.95	118,625
Burhanpur	..	10.46	105,349

Wah! Wah! Wah!, the cable-line workers sang lustily in a chorus in Marathi as they laid the historic link-up submarine cable between Bombay and Europe via Aden on February 7, 1870, at the horse-shoe Backbay. It was on the Great Eastern Flagship, which was accompanied by two other ships, that Martin Wood, Editor of The Times of India, raised the toast to the progress & prosperity of Bombay over 100 years ago. A rare picture. Courtesy: Karol (The Ocean Telegraph To India: J. C. Parkinson)

Metamorphosis of Bombay

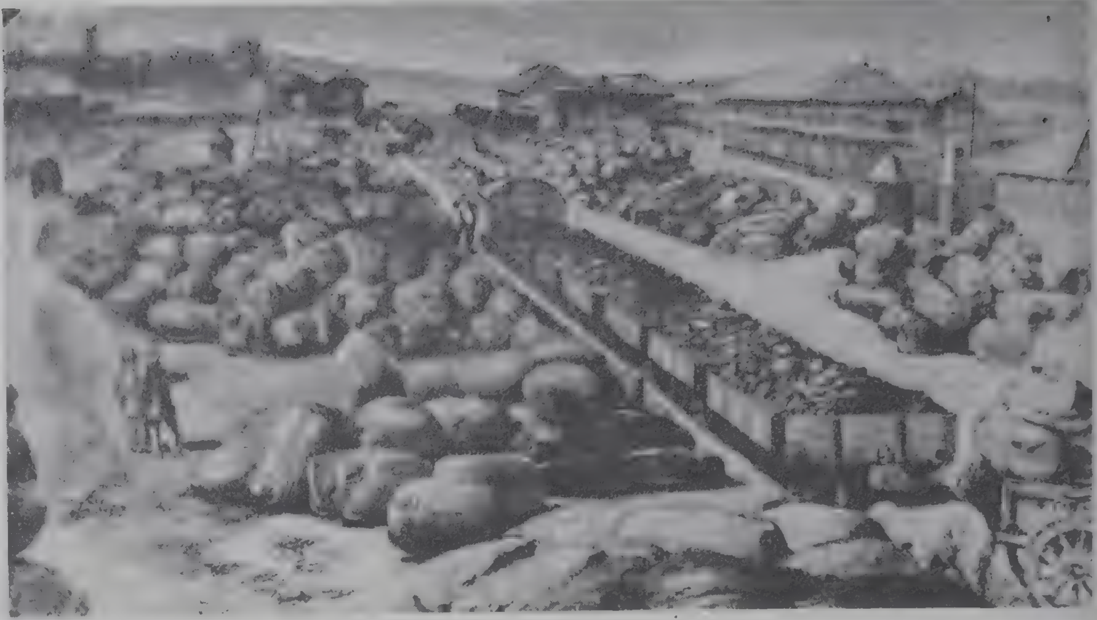
by Alfred D'Cruz

TODAY'S press headlines could be tomorrow's history. Who, what, where, when. For *Times* present and *Times* past are both present in *Times* future, and *Times* future contained in *Times* past.

Yes, the Old Dame of Bori Bunder, born in 1838 and cradled in the Bombay Fort (1670), has seen it all! A mute witness to the metamorphosis of Bombay. And summons rememberance of things past. Indeed, the heterogeneous heritage bears the imprint of several cultures. Mentioned in the *Mahabharata* and by Greek and Roman historians, Ptolemy termed it *Heptanesia.* Once a swampy, rocky conglomeration of 30 fishing islands, only the seven big islands are remembered today: Colaba, Bombaim, Mazagaon, Varel (Worli), Varella (Wadala), Syvon (Sion) and Mahim.

Left : The old office of The Times of India sandwiched between St. Thomas's Cathedral (1718) and the main fashionable gate, Church Gate (1670), the site of the present Flora Fountain (Hutatma Chowk) in Fort (1670).

Right: The modern office of The Times of India, crowned with Saracenic cupola embroidered with lotus petals, was occupied on January 1, 1902.



Right: The old wooden, ramshackle railway station at Bori Bunder prior to 1888. Cotton bales await transportation. The name, Bori Bunder, owes it origin to a wharf built on a rocky promontory which was used by country-boats to load and unload goods. The original Mumbadevi temple, which was demolished in 1737 by the British to enlarge their fort, stood at the present site of VT Station. Bombay derived its name from Mumba Devi, the goddess worshipped by Kolis, the original inhabitants of Bombay. A Bombay merchant, Pandu Sona, later erected a new temple in Bhuleshwar. Courtesy: CR (The Illustrated London News).

The first gigantic reclamation in 1862 linked the seven islands to form a single compact land mass of 273 sq. metres. Retrospectively, take a look at *Mumbai* in 1661. Idyllic greenery enraptures the eye; the Arabian Sea staring you in the face. Hardly 10,000 Agris and Kolis on the islands tending ricefields or out fishing.

The "poor little islands", as Samuel Pepys put it in 1633-1703, were gifted to Charles II of England in a marriage treaty with Infanta Catherine Braganza of Portugal on June 23, 1661. On March 27, 1668, he was only too happy to hand over Bombay to the East India Company for an annual paltry payment of just £10!

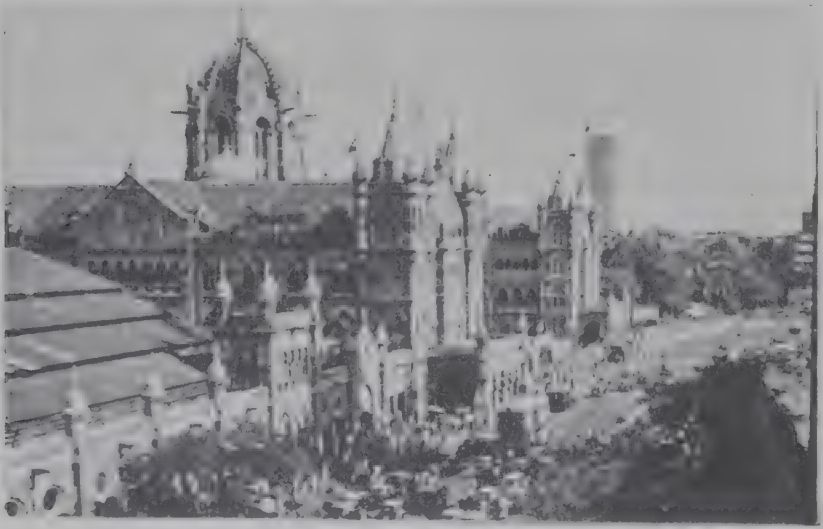
Old Bombay of the seven islands, like ancient Rome of the seven hills, rose from mud and rubble. Three centuries. Then and now. The island city, exploding with over 8.2 million people, now transformed, the face still changing. But life goes on. Busy and bustling.

Commercially, the famed Cottonpolis spun out a throbbing metropolis, the textile industry making it the Manchester of the East. The harbour, the two railway terminii, the airport, the multifarious industries, the Bhabha Atomic Research Centre, modern telecommunications and the educational and technical institutions all adding up to make it one of the 10 great cities of the world. Indeed, *The Times*, London, hailed the remarkable strides as "one of the brightest episodes in the modern history of India."

Yonder, stands proudly the Gateway of India (1911-1924) where mingle people and races from all the lands.

Significantly, over 100 years ago on February 7, 1870, a historic event took place in Bombay: the shore-end of the submarine ocean telegraphic cable was laid at the rocky horse-shoe Backbay, linking Bombay with Europe *via* Aden and Suez.

Martin Wood, Editor of *The Times of India*, observed that the engineering feat was an important chapter in Bombay's history. The press had become so dependent on the telegraph that one could scarcely get on without the other. The Suez Canal, opened in 1869, had brought Europe closer to India and the cable would speed up communications. J. C. Parkinson, a British writer, said that bright days were ahead.



Bottom: The imposing Venetian-Gothic Victoria Terminus costing over Rs. 27 lakhs which was under construction for 10 years (1878-1888). Designed by F. W. Stevens, he was assisted by Sitaram Khanderao and Madhawrao Janardan.

Right: The only remnant of Fort George (1670) seen today in St. George's hospital compound.

The swinging 1860s and 1870s were turning points in Bombay's history. From 1861 to 1865, Lancashire was in the doldrums for it had been starved of urgent cotton stocks, being badly hit by the American Civil War. Britain desperately turned to Bombay. Cotton thus brought booming wealth to Bombay and with it the dawn of a new era.

It became the biggest cotton export centre in the world. Maclean in his *Guide to Bombay* recorded that the coffers were enriched by 75 million sterling.

The people of all communities in Bombay in a magnanimous and humanitarian gesture readily responded to the appeal of one of its most prominent citizens, J. Sunkersett, and remitted £16,000 to the Lord Mayor of London to help Britons in distress.

Cotton was such a money spinner that the people ripped open even their mattresses and sold the cotton. Fifty-four cotton mills were in full swing. Land prices zoomed. The face value of a single share priced at Rs. 4,000 and floated by the Backbay Reclamation Company fetched the fantastic sum of Rs. 25,000. Premchand Roychand, the financial wizard, was the cotton king. Indian entrepreneurs took a big leap forwards when by their own capital and skill they set the ball rolling in establishing the undiluted and unique cotton textile industry. Some of the inventions of the Industrial Revolution reached Bombay almost as fast as they entered the British & European markets, but they hit the handloom and handicrafts sectors whose traditions stretched to centuries and whose reputation for expert craftmanship was widely appreciated.

The Times of India's advertising media was utilised (April 23, 1862—August 7, 1865) by Bombay-based overseas British firms to publicise the textile machinery.

All these factors stimulated the spectacular growth of the industry. The mills attracted the first big wave of migrant labour from the Konkan, the Deccan, Telengana, Rajasthan and Gujarat and the population shot up from 2,36,000 to 5,66,119. The railways too provided many jobs. The first train was on the rails from Bombay to Thana on April 16, 1853 It was the talk of the town, with the band playing and crackers fired. *The Times of India* reporter said: "The steam-driven train that started from beneath the wall of Fort George at Bori Bunder goes forth conquering and to conquer!" The first steamer to be built in Bombay was "Hugh Lindsay" which was launched on October 14, 1829. Horatio Nelson was a midshipman on HMS "Sea Horse" which was attended by artificers under the direction of Lowjee Wadia. The Sassoon Dock was opened in 1875, the Victoria in 1888 and the Hughes and Alexandria docks (now called Indira docks) in 1914. The docks also absorbed many hands. In 1736, the first dock was

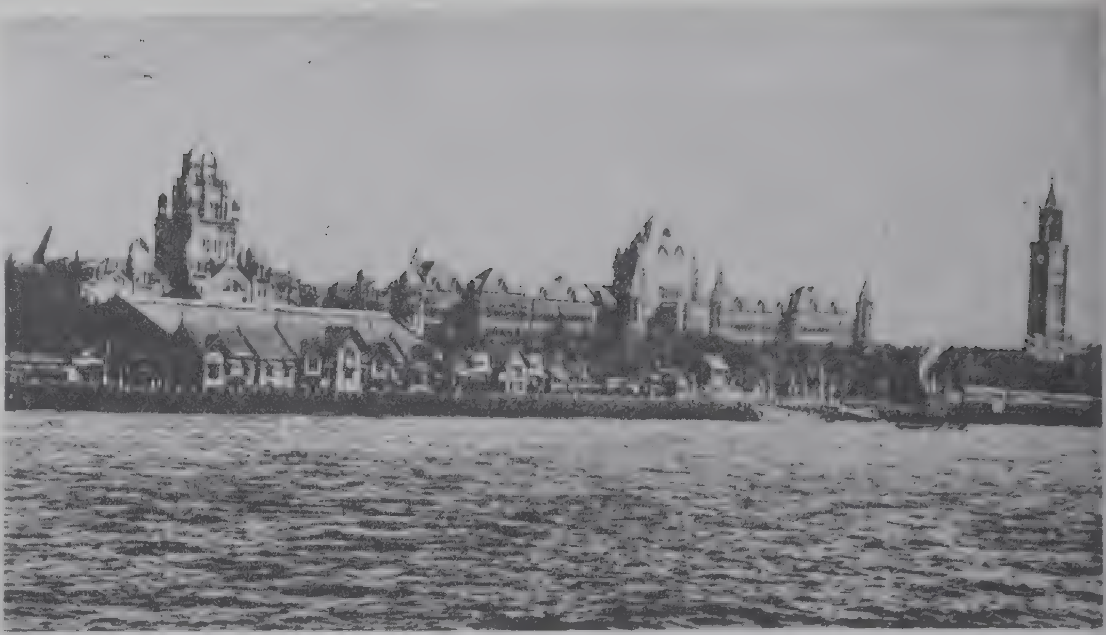
Below: The magnificent Town Hall (1821-1833) facing Bombay Green. Bombay Green was a popular rendezvous for the cosmopolitan people of Bombay. Bombay Castle (1548-1626) is at the rear. The Town Hall was designed by an Indian architect, Andre Constancio Augustus, who won a prize for it from Lord Clare. The obituary inscription on his gravestone said it was his "creative monument."

Bottom: The Town Hall as it appears today with the new Reserve Bank skyscraper in the background.

Right: Flora Fountain (1865) now called Hutatma Chowk (Martyrs' Memorial) was built in appreciation of the services rendered to Bombay by Bartle Frere.

Bombay's cosmopolitan outlook so impressed the French historian Diniz Cottineau (Nov. 9, 1827) and the German scholar, Leopold von Orlich (Aug. 13, 1842) that they recorded it in their books.

Right: The Gothic architectural buildings: the old Secretariat (1872), the Rajabai Clock Tower and University Library (1878) the High Court (1878), the Central Telegraph Office (1874) and the Western Railway HQ "all in a line" seen kissing the shore-line before reclamation of Backbay. The railway train is seen steaming in at Church Gate from the old Colaba Railway Station in 1876. Courtesy: WR



Below: Chowpatty, called Lakdi Bunder in 1864, at the foot of Malabar Point (Malabar Hill) where tigers were seen even in 1783.

Bottom: The once lush greenery at Malabar Hill has gone, giving way to a jungle of skyscrapers.

Jawaharlal Nehru and Sarojini Naidu were always fascinated by Bombay. In a happy mood they once both agreed to jot down in one sentence on separate notepapers what made Bombay what it is. Surprisingly, both wrote down the very same line: Unity in diversity.

completed which is associated with Bomanjee Lowjee Wadia, whose family connections with naval architecture extend to six generations.

Bartle Frere (1860-1890) set the pace for building modern Bombay. He demolished Bombay Fort in 1863 and thereby opened wide spaces for development. He planned the Gothic structures "worthy of Bombay's wealth and status" on the Backbay seashore (1864) in what is now the reclaimed Oval. Backbay Reclamation was completed in 1920. The towering buildings were constructed by the Telugu master-builders, Nagoo Sayaji assisted by Ellapa Balaram. The construction of VT (1888), GPO (1910), the Municipal Corporation Building (1893), the Museum (1922) and the docks, bridges and roads were the work of the Telugu Kamatis. Unwept, unhonoured and unsung. Their physical endurance was matched by their dextrous hands which carved out ornamental designs. Shankar Sayanna Parsha in *Telugu Samachar, (Makar Sankrant, 1925)* and Manohar Keluskar have highlighted the contribution of the Kamatis to Bombay. Their ancestors had migrated to Bombay from Hyderabad in 1665. The construction of the Dwarkeshwar temple (1832) at Mahalakshmi & Frere Bunder was supervised by a remarkable Telugu woman, Korba Sayemba. But the ramifications went deeper. The workers became aware of Britain's strangulation of the economy and were awakened to trade unionism and political consciousness. Lovat Fraser, editor of *The Times of India*, in a blistering editorial entitled: "Bombay's Slaves", called for a Factory Act.

Jawaharlal Nehru aptly pinpointed the wider implications of economic exploitation when he said that the history of cotton and of textiles was not only the history of the growth of modern industry in India, but also in a sense, the history of India itself during the past 100 years.

Interestingly, once Vithalbhai Patel, the intrepid nationalist, presiding at a burn-foreign-goods meeting during the Quit India move-

Top: Bombay harbour with sailing ships and rowing boats with Bombay Castle in the background in 1791.

Below: The Gateway of India (1911-1924) with the Taj Mahal Hotel built by Jamshetji Tata in 1904 and the modern addition of the multi-storey Taj Inter-Continental.

Narayan Chandavarkar addressing the Royal Asiatic Society's centenary celebrations in Bombay in 1905 paid glowing tributes to the select *Saptarshis* (seven sages). They were: Balshastri Jambhekar, Dadabhai Naoroji, R. G. Bhandarkar, M. G. Ranade, Pherozeshah Mehta, K. T. Telang and N. M. Parmanand. Dedicated men all. Ardent advocates of learning.

Bottom: Medows Street in the heart of the business area in the Fort area over 100 years ago. Nearby was Bruce Street, now called Homi Mody Street. Roger Faria, a millionaire, was the first Indian merchant-prince of Bombay to have had collaboration with an English firm. It was called Bruce, Faria & Co.,

ment was hackled by a British officer. He said: 'You are presiding at a burn-foreign-goods bonfire, but you are smoking a foreign cigar.' "Look well." Vithalbhai shot back: "I am not smoking it, but only burning it!"

As the years rolled on and industry and trade rapidly gained momentum, Indian merchants imbued with the *Swadeshi* spirit and mounting nationalism, set up the Indian Merchants' Chamber on September 7, 1907. Among the founding fathers were Munmohandas Ramji, Purshottamdas Thakurdas, D. Wacha & I. Rahimtoola. The Bombay Chamber of Commerce (1836) catered mostly to European firms. Another important organisation, the Bombay Association (1852) functioned under the leadership of J. Jeejeebhoy. The J.J. School of Art (1857), the first and foremost in the country, and the J.J. Hospital owe their existence to his generosity. On December 28, 1885, the Indian National Congress was born.

As Bombay entered the 20th century, newspapers gained a new dimension for the Congress set in motion dynamic nationalist forces. The *Kesari* of Tilak from Poona and *Rast Goftar, Durpan* and *Induprakash* of Bombay roused national consciousness. Newspapers then introduced in their columns political speeches, political matter and political editorials.

Birth Of "Times"

Historically, the Charter Act of 1834, knocked the bottom of the East India Company, depriving it of monopoly control over business and trade. The imperial eagle could no longer muzzle the press for it had its wings clipped, its teeth out. Robert Grant arrived in the nick of time as Governor of Bombay on March 12, 1835. He was keen on having an independent paper. His initiative clicked. Some prominent men decided to start a biweekly called *The Bombay Times* and *Journal of Commerce* costing eight annas. A joint company with 16 European shareholders, the only Indian being Jamsetjee Jeejeebhoy, was established. The proprietors were two barristers, H. Howard and M. Montriou, Dr. Mackey, a surgeon, and M. Murphy, a prominent orientalist. Dr. J. E. Brennam was appointed the first editor and the first issue was published on October 3, 1838, the forerunner of *The Times of India*. In 1840, Brennam was out. George Buist, founder of the Bombay Natural Society, came in. He converted the paper into a daily and focussed attention on local news. But the Indian Sepoy Mutiny of 1857 signalled the exit of Buist for his inopportune writing, leaving the door open for a dynamic journalist, Robert Knight. The right man for the right job at the right time. Wisely, *Bombay Telegraph, Bombay Standard* and *Courier* teamed up with *The Bombay Times* and on May 18, 1861, *The Bombay Times* took on a new historic masthead: *The Times of India*.

Knight assured the eager readers that the paper would mirror all the events. Right enough. It did. Shortly afterwards he left for

England on a business visit, but on his quick return he found his business partner, Mathias Mull, riding the high horse. Dejected that the paper he had nursed so tenderly was not doing well, he left for Calcutta and launched the *Statesman*. Knight was followed by Louis Jennings as editor, who later became editor of *The New York Times*. Martin Wood succeeded him, Curwen and Kane coming next. Thomas Bennett, assistant editor of *The Bombay Gazette*, a close friend of Curwen and Kane, joined *The Times*. Curwen and Kane, who, by then, had become joint editors and proprietors of the paper, had made a provision in their will that their share after their death should be offered to Bennett. So when Curwen and Kane died the firm fell into the hands of Bennett who became the editor-proprietor. He immediately sounded F.M. Coleman, a master printer in Britain. He rushed to Bombay. Bennett was determined to make *The Times of India* both a financial and journalistic success. So they converted the firm into a joint stock company called Bennett, Coleman & Co. Ltd. They invited two reputed British journalists, Lovat Fraser and Sir Stanley Reed, to join *The Times*.

Lovat Fraser conceived the idea of Special Correspondents for wide coverage and Sir Stanley Reed followed up by appointing an Indian, Dr. Francis Braganza-Cunha of Sorbonne and Moscow Universities, as *The Times of India* correspondent for European affairs for a brief period. Dr. Braganza-Cunha was the secretary and interpreter of Rabindranath Tagore during his European tour in 1923.

Finger On Public Pulse

One incident brought out the work and worth of Bennett. During the dreaded plague in 1896, Bennett in an editorial ridiculed Dr. Accacio Viegas for creating a scare of a bubonic plague epidemic. Bennett, a stickler for accuracy, first deputed a reporter to check the facts and later went out himself to assess the situation. Shocked at the mounting toll number, he wrote another editorial in retraction of his hasty judgement & praised the round-the-clock medical relief by Dr. Viegas, Dr. Bhatavdekar, Dr. Jan Mohammed and Dr. S. Surveyor. Bennett, who had his finger on the pulse of the people, recalled with dignified concern what *The Times*, London, had once said: "If we do not represent the opinion of the people, we are nothing." The Improvement Trust, which functioned for 30 years, was set up to ensure public health, widen roads and improve sanitation. It gave way to the Bombay Municipal Corporation which was established by the Act of 1872. Dassabhai Framji was the first elected Indian Chairman in 1875. As with every passing year, *The Times of India* circulation showed a steady climb, Bennett selected the fast developing and convenient site at Bori Bunder for a new building & secured land on a 99-year lease. The imposing building was designed by Gostling and Fritchley and constructed by a Telugu master-mason, Nana

Top: Hornby Vellard named after Governor Hornby who constructed a controversial causeway linking Mahalakshmi and Worli in 1784.

Below: The changing scene at Mahalakshmi and Worli today, with the sprawling race-course, the Sardar Patel Sports Stadium and the growing number of skyscrapers.

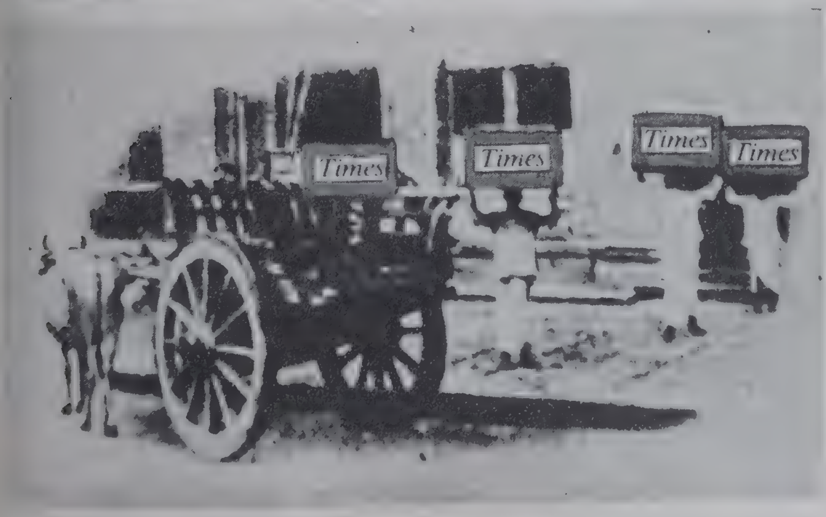
Bottom: The rectangular multi-storey Discovery of India Museum at the Nehru Science Centre at Worli which will mirror the heritage of India.

Lokmanya Tilak (1856-1920) awakened national consciousness among the Bombay textile workers. His famous words during his trial at the Bombay High Court ring down the corridors of time:"In spite of the jury's verdict, I maintain I am innocent. There are higher powers that rule the destiny of man and nations. It may be the will of Providence that the cause which I represent may prosper by my suffering than by my remaining free."

Right: Phydonie in 1874, which at the high tide was swept by sea-waves, with its horse-driven tram-car, bullock-carts and gas-lamp (1839). The quaint old houses were part of a typical scene in old Bombay.

Below: The remarkable change in the skyline at Worli with the dome of the Nehru Planetarium and the cluster of skyscrapers clearly visible. A distant dim view of the TV tower too.

Bottom: The dak editions of The Times of India *being carried in trunks and loaded on bullock-carts to be dispatched by train from the old premises of* The Times of India.



Raju Babaji, and his son in 1902. Babaji died in 1931 at the age of 102. Once the building was completed and new machinery installed, Bennett handed over the editorship to Lovat Fraser (1896-1907) who, in the words of Lord Curzon, made *The Times* "the best paper in Asia." Sir Stanley Reed (1907-1923) stepped into his shoes as editor, followed by S. Sheppard (1923-1932) and Sir Francis Low (1932-1948). Then Ivor Jehu walked in. Frank Moraes was the first Indian Assistant Editor, then Deputy Editor and Editor from 1949 to 1957. K. Gopalaswami was the first Indian editor. In 1946 R Dalmia acquired the paper which passed into the hands of Shanti P. Jain. Girilal Jain, former Special Correspondent in Pakistan and London, is the current editor. He took over from Sham Lal, who was preceded by N. J. Nanporia.

In 1981, *The Times of India* published from Bombay, Delhi and Ahmedabad was ranked first among all the multi-edition dailies in India with a circulation of 522,900 copies. The modern, sophisticated, computerised photocomposing units will ensure the growing widespread readership of a better and brighter newspaper enhancing the dignified high standards befitting one of the 50 best papers in the world today.

In a book published in the U.S., *The World's Great Dailies,* the newspaper was ranked high for its intellectually-oriented "quality", impartiality & for promoting secular issues and democratic values.

Dadabhai Naoroji
(1825-1917)

Jugonnath Sunkersett
(1803-1865)

Mahadev G. Ranade
(1842-1901)

J. Jeejeebhov
(1783-1859)

John Wilson
(1804-1875)

Men make cities and cities men. In the developing decades of the last century, Bombay's cosmopolitan intelligentsia and dynamic enterpreneurs nursed by goodwill and tolerance stamped it with a special character. That shaped its destiny and made it what it is: *Urbs Prima in Indis*.

Makers Of Bombay

HISTORY is the biography of great men. And so it is that the united impact of the pioneers on men and matters made history. Without them, nothing.

Fresh currents of thought ushered in a new social, political, educational and economic order. The Industrial Revolution too made its impact. Significantly, there rose up men of stature, some Sanskrit scholars among them, who assimilated Western education. English gained ground. John Wilson, the European Indologist, and prominent Indians paved the way to establish Bombay University in 1857 and open educational institutions with equal opportunities for men & women. Ranade, Telang and Tyabji, jurists, scholars and reformers, advocated English education. Dadabhai Naoroji was with them. Sir Stanley Reed, editor of *The Times of India*, writing on the Indian scenario in 1897, observed that Ranade's ideals and learning influenced the best minds of his time. Telang, the first Indian Vice-Chancellor of Bombay University, and Elphinstone were among the luminaries who stressed that English, no less important than the vernaculars, was vital for the succeeding generations. Telang achieved fame for demolishing Weber's theory that *Ramayana* was copied from *Iliad*. Tyabji, the first Bombay barrister, pricked the bubble of colonial arrogance. Sunkersett, Jeejeebhoy, Cowasjee Jehangir, Pherozeshah Mehta, Bhandarkar, Mandlik, Wacha, Malabari, Gokhale, Bhau Daji Lad and Lisboa were in the forefront of educational, philanthropic, cultural & civic activities. Among the industrialists were: Nathubhai,Jetha, Roychand, Sassoon, Petit, Godrej, Podar, Goculdas, Tejpal, Currimbhoy, Hirachand and Thackersey. Jamshetji Tata set up the steel industry despite British opposition. Lisboa & Lad were the first top doctors from G. M. College.

Pherozeshah Mehta
(1845-1915)

K. T. Telang
(1850-1893)

David Sassoon
(1849-1926)

Badruddin Tyabji
(1844-1906)

Jamshetji Tata
(1839-1904)

Cowasjee Jehangir
(1824-1878)

Bartle Frere
(1815-1884)

Dinshaw M. Petit
(1823-1896)

Premchand Roychand
(1831-1905)

Morarjee Goculdas
(1834-1897)

Bhau Daji Lad
(1822-1874)

Unwept, unhonoured and unsung are the other citizens whose unseen role has gone unrecorde

Districts	Area in sq. kms.	Population (1981 census)
Balaghat	9,200	1,147,719
Bastar	39,100	1,840,449
Betul	10,100	924,215
Bhind	4,500	969,988
Bhopal	2,763.4	895,815
Bilaspur	19,900	2,952,282
Chhatarpur	8,700	885,843
Chhindwada	11,800	1,232,754
Damoh	7,300	721,107
Datia	2,000	311,640
Dewas	7,000	794,446
Dhar	8,100	1,055,826
Durg	19,700	1,889,923
Guna	11,100	997,025
Gwalior	5,200	1,111,145
Hoshangabad	10,000	1,003,291
Indore	3,900	1,405,904
Jabalpur	10,200	2,192,934
Jhabua	6,800	795,834
Khandwa (East Nimar)	10,700	1,154,830
Khargone (West Nimar)	13,400	1,630,682
Mandla	13,300	1,036,134
Mandsaur	10,300	1,262,296
Morena	11,600	1,301,254
Narsingpur	5,100	649,701
Panna	7,100	539,864
Raigarh	12,900	1,442,041
Raipur	21,251	3,077,728
Raisen	8,400	768,973
Rajgarh	6,200	801,554
Rajnandgaon	11,003	1,166,408
Ratlam	4,900	783,384
Rewa	6,300	1,203,173
Satna	7,500	1,152,209
Sagar	10,200	1,321,163
Sehore	6,272	656,982
Seoni	8,800	809,502
Shajapur	6,200	840,093
Shahdol	14,000	1,343,917
Shivpuri	10,300	865,548
Sidhi	10,500	988,927
Surguja	22,300	1,631,075
Tikamgarh	5,100	736,512
Ujjain	6,100	1,116,270
Vidisha	7,400	783,349

State Language: Hindi. Main languages spoken in the State are Hindi, Urdu, Marathi, Rajasthani, Gujarati, Sindhi and English.

AGRICULTURE

Agriculture provides about 55 per cent of net domestic product of the State, gives employment to 80 per cent of the working population, of which two-thirds are cultivators and the rest are labourers.

The State has about 5.3 million farming families cultivating 18.5 million hectares of land. Marginal farmers with less than one hectare operate 32 per cent of all holdings using only 3.40 per cent of the State cultivable land. Small farmers with holdings between 1 and 2 hectares operate 17 per cent of all holdings on 6.3 per cent of the cultivable land.

Percentage contribution to India's total production of crops is rice 8 per cent, sorghum 17 per cent, maize 9 per cent, small millets 10 per cent, wheat 11 per cent, barley 7 per cent and oil-seeds and pulses 8 per cent.

About 12.3 per cent of the cropped area is irrigated. The gross cropped area is 20.8 million hectares. Food production level which was a mere 8.576 million tonnes in the year 1956-57 has risen to 11.64 million tonnes in 1978-79.

Production of principal crops during 1978-79 in million tonnes: Foodgrains: 11.64; Sugarcane: 0.18; Oilseeds: 0.55; Cotton: 0.297 million bales.

The high yielding varieties programme for paddy, wheat, maize, jowar and bajra covered 3.05 million hectares in 1978-79 and would further expand to cover about 3.690 million hectares in 1979-80.

This is one of the few States where both *Kharif* and *Rabi* crops are grown in substantial areas, though *Kharif* covers a major portion of the total agricultural area. Against a target of 12.1 million tonnes the production of foodgrain in the State during 1980-81 was estimated at 11.8 million tonnes. The State is the highest soyabean producer in the country. In 1969-70 this crop was grown on 600 hectares which shot up to about 400,000 hectares by 1980.

There is a programme to dig 500,000 new wells during the current Sixth Five Year Plan.

World Bank has sanctioned an intensive agricultural extension and research project with a financial outlay of about Rs. 187.7 million. This project has been implemented in 16 districts—Bhind, Morena, Sehore, Balaghat, Badi (Raisen), Mandsaur, Jhabua, Khandwa, Narsingpur, Chhindwara, Bilaspur, Sagar, Chhatarpur, Satna, Gwalior and Hoshangabad. The emphasis in the programme is to reach every farmer and help him to get better yields.

Madhya Pradesh is richly endowed with varying agroclimatic zones suitable for fruits like mango, guava, lemon, orange, banana, papaya, jack fruit and cashewnut.

Agricultural graduates are given incentives to establish their own farms and government allots them land and also arranges for loans of Rs. 10,000 to Rs. 15,000 from banks.

Forests: Protected 80,045 sq. kms.; reserved 84,227 sq. kms.; non-classified 667 kms.; total 164,939 sq. kms.

Varieties of Forests: Sagon 31,346 sq. kms.; sal 37,898 sq. kms.; mixed and other forests 95,695 sq. kms.

In 1977-78, Rs. 28.4 million were proposed to be spent on implementation of forestry and soil conservation schemes including State's contribution of Rs. 8.3 million to the Forest Development Corporation and implementation of Rs. 2.78 million centrally sponsored Tiger Project. Provision for 1978-79 under development scheme was Rs. 36.23 million from the State fund and Rs. 22.0 million from the Centre.

Under the Tribal Sub-Plan schemes, Rs. 14.9 million was proposed to be spent from State Plan funds and Rs. 22.0 million from the Centre.

Veterinary Services: State's cattle population is 40.30 million, out of which 26.25 million are cattle, 5.84 million buffaloes, 7.16 million poultry and 7.69 million sheep and goats, according to livestock census 1977.

Facilities are available for breeding 1.9 million of cows/buffaloes. Each veterinary institution is catering to the need of 20,175 animals.

Veterinary hospitals 655; veterinary dispensaries 1,355; mobile units 45; ambulatory clinics 31; disease investigation labs. (*i*) State level 1; (*ii*) Divisional level 8; (*iii*) District level 10; rinderpest check posts and units 66; serum production centre 1; biological production division 1.

Cattle Breeding: Cattle breeding farms 10; Jersey breeding farms 2; bull rearing farms 3; cattle breeding extension units 376; cattle breeding extn. units in tribal areas 141; H.Q. bull breeding units 57; intensive cattle development projects 13; intensive key village blocks 13; Central semen stations 10; *gosadans* 10; seed multiplication institutes 3; co-ordinated cattle progeny testing centre 1.

Cattle Development: Intensive cattle development projects 13; progeny testing centre 1.

Sheep Breeding: Sheep breeding farms 3; large sheep breeding farm 1; sheep and wool extension units 3; goat breeding farm 1; pig breeding farm 1.

Poultry Development: Egg production average is 210 eggs per bird per year. "RATNA", scientifically developed breed of bird at Government Poultry Farm, Bhopal, is capable of producing 237 eggs per year. Poultry farms 12; co-ordinated poultry breeding farm 1; intensive poultry projects 6.

IRRIGATION & POWER

Irrigation: Some major irrigation projects of the State are Tawa, Mahanadi Reservoir, Bargi, Narmadasagar, Bansagar, Hasdeo-Bango, Upper Wainganga and Madikheda on Sindh. Other completed projects are Chambal, Barna, Ravishankar Sagar, Pairi and Sindh diversion with a total irrigation potential of about 0.5 million hectares.

Under medium and minor irrigation programme, work is in progress on 76 medium and 2,078 minor irrigation projects.

Power: The present installed power generating capacity in the State is 1,300.5 Mw of which 193 Mw is from hydel sources. The thermal power stations are situated at Korba, Amarkantak and Satpura. The only hydro-electric power station in the State is at Gandhi Sagar Lake in Mandsaur district.

At the end of Jan. 1981, 34.2 per cent of the total number of populated villages, covering 54 per cent of the rural population of the State has been electrified.

EDUCATION (1978)

Colleges: Universities: 10; arts colleges: 93; science colleges: 6; home science colleges: 2; agriculture colleges: 7; commerce colleges: 7; music colleges: 3; fine arts colleges: 6; medical colleges: 15; dentistry college: 1; nursing college: 1; veterinary colleges: 2; physical education colleges: 2; social college: 1; colleges of education: 11; university college of education: 1; sanskrit colleges: 8.

Type of schools	No. of institutions	Enrolment (in thousands)		No. of trained teachers
		Boys	Girls	
Higher Sec. Schools	2,026	497	182	25,981
Middle/Sr. Basic Schools	8,681	1,006	366	44,528
Primary/Jr. Basic Schools	52,349	2,538	1,220	91,366
Pre-Primary Schools	426	16	13	482

Technical Education: Pre-vocational training centres: 6; secondary technical schools: 14; fine arts colleges: 6; Kala Niketan: 1; polytechnics (including Polytechnic and Kala Niketan): 23; engineering colleges: 9; Govt. women's polytechnic: 1.

Adult Education: Adult literacy classes are run by the gram panchayats, municipalities and non-official agencies for which they receive grants-in-aid. Besides this the departmental gram sevikas also run literacy classes for women in the rural areas. The scheme of farmers functional literacy classes is being run in 85 projects. Out of these 51 which come under state scheme projects are of 100 centres each and 34 projects are of 300 centres each. 12,809 libraries and 3,050 reading rooms are maintained by the *Gram Panchayats* at village level. Education through entertainment is provided by 26 *Kalapathaks*.

Under the Audio Visual Scheme 51 film units have been established in the state. 45 units are running in 45 districts of the state and 6 additional units have been added in 6 scheduled tribe districts.

Universities: *Ravi Shankar Vishwavidyalaya*, Raipur; *Jiyaji Rao Vishwavidyalaya*, Gwalior; *Vikram Vishwavidyalaya*, Ujjain; *Awadesh Pratap Singh Vishwavidyalaya*, Rewa; *Indore Vishwavidyalaya*, Indore; *Jabalpur Vishwavidyalaya*, Jabalpur; *Saugor Vishwavidyalaya*, Saugor; *Jawaharlal Nehru Krishi Vishwavidyalaya*, Jabalpur; *Bhopal Vishwavidyalaya*, Bhopal; *Indira Sangeet Vishwavidyalaya*, Khairagarh; *Guru Ghasidas Vishwavidyalaya*, Bilaspur.

PUBLIC HEALTH (1982)

No. of hospitals and dispensaries: 765; no. of beds: 19,708; no. of allopathic hospitals: 176; no. of rural hospitals: 23; no. of P.H.C., Add. P.H.C., Mini P.H.C.: 1,205; no. of T.B. hospitals and sanatorium: 8; no. of leprosy homes and hospitals: 8; no. of mental hospitals: 2; no. of medical colleges: 6; no. of dental colleges: 1; no. of Govt. doctors: 4,986 (Allopathic); no. of Govt. ayurvedic doctors: 1,441; no. of nurses, midwives, health visitors in Govt. services: 2,267, 5,614 and 1,127 respectively; total no. of patients treated during 1981: indoor: 723,120 (provisional); outdoor: 30,136,978; *dais* trained: 26,615; health guides trained: 13,746; multi-purpose workers (trained): 11,000.

INDUSTRIES

The number of heavy and medium industries in the State is 198 and the number of small-scale industries in production is 77,361. There are in all 23 textile mills in the State, out of which seven are nationalised.

The major industries in the State are the steel plant at Bhilai, the Bharat Heavy Electrical at Bhopal, the aluminium plant at Korba, the security paper mills at Hoshangabad, the currency printing press at Dewas, the newsprint mill at Nepanagar, Orient Paper Mill at Amlai and Alkaloid factory at Neemuch. The eight cement factories are situated at Kymore, Jamul, Banmore, Satna, Tilda, Neemuch, Akaltara and Mandhar. Other large industries include cable factory at Satna, bakery unit, Indore, leather goods factory, Dewas, explosives factory, Korba, paper and pulp products, Bastar, Vehicle Factory, Ordinance Factory, Gun Carriage Factory and Posts and Telegraphs Workshop, Jabalpur.

Medium scale industries are potteries, sugar mills, strawboard mills, refractories, textile machinery, steel casting and rerolling, industrial gases, synthetics and drugs, biscuit manufacturing, engineering tools, mini-steel plants, chemical fertilizer, insecticides and pesticides, solvent extraction plants, rayon and art silk, dry batteries, gears, electrodes and electrical goods.

Cottage Industries: Main cottage industries with location in brackets:— Handlooms spread all over the State but best developed at Chanderi and Maheshwar; power-looms; silk (Raigarh, Champa, Bilaspur, Surguja); mulberry (Indore, Jhabua, Depalpur, Dhar); fine sarees (Chanderi, Maheshwar, Burhanpur); woodwork and lacquerware (Sheopur, Sabalgarh, Budhni, Rewa, Gwalior); wooden toys (Rewa, Bhopal, Gwalior, Ratlam); softstone (Jabalpur, Chhatarpur); lac (Seoni, Raipur, Bilaspur, Umeria and Rewa); saw milling (Betul, Bhopal, Balaghat, Bilaspur, Raipur, Indore, Jabalpur, Saugor and Mandla); brassware (Balaghat, Chhindwara, Indore, Gwalior, Raipur and Chhatarpur); textile hand printing (Ujjain, Mandla, Morena, Indore, Hoshangabad); diamond cutting and polishing (Panna); papier mache (Gwalior, Ujjain, Indore); zari embroidery (Bhopal); art metalware (Batsar, Betul, Hoshangabad, Satna, Mandla); leather toys (Indore).

Industrial Estates: There is a network of industrial estates in the following places: Indore, Gwalior, Raipur, Bhopal, Jabalpur, Bilaspur, Saugor, Ratlam, Katni, Burhanpur, Satna, Vidisha, Guna, Shahdol, Durg, Rajnandgaon, Bhilai, and Ujjain.

Besides 29 semi-urban industrial estates and 31 rural work sheds have also been constructed.

Industrial Development Agencies

(See chapter on 'State Govt. Undertakings'.)

LABOUR (1980)

No. of working factories: 5,643; no. of workers in the factories: 344,110; no. of mandays lost due to industrial disputes (Public

Sector): 78,366; no. of strikes: 30; no. of mandays lost due to industrial disputes (Private Sector): 235,156; no. of strikes: 75; no. of workers involved: 36,377.

COMMUNICATIONS (as on 31st March 1982)

The M.P. State Road Transport Corporation (Habibganj, Bhopal-462006) operates its services on 1,438 routes with 2,669 buses (including 47 deluxe service & carry on an average 433,000 passengers per day and run 580,000 kms. earning an average daily income of Rs. 1,432,000 with a staff of 18,000.

Roads (1981): Surfaced: 48,379 kms.; unsurfaced: 15,000 kms.; total: 63,379 kms. Length of railway lines: 5,690 kms.

GENERAL

Annual Plan: The total Plan outlay for 1983-84 is Rs. 8,550.00 million.

Panchayats: The State Panchayats Act, 1981 envisages a three-tier system of Panchayats viz. gram panchayats at village level, janpad panchayats at block level and zilla panchayats at district level. The gram panchayats have been relimited now and there are 16,729 gram panchayats and 459 janpad panchayats.

Social Welfare: The Directorate runs 6 destitute women's homes, 2 working women's hostels, 25 tailoring centres, 2 rescued women's homes, 2 after-care homes for boys and girls separately, 1 state institute for orphans, 7 homes for healthy children of leprosy patients, 8 *Balwari-cum-Sanskar Kendras* and 8 foster mothers' homes, 23 juvenile courts, 52 probation services, 24 observation homes, 5 children's homes, 3 special schools, 1 after-care home for children released from children's homes and special schools have been established. Besides 8 schools for blind, deaf and mute, 2 homes for orthopaedically handicapped children, 3 homes for mentally retarded children, 1 workshop for adult deaf and mute and one state level institute for physically handicapped have been established.

Social Security Pension: The state government is paying pension to destitutes above the age of 60 and the handicapped persons at a rate of Rs. 60 per month per person.

Nutrition Programme: Special nutrition programme is conducted in the slum areas of 19 cities for the benefit of children below six, pregnant women and lactating mothers. In 1980-81 this has been started in 17 more new towns. Applied nutrition programme is being implemented in rural areas of 155 blocks. Besides 6 rural I.C.D.S. projects for Singroli, Susner, Seoni, Nagod, Dabhra and Damoh blocks and two urban projects for Jabalpur and Dhar towns are in position. Government of India has sanctioned 2 urban and 8 rural I.C.D.S. projects for the year 1982-83.

Minerals: Minerals are rich in south-eastern and eastern areas of the State. The principal deposits are coal, iron-ore, limestone, dolomite, bauxite, copper, phosphorite, felspar, diamond and manganese ore.

Press: Leading dailies and their places of publication:

Hindi: Nava Bharat—Indore/Bhopal/Raipur/Jabalpur; Nai Dunia—Indore; Deshabandhu—Jabalpur/Raipur/Bhopal; Yugadharma—Jabalpur, Raipur; Swadesh—Indore, Gwalior; Naveen Dunia—Jabalpur; Bhaskar—Bhopal.

English: Hitavada—Bhopal; M.P. Chronicle—Bhopal, Raipur; Tribune—Bhopal.

Important Rivers: The Narmada, The Mahanadi, The Tapti.

Minor Rivers: The Chambal, The Kshipra, The Betwa, The Ken, The Sone, The Indravati.

MAHARASHTRA

Under the Bombay Re-organisation Act, 1960, Maharashtra came into existence on May 1, 1960 with the predominant Marathi-speaking areas of Hyderabad (Marathwada) and Madhya Pradesh (Vidarbha) constituting the new State. Additionally, most of the districts of the former Bombay State continued their links with Maharashtra and cosmopolitan Bombay remained the capital. Historically, Vidarbha is often mentioned in Mahabharata. Maharashtra was once part of the Mauryan Empire. Later, under the dynamic leadership of Shivaji, the Marathas became very powerful and was followed by the Peshwas under whom the Marathas continued to be a powerful force. In course of time, the State settled down as part of the Bombay Presidency under the British administration.

CAPITAL: Greater Bombay. **Area:** 603.0 sq. kms.; **Population** (1981 Census): 8,243,405.

Area of the State: 307,690 sq. kms. **Population of the State** (1981 Census): 62,784,171. **Density:** 204 per sq. km. **Sex Ratio:** 938 females per 1,000 males. **Literacy:** 47.02 per cent.

Districts: 30 (301 *tehsils* including 3 *tehsils* in Gr. Bombay Dist., and 66 *tehsils* newly created after reorganisation of Nagpur and Amravati divisions).

Name of the district	Area in sq. kms.	Population (revised 1981 census)
Greater Bombay	603	82,43,405
Thane	9,558	33,51,562
Raigad	7,148	14,86,452
Ratnagiri	8,249	13,79,655
*Sindhudurg	5,219	7,72,555
Nashik	15,530	29,91,739
Dhule	13,150	20,50,294
Jalgaon	11,765	26,18,274
Ahmednagar	17,048	27,08,309
†Shrirampur	N.A.	N.A.
Pune	15,642	41,64,470
Satara	10,484	20,38,677
Sangli	8,572	18,31,212
Solapur	14,874	25,91,210
Kolhapur	7,633	24,65,431
Aurangabad	9,172	15,88,031
*Jalna	8,656	10,32,157
Parbhani	11,038	16,42,610
Beed	10,624	14,12,430
Nanded	10,502	17,49,334
Osmanabad	7,510	10,29,712
*Latur	7,304	12,93,442
Buldana	9,661	15,08,777
Akola	10,575	18,26,952
Amravati	12,212	18,61,410
Yavatmal	13,584	17,37,423
Wardha	6,310	9,26,618
Nagpur	9,931	25,88,811
Bhandara	9,213	18,37,577
Chandrapur	10,490	14,18,306
*Gadchiroli	15,433	6,37,336

(*Sindhudurg and Jalna have been formed in May 1981 and Latur and Gadchiroli in August 1982. †Formed on May 1, 1984.)

No. of villages 35,778 inhabited (1971 census).

State Boundaries: It is surrounded by the Arabian Sea in the west; by Gujarat in the north-east; Madhya Pradesh in the north; Andhra Pradesh in the south-east; and Karnataka and Goa in the south.

State Language: Marathi.

Major Cities:

Class I cities/Urban Agglomerations in Maharashtra	Area in sq. kms.	Population (1981 census)
Greater Bombay City (M. Corp.)	603.00	8,243,405
Pune Urban Agglomeration	324.59	1,686,109
Nagpur Urban Agglomeration	236.93	1,302,066
Ulhasnagar Urban Agglomeration	45.53	648,671
Solapur Urban Agglomeration	25.33	514,860
Nashik Urban Agglomeration	145.23	429,034
Thane Urban Agglomeration	41.42	389,801
Kolhapur Urban Agglomeration	67.24	351,392
Aurangabad Urban Agglomeration	50.48	311,421
Aurangabad Urban Agglomeration	50.48	311,421
Sangli Urban Agglomeration	84.17	268,988
Amravati City (M)	36.34	261,404
Malegaon City (M)	12.95	245,883
Akola City (M)	20.88	225,412
Dhule City (M)	46.46	210,759
Nanded City (M)	12.17	191,269
Ahmednagar Urban Agglomeration	31.76	181,210
Jalgaon City (M)	12.44	145,335
Ichalkaranji City (M)	22.63	133,751
Bhusawal Urban Agglomeration	35.44	132,142
Jalna City (M)	25.90	122,276
Chandrapur City (M)	28.54	115,777
Bhiwandi City (M)	4.12	115,298
Latur City (M)	7.08	111,986
Parbhani City (M)	46.57	109,364
Gondiya City (M)	18.08	100,423

AGRICULTURE

Classification of land and area in '000 hectares for 1978-79 respectively are:

Total Geographical area: 30,758; area under forests: 5,326; net area sown: 18,248; gross cropped area: 19,915; barren and unculturable land: 1,740; land put to non-agricultural uses: 1,026; culturable waste: 995; land under miscellaneous tree crops etc.: 210; permanent pastures and other grazing lands: 1,569; current fallows: 779; other fallows: 865; area sown more than once: 1,666.

Area irrigated by source (1976-77): *(i)* Surface irrigation: Net 741,300 hectares; Gross: 882,700 hectares; *(ii)* Well Irrigation: Net 1,091,900 hectares; Gross: 1,359,300 hectares; Total: Net 1,833,200 hectares; Gross: 2,242,000 hectares.

Area Irrigated (1978-79) (Provisional): *(i)* Surface irrigation: Net 830,000 hectares; *(ii)* Well irrigation: Net 1,097,000 hectares; Total: 1,927,000 hectares.

Area Irrigated by crops during 1976-77 (In '000 hectares): Rice 376.7; wheat 519.8; jowar 380.2; sugarcane 297.9; cotton 644.8; groundnut 33.2.

Land Ceiling: The revised ceiling law came into force in the State on Oct. 2, 1975. The ceilings for various categories of alnd (in hectares) are as follows: Perennially irrigated land: 7.2; seasonally irrigated land: 10.9; land with unassured irrigation or land under paddy crop in assured rainfall area: 14.57; other dry crop land: 21.853.

Surplus land: Under the principal as well as the revised Act, 0.281 million hectares were declared surplus till the end of March 1982. Of these 0.183 million hectares have been allotted to 109,000 landless and other persons. Besides, 34.5 thousand hectares of land (sugarcane farms) have been granted to the State Farming Corporation. Of the land allotted to individual allottees t November 1982, 50 thousand hectares were allotted to 30.50 scheduled caste allottees and 31 thousand hectares to 22,000 schedul tribe allottees.

(See main chapter on 'Food & Agriculture' for details o production etc.)

Livestock (1978) (in million): Cattle 15.22; buffaloes 3.90; shee 2.64; goats 7.56; horses and ponies 0.048; pigs 0.226; poultry 18.7

DAIRY DEVELOPMENT

There are 32 Government milk schemes functioning at Bomba Pune, Dhule, Nashik, Vani, Mahad, Khalapur, Ratnagiri, Chiplu Kankavali, Chalisgaon, Ahmednagar, Satara, Mahableshwa Miraj, Solapur, Kolhapur, Nandurbar, Akola, Amravati, Aura gabad, Nagpur, Wardha, Gondia, Beed, Parbhani, Nanded, Ud Bhoom, Chandrapur and Dapchari. The dairy developme activities in Jalgaon and Kolhapur districts are looked after by th district cooperative federations. There are 76 chilling centres various districts of the State with a total capacity of 0.84 milli litres of milk.

Milk Procurement: The average quantity of milk procured dail under all the Government Milk Schemes (except Greater Bomba Milk Scheme) during November 1981 was 1,014 kilolitres as again 999 kilolitres procured during November, 1980.

Greater Bombay Milk Scheme: All the three dairies at Aare Worli and Kurla under Greater Bombay Milk Scheme put togethe received 1,006 kilolitres of milk daily in November, 1981 as again the receipt of 998 kilolitres in November, 1980. In November, 198 the G.B.M.S. distributed about 970 kilolitres of milk daily against 967 kilolitres distributed in November, 1980. The schem also manufactures and markets ice cream, *shrikhand, panee* cheese, *masala* milk and flavoured sweetened milk calle "Energee".

From June 15, 1983 a fourth dairy has been commissioned Goregaon with a capacity of 200,000 litres. With the inauguratio of this scheme Government milk is now being sold through shops well.

Dairy Science Institute: The Institute (at Aarey Milk Colony imparts training to students leading to Diploma in Dair Technology and one year Livestock Supervisor's course.

Milk Powder Plants: There are three milk powder manufacturin plants in the public sector at Miraj, Udgir and Nagpur with capacit to produce 10, 10 and 5 tonnes respectively of milk powder dail Two milk powder plants are functioning in cooperative sector Jalgaon and Waranangar each having capacity to produce daily tonnes milk powder.

New Milk Schemes: Of the total 32 milk schemes, 5 new dairie were commissioned at Satara, Parbhani, Nandurbar, Gondi (Bhandara) and Chandrapur in 1979-80 and one at Goregao (Bombay) in 1983.

Worli Dairy: The dairy started functioning from 7th Nov., 1961. I has pasteurising capacity of 66,000 litres per hour, while the tot handling capacity is of 450,000 litres per day. There are tw packaging systems in operation viz. bottling and satchet filling. Th bottling capacity is 112,000 litres per hour and the satchet fillin capacity is 25,000 litres per hour.

Kurla Dairy: The dairy was commissioned on 9th Feb., 1976. It ha a packing capacity of 400,000 litres per day, in fill-packs. The dair caters to the needs of consumers in central suburbs and other tow viz. Thane, Kalyan, Dombivli, Ulhasnagar, Bhiwandi.

Central Dairy, Aarey: This dairy was commissioned on 3rd Marc 1951. This dairy, catering to the needs of consumers in wester suburbs from Bandra to Dahisar and Vasai, has a capacity t pasteurise 32,000 litres of milk per hour with total handlin capacity of 250,000 litres per day.

Goregaon Dairy: This dairy was commissioned on June 15, 1983. I has a packing capacity of 200,000 litres per day.

IRRIGATION AND POWER (See Chapter on 'Energy'.)

Electricity Supply: Installed capacity (Thousand kilowatt) as at the end of March 1982*: Steam 3,101; Hydro 1,317; Nuclear 210; Total 4,628.

Village Electrification: Out of total 38,661 villages in the State 29,139 had been electrified upto March 1982.

Consumption during 1981-82* (Million Kwh) was: Domestic light and small power 1,958; Commercial light and small power 1,104; Industrial power 8,618; Public lighting 169; Traction 729; Irrigation and dewatering 1,882; Water works 353; Miscellaneous 212; Total 15,026.

INDUSTRIES

Textiles, food industries, general and electrical engineering, petroleum, transport and transport equipment, sugar factories and refineries, rubber products, basic industrial chemicals, paints, varnishes, lacquers and miscellaneous chemical products are the major industries of the State.

Working factories (as on 31-12-1981): No. of working factories: 16,594; average daily employment (in thousands): 1,192.

Large and Medium Industries: Distribution of working factories districtwise is as follows (1980):

Greater Bombay: 7,382; Thane: 1,220; Kulaba: 148; Ratnagiri: 93; Nashik: 626; Dhule: 105; Jalgaon: 179; Ahmednagar: 166; Pune: 1,398; Satara: 113; Sangli: 229; Solapur: 1,178; Kolhapur: 491; Aurangabad: 229; Parbhani: 63; Beed: 37; Nanded: 69; Osmanabad: 40; Buldana: 90; Akola: 165; Amravati: 145; Yavatmal: 103; Wardha: 52; Nagpur: 467; Bhandara: 252; Chandrapur: 130; Maharashtra State: 15,170.

No. of **working factories in major groups of industries** as on 31-12-1980:

Agricultural production 3; agricultural services 14; forestry and logging 5; other mining 7; manufacture of food products 1,732; beverages, tobacco and tobacco products 57; cotton textiles 2,247; wool, silk and synthetic fibre textiles 784; jute, hemp and mesta textiles 4; textile products (including wearing apparel other than footwear) 620; wood and wood products, furniture & fixture 318; paper and paper products and printing publishing and allied industries 1,024; leather and fur products (except repair) 72; rubber, plastic, petroleum and coal products 837; chemicals and chemical products (except products of petroleum and coal) 980; non-metallic mineral products 801; basic metal and alloys industry 667; metal products and parts except machinery 1,395; machinery, machine tools and parts except electrical machinery 1,396; electrical machinery, apparatus, appliances and supplies and parts 786; transport equipment and parts 249; other manufacturing industries 431; electricity 114; gas and steam 15; water works and supply 48; construction 2; activities allied to construction 3; wholesale trade in fuel, chemical perfumery, ceramic glass 4; wholesale trade in wood, paper, other fabrics, skin and inedible oil 9; wholesale trade in misc. manufacturing 2; retail trade in fuel and other household utilities and durables 2; retail trade in others 6; land transport 1; water transport 1; air transport 5; services incidental to transport 2; storage and warehousing 25; communications 1; real estate and business services 25; sanitary services 16; education and scientific research services 2; medical and health services 5; community services 1; recreation and cultural services 19; personal services 26; repair services 396; international and other extra territorial bodies 2; services not elsewhere classified 7; activities not adequately defined 2; Total: 15,170.

Joint Stock Companies: No. of joint stock companies at work as on 31st March 1982: 16,976; Paid up capital: Rs. 18,520 million (data provisional).

Industrial Estates: 77 estates have been approved in the State. The Development works were in progress in 59 areas by the end of 1980-81 and by the end of March 1981 Maharashtra Industrial Development Corporation had allotted 9,777 plots. Of the 77 Estates 58 are partially functioning and by the end of March 1981, 3,006 sheds were constructed in which 2,323 industrial units were functioning.

Industrial Estates: Eighty-three estates have been approved in the State. The production work has started in 58 of these estates and the primary work at 23 estates is in progress and 2 estates have gone in liquidation. The Maharashtra Industrial Development Corporation had allotted 11,927 plots by the end of March 1982, 3,107 sheds were constructed in which 2,371 industrial units were functioning.

Industrial Development Agencies: See chapter on 'State Govt. Undertakings'.

LABOUR

Trade Unions: No. of registered trade unions: 3,476. Total membership of registered trade unions: 2,091,913. No. of registered trade unions affiliated to Indian National Trade Union Congress: 160, with membership of 398,135. No. of registered trade unions affiliated to All India Trade Union Congress: 87, with membership of 108,212. No. of registered trade unions affiliated to Hind Mazdoor Sabha: 61, with membership of 358,648. No. of registered trade unions affiliated to Hind Mazdoor Panchayat: 4, with membership of 47,422. No. of registered trade unions affiliated to C.I.T.U.: 29, with membership of 39,725. No. of registered trade unions affiliated to United Trade Union Congress: 3, with membership of 3,703. No. of registered trade unions affiliated to Bharatiya Mazdoor Sangh: 121, with membership of 179,647.

The table below gives the average daily number of workers employed in various industries (as on Dec. 31, 1981*).

Industry	Average daily no. of workers employed as on 31.12.1981
Manufacture of food products	883
Manufacture of beverages, tobacco and tobacco products	82
Manufacture of cotton textiles	2,804
Manufacture of wool, silk and synthetic fibre textiles	496
Manufacture of textile products	254
Manufacture of wood and wood products, furniture and fixture	75
Manufacture of paper and paper products, printing, publishing and allied industries	549
Manufacture of leather, leather and fur products (except repairs)	25
Manufacture of rubber, plastic, petroleum and coal products	421
Manufacture of chemicals and chemical products	1,059
Manufacture of non-metallic mineral products	403
Basic metal and alloys industries	689
Manufacture of metal products and parts (except machinery and transport equipment)	621
Manufacture of machinery, machine tools and parts (except electrical machinery)	1,101
Manufacture of electrical machinery apparatus, appliances, supplies and parts	685
Manufacture of transport equipments and parts	903
Other manufacturing industries	209
Others	663
Total	11,921

*Provisional.

Provisional

Industrial Disputes during 1980 (Provisional): During the year 1980, there were 336 work-stoppages (strikes and lock-outs) involving 198,056 workers with a time loss of 3.15 million mandays. Figures for 1979 were 383 work-stoppages (strikes and lock-outs) involving 204,794 workers with a time loss of 1.54 million mandays.

Employment Exchange Statistics (1982-83): No. of registrations 609,007; no. of placements 41,936; no. of vacancies notified 84,187; no. on live register as on 31st March, 1983: 1,582,845.

Educational Break-up of Unemployed (No. on live register at the end of June, 1982): Non-matric including illiterate: 755,794; matriculates: 537,836; intermediates: 71,985; engineering diploma holders: 8,043; I.T.I. passed and apprentices trained under Apprenticeship Act: 30,162; engineering graduates: 1,249; other graduates: 104,465; total graduates: 105,714; engineering post-graduates: 20; other post-graduates: 13,079: total post-graduates: 13,099; Grand total: 1,522,633.

Private Sector Employment: The total employment was 1.4 million at the end of March 1982.

Public Sector Employment: The total employment was 1.9 million at the end of March 1982 of this 25.4 per cent was in Central Government, 21.5 per cent was in State Government, 16.9 per cent was in Central Quasi Government, 10.2 per cent was in State Quasi Government and 26.0 per cent was in Local Bodies.

Employment Promotion Programme: The State Government provided Rs. 35.5 million as financial help to 13,514 educated unemployed since 1972 to start their own enterprises (industrial or business) and thereby 12,964 units were established uptill September 1976.

EDUCATION

Technical Education (1982-83): Category-wise number of institutions: Engineering colleges: 9; other degree colleges: 7; autonomous governing bodies: 9; polytechnics: 33; other diploma institutions: 39; technical high schools: 182; industrial training institutions: 89; others: 1,381; Total: 1,749.

Universities

1. University of Bombay (established in 1857) has jurisdiction over Bombay. Nine colleges of Goa are also affiliated.

2. University of Poona, Pune (established in 1948) has jurisdiction over Pune, Ahmednagar, Jalgaon, Dhule, Thane, Nashik and Raigad districts.

3. Nagpur University, Nagpur (established in 1925) has jurisdiction over the districts of Akola, Buldana, Amravati, Nagpur, Bhandara, Yavatmal, Wardha, Chandrapur and Rajura taluka of Vidarbha area.

4. Marathwada University, Aurangabad (established in 1948) has jurisdiction over the five districts of Marathwada area viz. Aurangabad, Beed, Nanded, Osmanabad and Parbhani.

5. Shivaji University, Kolhapur (established in 1963) has jurisdiction over Kolhapur, Solapur, Satara, Sangli and Ratnagiri districts.

6. Shrimati Nathibai Damodar Thackersey Women's University, Bombay (established in 1949), is exclusively for women and has unrestricted territorial jurisdiction.

7. Mahatma Phule Agricultural University, Rahuri, Ahmednagar district (established in 1968).

8. Punjabrao Deshmukh Agricultural University, Akola (established in 1969) has jurisdiction over revenue divisions of Nagpur and Aurangabad.

9. Konkan Agricultural University (Krishi Vidyapeeth), Dapoli, Ratnagiri District (established in 1972) has jurisdiction over the districts of Thane, Raigad, Ratnagiri & Gr. Bombay.

10. Marathwada Agricultural University, Parbhani (established in 1972) has jurisdiction over five districts of Aurangabad Revenue division of Maharashtra.

Teaching Institutions (1981-82):

Type	Number	Enrolment
Schools:		
Pre-Primary	660	65,577
Primary	51,534	8,673,606
Secondary	6,237	3,521,715
Colleges:		
Teachers Training	206	24,277
Higher Education	705	614,097
Professional:		
Professional and Special Education	1,271	127,392

PUBLIC HEALTH

Total No. of allopathic medical practitioners registered a Maharashtra Medical Council, Bombay upto April, 1983: N.A . Total No. of doctors at Government Teaching Hospitals and Dispensaries: Full time: N.A.; honorary: 437; professors: 178 lecturers: 761; associate professors: 148; readers: 496.

Total No. of Nursing staff in Government Teaching Hospitals and Dispensaries: Staff nurses: 3,037; Public Health nurses: 31 paediatric nurses: 28; psy. nurses: 1; ward sisters: 405; matrons gazetted: 20; assistant matrons: 7.

Total No. of Government Medical colleges: 8; seats allotted 985; Dental colleges: 3; seats allotted: 160.

	Hospitals		Dispensaries		Total	
	No.	Beds	No.	Beds	No.	Beds
State Govt. (teaching hospitals)	11	8,294	8	192	19	8,486
Central Govt.			Not available			
Mun. & Local bodies			-do-			
Others (excluding private agencies) Govt.			-do-			

Non-Allopathic Medical Colleges, Hospitals and Dispensaries:

Ayurvedic: No. of Government Colleges: 3; Private Colleges: 14; tota no. of seats provided in Government Colleges (Ayurvedic): 160; tota no. of seats in aided Ayurvedic Colleges: 685; no. of Governmen hospitals: 3; Government aided hospitals: 14; Research ward (Government): 1; total no. of beds: 1,672; *Zilla Parishad* dispensaries: 432; no. of licentiate doctors: 25,030.

Homoeopathy: No. of private homoeopathic colleges: 24; no. of seats provided: 1,255; no. of homoeopathic hospitals: 23; no. of Government homoeopathic hospitals: 1; total no. of beds: 30; no of licentiate doctors: 7,778.

Unani: No. of unani colleges (private): 1; total no. of seats provided in the college: 45; no. of beds in unani hospital: 45; no. o *Zilla Parishad* aided unani dispensaries: 30; total no. of licentiate doctors: 390.

Family Welfare Programme (1981-82): Number of family planning centres in Maharashtra: 655; sterilisation operations performed (during 1981-82): vasectomy: 199,360; tubectomy: 295,244; total 494,604; I.U.C.D. insertions: 40,698.

COMMUNICATION

Nationalised Road Transport: A single transport corporation for the entire State, known as the Maharashtra State Road Transport Corporation came into existence on 1st July, 1961. This is the biggest road transport organisation in India.

Nationalised road transport position as on 31st March, 1982 is as follows: No. of routes: 11,070; route distance: 711,606 kms; average no. of vehicles on road per day during 1981-82: 8,652; average daily earnings: Rs. 7.671 million in 1981-82; average no. of passengers carried per day in 1981-82: 3.494 million.

Length of Motorable Roads

Items	As on 31st March, 1982 (Provisional)
National highways	2,945
State highways	19,133
Major district roads	25,427
Other district roads	25,735
Village roads	28,611
Total	101,851

In addition the public works department and *Zilla Parishad* maintain 41.10 thousand kms. of road length as on 31st March, 1982 making the total road length in the State 142,953 Kms.

Besides, roads maintained as on 31st March, 1982 by other agencies in Maharashtra were as under:

Municipal Councils and Corporations: 10,975 Kms.; forest department: 13,998 Kms.; irrigation department: 2,056 Kms.; railways: 393 Kms.; total: 27,422 Kms.

Railways (as on 31.3.1982): Total length: 5,234 Kms. Zonewise: Central Railway: 3,050 Kms.; Western Railway: 351 Kms.; South Central Railway: 1,156 Kms.; South Eastern Railway: 677 Kms.

Number of Vehicles	As on 1st January 1983
Motor cycles	241,811
Scooters	241,163
Motor cars	250,975
Taxi cabs	35,846
Auto rickshaws	46,497
Stage carriages—	
i) Diesel engined	16,540
ii) Petrol engined	—
Contract carriages—	
i) Diesel engined	1,980
ii) Petrol engined	—
Lorries	
A. Private Carriers—	
i) Diesel engined	27,484
ii) Petrol engined	7,822
B. Public Carriers—	
i) Diesel engined	77,034
ii) Petrol engined	10,898
Ambulances	1,203
School buses	661
Private services vehicles	2,701
Trailors	31,896
Tractors	31,969
Others	1,932
Total	1,028,412

Source: Commissioner of Transport, Maharashtra State, Bombay

B.E.S.T. (1981-82): Total staff in the Undertaking: 32,237; no. of buses: 2,168; route Kilometres: 2,235.2; average number of passengers carried per day: 4.060 million; income for the year: Rs. 625.998 million; expenditure for the year: Rs. 788.634 million.

Electric Supply Section: No. of units sold: 1,477.7 million; no. of consumers: 586,218; income for the year: Rs. 1,004.862 million; expenditure for the year: Rs. 901.640 million.

HOUSING

No. of tenements constructed by Maharashtra Housing and Area Development Authority upto 31.3.1983 in Bombay, Pune, Aurangabad, Nagpur and Konkan: Old Housing Scheme: 6,186; Subsidised Industrial Housing Scheme: 38,672; Slum Clearance Scheme: 20,990; Lower Income Group Housing Scheme: 26,540; Middle Income Group: 9,321; Economically weaker section: 18,892; Higher Income Group: 1,560; Total: 122,161.

PRESS

Names	Place of Printing
Dailies (English)	
Daily	Bombay
Economic Times	Bombay
Evening News of India	Bombay
Financial Express	Bombay
Free Press Bulletin	Bombay
Free Press Journal	Bombay
Indian Express	Bombay
Mid-day	Bombay
Nagpur Times	Nagpur
Times of India	Bombay
(Hindi)	
Navbharat	Nagpur & Raipur
Nav Bharat Times	Bombay
(Gujarati)	
Bombay Samachar	Bombay
Janmabhoomi	Bombay
Janashakti	Bombay
(Marathi)	
Kesari	Pune
Loksatta	Bombay
Maharashtra Times	Bombay
Mumbai Sakal	Bombay
Navakal	Bombay
Navshakti	Bombay
Sakal	Pune
Sanchar	Solapur
Tarun Bharat	Pune and Nagpur
(Sindhi)	
Hindustan	Bombay
(Urdu)	
Inquilab	Bombay

GENERAL

State Income: According to current prices the State Income was: 1980-81: Rs. 141,515 million and per capita income Rs. 2,293.6 (Provisional).

1981-82: Rs. 158,863 million and per capita income Rs. 2,519.2 (Preliminary).

Village Panchayats: There were 24,426 village *Panchayats* in Maharashtra State at the end of 1981-82, and 296 *Panchayat Samities* covering 41,833 villages.

Municipal Corporations and Councils: There are nine municipal corporations viz., Gr. Bombay, Thane, Pune, Solapur, Nagpur, Kolhapur, Nashik, Pimpri-Chinchwad and 222 municipal councils and seven cantonment boards.

Minerals: The potential mineral bearing area in Maharashtra is about 38 thousand sq. kms. i.e. 12 per cent of the total area of the

State. The estimated reserves of important minerals in the State are as below (in million tonnes)

Coal 2,622; Iron ore (Haematite)* 225.49; Manganese ore* 15.83; Bauxite* 88.39; Limestone 3,484.80; Silica sand 47.75; Kyanite and Sillimanite* 2.49; Dolomite* 345.73.

The Sixth Plan: Approved outlay for the State is Rs. 61,750 million, distributed as follows: Industry and mining Rs. 1,921.6 million; Agriculture and allied programme Rs. 5,033.5 million; Employment Guarantee scheme Rs. 4,500 million; Social and community service Rs. 11,999.5 million; Irrigation Rs. 11,392.6 million; Power development Rs. 21,570 million; Cooperation Rs.574.4 million; Transport and Communication Rs. 4,406 million; and others Rs. 352.4 million.

Annual Plan (1983-84): The approved outlay for the Annual Plan is Rs. 15,000 million. For 1982-83 anticipated expenditure is Rs. 13,576.7 million. For 1983-84, approved outlay for agriculture and allied programme, Rs. 1,801.1 million; co-operation, Rs. 221.3 million; water and power development, Rs. 7,487.9 million; industry and mining, Rs. 499.4 million; transport and communications, Rs. 837.8 million; social and community services, Rs. 3,993.9 million; economic services, Rs. 13.6 million and general services, Rs. 145 million.

Rivers: The Godavari, the Tapti, the Panjhra, the Girna, the Purna, the Wardha, the Wainganga, the Indravati, the Pranhita, the Penganga, the Pravara, the Manjra, the Bhima, the Sina, the Varna, the Ghatprabha, the Mula, the Dudna, the Ghod, the Kadam, the Nira, the Tirna and the Krishna.

MANIPUR

The political history of Manipur dates back to the first half of the first century AD. Later, it was divided into seven principalities. It was formerly under the control of the Government of India. On August 15, 1947, it entered into interim arrangements with the Indian Union and the political agency ceased to function. It was made Union Territory under the States Reorganisation Act, 1956, and became a full-fledged State on January 21, 1972.

CAPITAL: Imphal. **Area:** 17.48 sq. kms.; **Population** (1971 census): 100,366.

Area of the State: 22,356 sq. kms. **Population of the State** (1981 census): 1,433,691; **Density:** 64 per sq. km.; **Sex Ratio:** 972 females per 1,000 males; **Literacy:** 41.99 per cent.

Districts: Manipur has been reorganised into eight districts, two new districts of Imphal South and Imphal West, being created in May, 1983. Manipur Central district has been split up into three districts. The names of the present districts are Manipur Central, Imphal South, Imphal West, Manipur East, Manipur North, Manipur West, Manipur South and Tengnoupal. The headquarters of the two new districts will be Thoubal for Imphal South and Bishenpur for Imphal West.

Major City: Imphal.

Villages: There are 1,949 villages in the State.

State Boundaries: Manipur is bound in the north by Nagaland, in the south by Mizoram, in the east by Upper Burma and in the west by Cachar district of Assam.

State Languages: Manipuri and English are the official languages though several different dialects are spoken. Hindi is becoming gradually prevalent.

AGRICULTURE

The principal crops are paddy and maize. After the end of the Fourth Plan considerable land has been brought under Japanese method of cultivation, double-cropping and use of improved seeds and green manure. 105 minor irrigation schemes are being taken up in the valley areas to increase food production. Out of the total area of 22,356 sq. km. the area under agriculture is 210,000 hectares. Foodgrain production during 1977-78 was 39.4 million tonnes against base level production of 274,000 tonnes. In 1982 Rs. 0.150 million was allotted for raising the production of pulses and oilseeds.

A Plantation Crop Corporation has been set up to promote tea and coffee estates in the State. An area of 50,000 hectares have been identified as suitable land and Government proposes to set up three tea plantations during the Sixth Plan period.

IRRIGATION & POWER

There are seven projects under Major and Medium Irrigation Programme. They are Loktak Lift Irrigation Project, Singda Multi-purpose Project, Imphal Barrage Project, Khopum Dam Project, Sekmai Barrage Project, Thoubal Multipurpose Project and Khuga Irrigation Project. Among the projects under consideration, the Chakpi Multipurpose Project and the Irril Project are the most important. The first phase of the Loktak Lift Irrigation Project had been commissioned by May, 1979 to irrigate about 2,000 hectares of land. When completed this 105 MW hydro-electric project will help lift irrigation for 40,000 hectares of land while Khuga dam will bring 9,500 hectares under irrigation. Khoupum Dam Project was inaugurated in 1978 and would provide irrigation to 1,000 hectares. With the completion of all these projects irrigation facility would be extended to 142,000 hectares. In 1982 Rs. 0.125 million was allotted for the development of minor irrigation schemes. The total investment in irrigation sector was Rs. 740 million during 1982-83.

The investment during 1976-77 was Rs. 38.2 million. The total investment during the Fifth Five Year Plan on major and medium irrigation projects alone will be about Rs. 225.00 million.

The total installed capacity of power both hydel and thermal in 1976-77 was 10,838 KW. It was increased to 14,837 KW. in 1981-82. Manipur had only 9 electrified villages before 1951. The number increased to 274 during 1978-79.

The Planning Commission has approved a scheme for taking up a multi-purpose project across the Thoubal River at Phayeng costing about Rs. 472.5 million with irrigation plotential of about 33,400 hectares.

Forests: Manipur forests are rich in bamboo, cane, teak, *jurjan*, pine and varieties of timber. Of the total area of 22,356 sq. kms. forests occupy about 15,154 sq. kms. Bamboo and cane, over an area of 2,585 sq. kms., are available in abundance in the south-western hill ranges, especially in the Jiri and Barak river drainage area, yielding about 300,000 tonnes annually.

During 1977-78, 15 development schemes with an outlay of Rs. 4.2 million were taken up.

The revenue from forests in 1981-82 was Rs. 3,900,000.

Fisheries: More than 75 per cent of the population consume fish. The total annual consumption is estimated to be 13,935 quintals, while the total yield was about 3,000 tonnes in 1979-80. There are 24 fishing units registered with the Fishery Department, Manipur. 5.50 million fish fingerlings and 2,500 tonnes of fish were produced during 1979-80 earning a revenue of Rs. 802,000.

INDUSTRY

The total Annual Plan 1977-78 allocation for Industries as a whole was Rs. 12.62 million excluding sericulture. Out of this amount Rs. 7.60 million had been provided for large & medium industries and Rs. 5.02 million for village & small industries sector. Another Rs. 5.287 million has been earmarked for centrally sponsored schemes.

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*Reserves for these minerals are as on 1st January, 1980. For other minerals the information is based on the latest available data.

Large & Medium Industries: In the field of large and medium industries, a *khandsari* unit with 60 tonnes per day crushing capacity started production in 1976. A spinning mill with 25,000 spindle capacity is being started. Steps have also been taken to start a mini-cement plant in each district of manipur which will utilise the substantial limestone deposit. Action has also been taken to install a starch and glucose factory with a plant capacity of 60 tonnes per day. A sugar factory at Bishenpur with crushing capacity of 1,250 tons a day is envisaged while a 5.879 million mechanised dye-house is to be set up by Manipur Handloom and Handicrafts Development Corporation at Irosmeba.

Village & Small Industries: Handloom is the biggest industry in Manipur. There are more than 200,000 registered looms in the State and 500 weavers' co-operative societies.

For the development of handloom the Manipur Handloom and Handicrafts Development Corporation has been set up.

One intensive handloom development project has been taken up. Under the project 10 handloom extension centres at different places have been opened with 100 looms per centre to be expanded to 1,000 looms per centre within five years commencing from the year 1978-79. Government of India has sanctioned Rs. 18.5 million for this project.

A handloom export oriented project for production of exportable varieties/designs has been sanctioned by the Government of India. It will have 10,000 looms.

Handicrafts: One handicrafts design centre, one dolls and toys production centre and two bamboo and cane training centres have been established.

Small Scale Industries: The small industries include carpentry, blacksmithy, embroidery, brick-making, tailoring and cutting, goldsmithy, repairing and servicing of vehicles, tin smithy.

Manipur Small Industries Corpn. arranges the supply of scarce raw materials and marketing of the finished products.

Training-cum-production centres in various trades have been set up both in the valley and the hill areas. Altogether 35 such training centres are functioning.

To accelerate the development of small scale industries an Industrial Advisory Board has been set up and the jurisdiction of Assam Financial Corporation extended to Manipur.

Industrial Estate: Industrial Estate at Takyelpat, Imphal provides industrial sheds at concessional rates to small scale units. 28 such sheds have been constructed and allocated.

Tribal Development (Sub-plan): For the development of tribal population a tribal sub-plan has been formulated in the industrial field. Under this plan co-operative saw mill-cum-carpentry units have been set up at Keithelmanbi, Tamonglong, Tengnoupal (Chakpi), Ukhrul and a leather training-cum-processing unit at Churachandpur.

A tribal emporium at Imphal under the Directorate of Industries facilitates sales of tribal handloom cloth and handicrafts products.

Khadi and Village Industries: There are 121 hand pounding co-operative societies including one at the apex level, 6 pottery co-operative societies, 7 gur and khandsari co-operative societies, 6 khadi institutions and co-operatives, 5 hide flaying and leather co-operative societies, 2 non-edible oil and soap making institutions and one co-operative society, 32 edible oil crushing co-operative societies including 2 at the apex level and 2 match making co-operative societies. There are also 42 individuals in the bee-keeping trade.

The Sixth Plan: Outlay for the State is Rs. 2,400 million.

Annual Plan: The outlay for the Annual Plan for 1983-84: Rs. 510 million.

Sericulture: Manipur is the first to introduce Oak *Tasar* industry. There are 54 *tasar* farms which produce about 30 million *tasar* cocoons valued at Rs. 2.0 million. About 5,000 tribals thus find subsidy occupation. Rs. 516 million has been earmarked for *Tasar*-silk production in the Sixth Plan.

Labour: Following are the number of workers engaged in different fields (male and female respectively).

Total no. of workers: 245,435; 125,428; cultivators: 167,038; 81,442; agricultural labourers: 8,662; 4,863; other workers: 69,735; 39,123

EDUCATION

There are 3,533 primary schools, 391 middle schools, 264 high and higher secondary schools, 35 colleges and 5 science colleges (1979-80).

University Education: The Jawaharlal Nehru University has been merged with Manipur University on 1st April, 1981.

PUBLIC HEALTH

There are 39 hospitals, including Primary Health Centres and 115 Primary Health Sub-Centres. Besides there are 170 dispensaries in the State (1979-80).

COMMUNICATIONS

Manipur will appear on the rail map with the connection of Jiribam with Silchar. The other surface communication is the 215 km. Imphal—Dimapur road. A national highway also passes through the State. A second road is now being improved which will link Cachar district of Assam with Manipur. There are five principal private operators of motor transport in the cooperative sector, besides the Manipur State Road Transport Corporation.

Two land routes from Burma pass through the State. There are air services at regular intervals between Imphal-Silchar, Imphal-Calcutta and Imphal-Gauhati.

GENERAL

With the passing of the North-Eastern Areas (Reorganisation) Bill on 21-12-1971, Manipur became a full-fledged State, and was formally inaugurated by Prime Minister, Mrs. Indira Gandhi, on 21-1-1972.

Climate: Varied temperatures. The valleys are hot and the hills are cold. Average rainfall is 162.6 cms.

Important Rivers: The Iril, the Thoubal, the Imphal, the Barak, the Nambul, the Leimakhong and the Khuga.

Lakes: The Loktak lake covers about 104 sq. kms during rainy season and 64 sq. kms. during dry season. The other important lakes are Walthou, Ushoipokpi, Ikop, Laidokan and Pumlen.

Minerals: Geological mapping and mineral investigation conducted by the Geological Survey of India indicated availability of high quality of limestone at different places in the State in sufficient quantities to start a small cement plant. Salt mines abound in Ningel, Sikhong, Waikhong and Chandrakhong. Iron-ore and lime-stone are available at Kakching while chromium and nickel are found in Tengoupal.

Tribes: Main population consists of the Meiteis inhabiting the valley with some 29 tribes and sub-tribes known by the generic name of Kukis and Nagas.

Important Tourist Centres: Keibul lamjeo, Phubala Tourist Home, Sendra Tourist Home, Waithou Tourist Home, Gobindajee Temple, War Cemetery and Kaina tourist Home. A Tourist lodge has been set up and it is going to be expanded. A Youth Hostel and a Three Star Hostel is being set up very shortly.

Horticulture: In the field of horticulture the State produces pineapples, oranges, bananas, mangoes, and other varieties of fruits. The Government has allocated Rs. 5 million for production of fruits in 1982-83.

MEGHALAYA

Meghalaya, meaning "the abode of the clouds" which consists of the former Garo Hills district and the United Khasi and Jaintia Hills district of Assam was created under the Assam Reorganisation (Meghalaya) Act, 1969 and was inaugurated on April 2, 1970. It became a State of the Indian Union on January 21, 1972. It is one of the "seven sisters of the north-east", the others being Assam, Nagaland, Manipur, Tripura, Arunachal Pradesh and Mizoram. They are bounded by Tibet, Bhutan and China on the north, Burma on the east and Bangladesh on the west.

CAPITAL: Shillong. **Area:** 21.27 sq. kms.; **Population** (1971 census). 122,752.

Area of the State: 22,489 sq. kms: **Population of the State** (1981 census): 1,327,874; **Density:** 59 per sq. km.: **Sex Ratio:** 956 females per 1,000 males; **Literacy:** 33.22 per cent.

Districts	Headquarters	Area in sq. kms.	Population (1971 census)
East Khasi Hills	Shillong	11,168	491,209
West Khasi Hills	Nongstoin		
East Garo Hills	William nagar	8,084	406,615
West Garo Hills	Tura	3,295	113,875
Jaintia Hills	Jowai		

Major Cities with their Population (1971 census): Tura: 15,489: Jowai: 8,929.

State Boundaries: Bound by Bangladesh in the south and west. Goalpara. Kamrup districts of Assam in the north and United Mikir and North Cachar Hill districts of Assam in the east.

State Language: English is being used for all official purposes at the State level. The State has not enacted any legislation on official language. The principal languages spoken are Khasi. Jaintia and Garo.

AGRICULTURE

Eighty-five per cent of the population lives in rural areas and depends on agricultural produce for their livelihood.

Following are some of the crops grown:

Grains: Rice, maize, millets and wheat.

Fruits: Citrus, pineapple, bananas, pears, peaches, plums and apples.

Cash & Commercial Crops: Potatoes, jute and mesta, short-stapled cotton, mustard, arecanut, ginger, turmeric, black pepper, pipul, bay leaves etc.

LIVESTOCK

The State has 21,000 sheep, 39,593 buffaloes, 151,313 pigs and more than 478,000 cattle.

DAIRYING

It provides bulk of Assam's milk supply. Meghalaya has launched a Rs. 8.2 million Indo-Danish project for the development of cattle. A dairy extension unit at Jowai produces butter, ghee and cream.

IRRIGATION

A number of minor irrigation projects cover approximately 18,500 hectares of land. More projects will be taken up in phases covering both lift and flow irrigation.

POWER

The state now has six projects in hand with the installed generation capacity of 132.1 MW. The Myntdu hydel project in the Jaintia Hills (42 MW) and Kynshi project in the west Khasi Hills (75 MW) are under investigation.

INDUSTRIES

Some of them are: The Meghalaya Plywoods Ltd.; The Komorrah Limestone Mining Co. Ltd.; The Associated Beverages (P) Ltd.; The Meghalaya Essential Oils & Chemicals Ltd.; The Meghalaya Phyto-Chemicals Ltd.

The public-sector Mawmluh-Cherra Cements Ltd., at Cherapun with an installed capacity of 250 tonnes a day is being expanded t 930 tonnes per day. Further the Govt. has decided to set up two min cement plants with a total capacity of 800 tonnes a day at Garo Hil and Jaintia Hills. A number of small industrial establishments lik saw mills, food processing units, bone mill, cotton ginning, bakeries etc., are also to be found in Meghalaya.

Proposals are also afoot to set up industries based on lemon gras oil, ginger oleo-resin and emetine hydrochloride.

An industrial area in Burnihat, about 80 kms. from Shillong o the Gauhati-Shillong road, is being developed and two industria estates, one at Shillong and the other at Mendipathar in Garo Hill district, are being established.

At present there are 644 small industrial units in the State out c which 547 are in the Khasi Hills, 43 in Garo Hills, and 54 in Jainti Hills.

EDUCATION

The North-Eastern Hill University at Shillong offers upto post graduate education. The Central Institute of English and Foreig Languages has also set up its branch in Shillong.

The State has at present 15 colleges, one post-graduate trainin college, 225 high/higher secondary schools, 575 middle/senior bas schools, one polytechnic, one industrial training institute and 3,24 lower primary schools.

Percentage of literacy in the State is 33.22 which compare favourably with the all-India average of 23.95 per cent.

PUBLIC HEALTH

There are 9 government hospitals, 25 primary health centres an 57 dispensaries. The number of beds in the government hospitals i 1,406. There are three training institutes for nurses with 70 seats There are also a number of private hospitals.

MINERAL WEALTH

Major mineral resources are coal, limestone, sillimanite associated with corundum, fireclay, felspar, quartz, glass sand an kaolin. The estimated reserves of coal are about 450 millio tonnes. Limestone reserves are about 4,000 million tonnes and cla deposits 6.7 million tonnes.

ANNUAL PLAN

1983-84: The outlay for the Annual Plan is Rs.563.2 millio

GENERAL

The hill State of Meghalaya was created under the Assam Reorganisation (Meghalaya) Act, 1969 of Parliament passed on Decembe 24, 1969. It was inaugurated by the Prime Minister Mrs. Indir Gandhi on April 2, 1970 as an autonomous State and subsequentl was made a full-fledged State on January 21, 1972.

The population of Meghalaya predominantly consists of th Khasi, Jaintia and Garo tribals.

Cherrapunji, one of the urban centres of the State, has the world' highest rainfall of 10,870 mms.

Rivers: The Bogapani, the Kynshi, the Kupli, the Digru, the Jinjira and the Simsang.

MIZORAM

(Union Territory)

Mizoram, land of the Mizo highlanders who belong to the Mongolian race, was formerly called the Lushai Hills district, but in 1957 it became by an Act of Parliament the Mizo Hills district. In 1972 it was made Union Territory and named Mizoram.

CAPITAL: Aizawl.

Area of the Territory: 21.087 sq. kms.; **Population** (1981 census): 483.757; **Density:** per sq. km. 23; **Sex Ratio:** 936 females per 1.000 males; **Literacy:** 60.03 per cent.

Districts: (Names and population as per 1981 census respectively): Aizawl: 340.826; Lunglei: 86.511; Chhimtuipui: 66.420.

Towns: Aizawl, Lunglei. **Sub. Towns:** Kolasib, Champhai, Serchhip, Mamit and Saiha.

Boundaries: The Territory is bound by Cachar district of Assam in the north, Manipur in the north-east, Bangladesh in the south and west and Tripura in the north-west.

AGRICULTURE

Total geographical area: 1.101.900 hectares; gross cropped area: 70.000 hectares; net area sown: 9.000 hectares; multiple cropped area: 6.000 hectares; current fallow area: 133.290 hectares; area not available for cultivation: 474.110 hectares; other cultivated areas: 46.300 hectares; total net area under permanent irrigation: 8.000 hectares. Paddy is the principal crop. Other crops grown are maize, cotton, groundnut, potato, ginger, orange, *til*, lime, and tea. Cash crops like coffee, rubber, cardamom and cashew-nuts have recently been introduced as part of soil conservation scheme. Ginger and *til* cultivation has shown good results.

Production (1980-81) in tonnes: Rice: 85,290; ginger: 1,629; sugar-cane: 50,820; potato: 2,755; turmeric: 317; chillies: 1,458; maize: 6,166; cotton: 1,240; and tobacco: 347.

Land Tenure: There is no individual land-holding in Mizoram and so far no tenure has been established. The land belongs to the villages as a whole and the people practice shifting cultivation.

However, land is allotted by issue of panes for establishing gardens and terraces for permanent cultivation.

Forests: Forest area (in sq. kms.): 15.935.22; reserved: 5.618.22; unclassed state: 5.240; supply and safety reserves: 2.648 sq. kms.; protected forests: 1.647; Dampa wild life sanctuary: 572; Tawi wild life sanctuary: 210.

Animal Husbandry: Livestock: 123.150; poultry: 1.123.943; veterinary dispensaries: 22; rural animal health centres: 43; veterinary hospital: 1.

POWER

The Central Electricity Authority has decided to set up 7 Micro-hydel projects with a total generation capacity of 3.200 Kw. Surveys being undertaken to identify and locate these projects at Bairabi (150 MW), Vanva (1.5 MW), Tuilumlui (20 MW) and Serlui 'A' (1.000 KW). Work has already been started for Serlui 'B' (15/20 MW).

INDUSTRIES

There is no major industry in the Territory. A few people are occupied in traditional cottage industries. The Mizos are good weavers. They produce lovely woollen carpets, but the production is very slow and not economical. They produce cane hats and baskets. No. of cottage industry centres in Aizawl district is 277. In Lunglei district 79, in Chhimtuipui district 25 and 10 weaving centres.

Community Development: There are 20 C.D. blocks in the Territory, covering 21.087 sq. kms.

Co-operation (as on 1st March, 1982): There are 298 co-operative societies in the territory out of which 236 are in Aizawl district, 37 in Lunglei and 25 in Chhimtuipui district. There are five super markets run by co-operative societies.

EDUCATION

Almost every village has a Government or a private school offering education from standards I to III in vernacular and English. There were 326 pre-primary schools, 770 primary schools, 331 middle schools, 140 high schools, 11 colleges for general education and one polytechnic school, 2 teachers' training institutes and one Mizoram Institute of Education—degree level. Mizoram Board of School Education was established in 1977 and it conducted HSLC Examination in 1978 for the first time.

Besides general education, the Government also launched physical, social, adult and handicapped education.

PUBLIC HEALTH

No. of hospitals: 7; primary health centres: 14; subsidiary health centres: 15; doctors: 72; specialists: 63; auxiliary nurses/midwives/health workers: 709; pharmacists: 72; matrons: 4; beds in hospitals/medical units: 507; T.B. hospital: one (with 50 beds); blood bank: one; leprosy control unit: one; malaria units: 3; and one artificial limb centre.

COMMUNICATIONS

Communication has been a great problem in the Territory. Motorable roads exist between Aizawl, Silchar, Lunglei, Champhai, Vervek, W. Phailang, Demagri and Saiha. Length of roads: 3.253 kms., black topped: 1,197 kms.

National Highway: 404 kms. (under construction by widening); no. of vehicles (registered as on 30.9.1982): 3.845.

Post Offices: (a) With telegraphic facilities: 2; (b) without telegraphic facilities: 145.

GENERAL

On December 21, 1971, the Lok Sabha passed the Constitution (Twenty-seventh Amendment) Bill providing for a legislature and council of ministers for the Union Territory of Mizoram (former Mizo Hills district of Assam). The Bill provides special safeguards for the minority tribal groups. Mizoram was inaugurated by the Prime Minister Mrs. Indira Gandhi on January 21, 1972.

Rivers: Tlawng (Dhaleshwari), Tuiruang, Tuirial, Kaladan, Karnafuli, Tuivai and Tiau.

Lakes: Palak, Tamdil and Rengdil.

The People: The word Mizo means highlander. Mi means person and Zo means Hills. The Mizos include a variety of tribes—the Lushais, Pawis, Paihtes, Raltes, Phangis, Hmars, Kukis, Maras and Riangs and their home is in the Mizo Hills and some regions of Manipur, Tripura, Burma and Bangladesh. Other tribes in the region are the Chakmas and Tipras.

Among the Lushais the percentage of literacy is 86. The British missionaries introduced Christianity and scripted the Mizo language in Roman alphabet.

Press: There are 44 newspapers out of which 17 dailies, 13 weeklies and 12 monthlies are brought out regularly. Of these 29 are published from Aizawl, 7 from Lunglei and 8 from Chhimtuipui.

NAGALAND

Nagaland, comprising the former Naga Hills district and the former Mensang frontier division of the North-East Frontier Agency, came into being on December 1, 1963. It is a mountainous territory between the Brahmaputra valley of Assam and Burma.

CAPITAL: Kohima. **Area:** 7,209 sq. kms. **Population** (1981 census): 273,281.

Area of the State: 16,579 sq. kms.; **Population of the State:** (1981 census): 773,281; **Density:** 47 per sq. km.; **Sex Ratio:** 867 females per 1,000 males; **Literacy:** 41.99 per cent.

No. of Villages: 1,096.

State Boundaries: The State is bound by Assam in the west, Arunachal Pradesh in the north, Burma in the east and Manipur in the south.

District	Head Quarters	Area in sq. kms.	Population (1981 census)
Kohima	Kohima	7,209	273,281
Tuensang	Tuensang	5,466	152,276
Mokokchung	Mokokchung	3,852	104,257
Zunheboto	Zunheboto	—	60,641
Mon	Mon	—	78,745
Phek	Phek	—	70,675
Wokha	Wokha	—	53,271

State Languages: English is the official language of the State for administration and education. However, the common language used is Nagamese and English.

AGRICULTURE

Rice accounts for 80 per cent of foodgrain output with cotton, jute, mesta, sugar-cane, tobacco, potatoes and sweet potatoes also cultivated substantially. Average food production: 116,300 tonnes in 1980-81.

Steps are being taken to expand the high-yielding varieties programme, popularise manures and fertilisers and improve irrigation facilities in the State.

Seed-farms: At present there are 10 seed-farms and five fruit nurseries for distribution of improved seeds and plants to the farmers. The Agriculture Department of the State had drawn up a scheme to boost the production of coffee and cardamom at the foot-hills in Mokokchung and Dimapur. The Government also is planning to promote silkworm farming on a large scale.

Forest: Area: 2,876 sq. kms.; reserved forests: 286 sq. kms.; protected forests: 508 sq. kms.; unclassed village forests: 2,072 sq. kms.

Energy: The State's first hydro-electric project with an installed capacity of 1.5 MW, built in the catchment area of river Dzuza, was inaugurated on March 29, 1978. The Doyang Hydro-Electric Project has been approved by the Centre. It has a capacity of 105 MW. The State will have surplus energy once the project is begun.

INDUSTRIES (1982)

A paper and pulp company, a subsidiary of Hindustan Paper Corporation (Central Government Undertaking) is nearing completion. This is the first major industrial project in the State. The mill is expected to produce 33,000 tonnes (20,000 printing and writing and 13,000 industrial paper) of paper annually. It employs 1,500 people and provides 6,000 people seasonal employment.

A sugar mill also has been established at Dimapur. The Nagaland Industrial Development Corporation has set up two hotels at Dimapur and Kohima and an industrial estate at Mokokchung.

There are 3,157 small and cottage industries at present. Under the forest department a seasoning and treating plant has been set up at Dimapur which is expected to add a few saw mills and a joinery mill (for the manufacture of doors, windows, floor and ceiling boards, wall frames etc.) and a waste board mill for the manufacture of hard-board from saw-dust.

Minerals: Deposits of coal, limestone, oil and traces of gold and platinum have been found in the State. Vast reserves of high grade limestone were located at Nimi in Tuensang district (about 375 million tonnes) and in Phek district.

Labour: Cultivators: 203,341; agricultural labourers: 3,797; livestock, fishery, forestry, hunting, orchards and allied industries: 1,061; mining and quarrying: 76; household industry: 788; other than household industry: 2,086; construction: 3,277; trade and commerce: 4,725; transport, communication and storage: 2,388; other services: 38,474; non-workers: 254,335; total workers: 262,114.

EDUCATION (1981-82)

No. of Government institutions: Lower primary schools 1,072; M. E. schools 238; high schools 67; colleges (private 7, Govt. 3); training institutes for teachers 3; industrial training institute 1; adult literacy centres 171.

The first agricultural college in the State was opened in Ghaspani on October 20, 1978. This institute is affiliated to North Eastern Hill University.

PUBLIC HEALTH (1981-82)

General hospitals: 30; T.B. hospitals: 2; primary health centres: 17; sub-centres (under primary health centres): 76; school health service: 3; health education programme: 1; malaria eradication programme: 1; small-pox eradication programme: 1; B.C.G. teams: 3; T.B. clinics: 3; S.E.T. (leprosy): 10; V.D. clinics: 2; beds in hospitals: 1,242.

At present one medical unit covers an average of 176.12 sq. kms. and one hospital bed is available for every 466 persons.

COMMUNICATIONS (1982)

The railway covers only 8.04 kms. in the whole State and the main railway station is Dimapur, which is the gateway to Nagaland.

Roads: State Highways: 1,114 kms.; major district roads: 283 kms.; other district roads: 719; kms.; village roads: 3,204 kms.

GENERAL

Rainfall: The rainfall in Kohima is 1,488.7 m.m.; in Tuensang 2,686.2 m.m. and in Mokokchung 730.59 m.m.

Inter-State Power Transmission Lines: The Central Govt. has sanctioned a loan assistance of Rs. 19.2 million for the construction of Loktak-Dimapur power line, Rs. 90,000 for Dimapur-Mariani and Rs. 270,000 for Dimapur-Bokajan lines.

Tribes: The main tribes in the States are: Angami, Sema, Lotha, Ao, Rengma, Chakhesang, Sangtam, Konyak Chang, Phom, Yimchunger and Khiamngan.

ORISSA

Orissa, which lies in the tropical zone, was known as Kalinga in ancient times and is mentioned in the epics. It became a separate province in 1936. After independence, the neighbouring princely States following the States Merger (Governor's provinces) Order, 1949, merged with the State of Orissa on August 19, 1949.

CAPITAL: Bhubaneswar. **Area:** 65 Sq. Kms. **Population** (1981 Census): 219,211.

Area of the State: 155,707 Sq. Kms.; **Population of the State** (1981 Census): 26,370,271; **Density:** 169 per sq. km.; **Sex Ratio:** 982 females per 1000 males; **Literacy:** 34.12 per cent.

Districts*	Headquarters	Area in Sq. Kms.	Population (1981 Census)
Balasore	Balasore	6,311	2,252,808
Baudh Khandmals	Phulbani	11,094	717,280
Bolangir	Bolangir	8,913	1,459,113
Cuttack	Cuttack	11,142	4,628,800
Dhenkanal	Dhenkanal	10,828	1,582,787
Ganjam	Chhatrapur	12,556	2,669,899
Kalahandi	Bhawanipatna	11,772	1,339,192
Keonjhar	Keonjhar	8,303	1,114,622
Koraput	Koraput	26,961	2,484,005
Mayurbhanj	Baripada	10,418	1,581,873
Puri	Puri	10,182	2,921,045
Sambalpur	Sambalpur	17,516	2,280,976
Sundargarh	Sundargarh	9,712	1,337,871

*57 subdivisions and 27 municipalities.

Major Cities	Area in Sq. Kms.	Population (1981 Census).
Cuttack	60	269,950
Rourkela Steel Township	N.A.	206,821
Berhampur	76	162,550
Bhubaneswar	65	219,211
Puri	17	100,942
Sambalpur	34	110,282

N.A. — Not available

No. of villages: 51,639. Inhabited: 46,992; uninhabited: 4,647 (1971).

No. of Towns: 108 (including 6 cities).

State Boundaries: It is surrounded by the Bay of Bengal in the east, Madhya Pradesh in the west, Andhra Pradesh in the south, Bihar in the north, and West Bengal in the north east.

AGRICULTURE

It provides employment to about 75 per cent of the State's labour force and contributes about 66 per cent of the total income. High yielding programmes constitute the main agricultural strategy. Paddy is a major crop. The State's annual foodgrain requirement is about 3.7 million tonnes and the average production is 4.4 million tonnes. Leaving 0.3 million tonnes for seeds etc. the net availability comes to 4.1 million tonnes.

Land Reform: The most remarkable and vital provisions of the 1974 amendment act is that the ceiling has been fixed at 4.047 hectares, 6.07 hectares, 12,14 hectares and 18.21 hectares of a Class-I, and Class-II, Class-III and Class-IV lands instead of 8,094 hectares, 12.14 hectares, 24.28 hectares and 32.37 hectares respectively in the original act of 1973 for a family of excess of 5, subject to a total of 7,284 hectares. Over 300,000 landless farmers have been given free agricultural land in the State since the distribution of surplus land started in 1974. Nearly 211,174 hectares of Government waste land had been distributed among 307,623 people till April, 1979.

Fisheries: See chapter on "Fisheries".

POWER

Electricity (1980-81): Electricity generated 3,135 MKW H: Electricity consumed 2,445 MKW H; Installed capacity 914 MW; Percentage consumed by industries 85.7; per capita consumption 92.70 KW H; Number of villages electrified 18,804.

INDUSTRIES

A number of medium and large industries like a ferro-vanadium plant in collaboration with the Central Government, an automobile tyre and tubes plant, a nylon filament yarn plant, a calcium carbide plant, a sponge iron unit, a caustic soda and chrome plant, a dichromate plant, a carbonisation plant, a formed coke and pig iron plant and soda ash and ammonium chloride plant are proposed in the joint sector.

Private entrepreneurs are also promoting a paper plant, an aluminium ingot plant and a brewery unit. The Government of India are actively considering setting up a fertiliser plant, a nickel project and a sand separation plant to produce minerals from the rich sand of the Gopalpur coast of the State

The Industries in operation are textiles, cement, refrigerators, paper, glass, sugar, iron and steel, potteries, spinning mills, tube mill, refractories, chlorine and caustic soda, heavy structural and transmission towers, aluminium ingots, aluminium cables, prestressed concrete, cast iron products including spun-pipes, heavy equipments, ferrosilicon, ferro-manganese and fertiliser.

Industrial Development Agencies: (See chapter on State Government Undertakings).

LABOUR (as on 31-12-1981):

No. of employment exchanges: 77; No. of registrations: 227,939; No. of vacancies notified: 29,507; No. of placements effected: 17,840; No. of applicants in the live register: 494,832; No. of Trade Unions on register: 738; No. of members: 370,331; No. of industrial disputes: 485; No. of workers involved: 27,037; No. of mandays lost: 288,967; No. of working factories: 14,828; No. of workers employed: 73,324.

Panchayat Raj (1982): No. of *panchayat* samitis: 314; no. of gram *panchayats:* 3,830.

EDUCATION (1980-81)

No. of institutions—Universities: 5; arts, science and commerce colleges: 189; teachers' training colleges: 10; secondary training schools: 68; high schools: 2,424; M.E. schools: 7,313; primary schools: 32,603; teachers' training schools: 68.

Medical Education: Medical colleges 3; admission capacity 300. Nursing training centres 3; admission capacity 100. Pharmacist training centre 1; admission capacity 64.

Universities (1979-80)

1. Berhampur University, Berhampur (established under Orissa Act 21 of 1966)—has 16 affiliated colleges and 13 University departments.

2. Utkal University, Bhubaneswar—has 67 affiliated colleges and 21 teaching departments (including two law colleges, one at Cuttack and another at Bhubaneswar).

3. Sambalpur University, Sambalpur—has 28 affiliated colleges.

4. Orissa University of Agriculture and Technology, Bhubaneswar—has 4 constituent colleges.

5. Shri Jagannath Sanskrit Vishwavidyalaya, Puri.

PUBLIC HEALTH (as on Dec. 31, 1981)

No. of hospitals 302; no. of dispensaries 312; no. of special hospitals: T. B. 3, leprosy 3, maternity 4, paediatric 2, mental 1, infectious diseases 1; no. of clinics: T.B. 13, V.D. 14, dental 14; no. of blood banks 18; no. of hospital beds 13,407; no. of medical personnel—doctors 3,298, nurses 1,312, mid-wives and auxiliary nurses 2,952; doctor-population ratio 1:7,966; nurse-population ratio 1:20,024; nurse-bed ratio 1:10.

Indigenous system of medicine: Ayurvedic and unani hospitals 3; dispensaries 304; total 307; beds: 145; ayurvedic colleges 3; admission capacity 90; doctors 384.

Homoeopathic hospitals 1; dispensaries 241; beds 50; doctors 314; homoeopathic colleges 4; admission capacity 170.

COMMUNICATIONS (1980-81)

National highways: 1,631.15 kms.; State highways: 2,834.32 kms.; other surfaced roads: 120,497.69 kms

Ports: Major Port: Paradeep (Cuttack district). Biggest in the country it can receive bulk carriers of 60,000 tonnes. Minor ports: Chandbali (Balasore district) and Gopalpur (Ganjam district).

Railways (as on 31.3.1980): Orissa has 1,805 kms. of broad gauge and 143 kms. of narrow gauge railway line.

PRESS:

Leading dailies—*English:* The Eastern Times, Cuttack; The News of the World, Cuttack. *Oriya:* The Samaj, The Prajatantra, The Matrubhumi (all from Cuttack); The Pragatibadi, The Dharitri, The Swarajya, The Khabarkagaj, The Dinalipi (all from Bhubaneswar); The Hirakhanda (Sambalpur); The Dainika Asha, Berhampur, Ganjam; The Koshala, Sambalpur.

GENERAL

Important Rivers: The Suvarnarekha, the Vaitarni, the Brahmini, the Mahanadi, the Indravati, the Sabri, the Sileru, the Rushikulya and Budhavalanga.

Important Lakes: Chilka and Ansupa.

Minerals: Orissa's mineral potential is enormous. Her reserves of iron ore, manganese ore, chromite, limestone and graphite are among the very best in India. The minerals which are worked in large quantities include, besides those stated above, coal, dolomite galens, fire clay and china clay. Deposits of bauxite, vanadiferous magnetic, kyanite, asbestos, soapstone and mica also occur in the State.

Plan: Orissa's Sixth Plan outlay has been fixed by the Planning Commission at Rs. 15,000 million almost half of it being contributed by the Centre as its assistance.

Annual Plan: Approved outlay for the year 1983-84 is Rs. 3,450 million.

PONDICHERRY

(Union Territory)

The history of Pondicherry can be traced to Vedic times, but its comparatively modern links are with the French East India Company which established a settlement there in 1673. The French government handed over the administration of its territory to India in November, 1954. It became Union Territory. The coastal enclaves of Karaikal, Yanam and Mahe are part of the Union Territory.

CAPITAL: Pondicherry.

Area of the Territory: 492 Sq. Kms. **Population of the territory** (1981 census): 604,471; **Density:** 1,228 per sq. km; **Sex Ratio:** 985 females to 1000 males; **Literacy:** 54.23 per cent.

State Boundaries: The Union Territory consists of four municipalities and 11 communes (Panchayats). The capital is Pondicherry which is enclaved by South Arcot district. Karaikal region is enclaved by Thanjavur district, Mahe by Cannanore district, Kerala and Yanam by East Godavari district, Andhra Pradesh.

Districts		Area in '000 sq. kms.	Population (1981 census)
Pondicherry	..	0.29	444,417
Karaikal	..	0.16	120,010
Mahe	..	0.01	28,413
Yanam	..	0.03	11,631

No. of villages: 291.

State Languages: French, English, Tamil, Malayalam and Telugu.

ELECTRICITY

There is no generation of power in the Union Territory of Pondicherry. At present the entire power requirement is being met by purchasing power from the Tamil Nadu Electricity Board for Karaikal and Pondicherry regions, from Kerala State Electricity Board for Mahe region and from Andhra Pradesh Electricity Board for Yanam region.

Pondicherry has achieved cent per cent village electrification by the end of 1971-72.

To receive the share of power from Super Thermal Stations and as well as to meet the growing power demand with stabilised supply conditions a 230 KV sub-station is being set up at Uillianur with a direct 230 KV link from Neyveli. Also two new extra-high tension (110 KV/22 KV) sub-stations have already been commissioned one at Thirubuvanai and another at Marapalam and two more are under construction in Pondicherry region. One No. 66 KV/11 KV sub-station at Karaikal is under construction and is programmed to be commissioned by December, 1983. Another 66 KV sub-station is contemplated for Mahe region.

Electrification of huts under the scheme "One hut one bulb" has been taken up during sixth plan to improve the living conditions of hut dwellers in both urban and rural areas and so far 2,447 huts have been electrified.

The consumption of energy was 183.96 million units for the year 1982-83 with a peak demand of 46.69 M.W.

AGRICULTURE

Nearly 45 per cent of the population is engaged in agriculture and allied pursuits. 89 per cent of the cultivated area is irrigated. Rice is the main food crop. Other crops grown in small quantities are *ragi* and *bajra*. Sugarcane, groundnut and cotton are the principal cash crops.

The area and production of the main crops during 1981-82 are shown below:-

Crop	Area sown in hectares	Production in tonnes
(1) *Food Crops*		
Rice	28,500	99,000
Millet	3,265	14,500
Pulses	8,150	6,500
(2) *Oil Seeds*		
Groundnut	5,700	11,700
(3) Sugar cane	2,135	200,000
(4) Cotton	2,125	9,350 bales

Irrigation: Irrigation in Pondicherry is mainly through rain-fed tanks. There are about 87 tanks of which two are comparatively big. In Karaikal the irrigation system depends on Cauvery water and the network of canals which are under expansion programme.

LABOUR (As on 31st December 1982):

Number of registered trade unions: 144; number of workers employed in factories and workshops: 17,116; number of strikes: 35.

COMMUNICATION

Roads: Attempts are being made to link all villages with all-weather roads. It is expected that by the end of VI Plan all villages will be linked with all-weather roads.

Number of vehicles (as on 31st March 1982): 21,673.

HEALTH (1982)

No. of hospitals: 10 (Govt. 8, private 2); general hospitals: 4; maternity hospital: 1; T.B. sanatorium: 1; leprosy hospital: 1; E.S.I. hospital: 1; private maternity hospital: 1; private nursing homes: 2; E.S.I. dispensaries: 10 (including 1 part-time E.S.I. dispensary); primary health centres: 12; chest clinic: 1; T.B.:2; filaria control units: 2; leprosy control unit: 1; sub-centres: 71; no. of beds: 1,698; no. of doctors: 309; no. of nurses: 440; bed-population ratio: 1:250; doctor-population ratio: 1:1,100; leprosy S.E.T. centres: 26; ayurvedic clinics: 6; siddha clinics: 4; cholera control unit: 1; maleria control unit: 1; drug control unit: 1; mobile dental clinic: 1.

EDUCATION (1982-83):

	No. of Institutions	No. of students	No. of teachers
Pre-primary schools	97	4,399	124
Primary schools	324	42,195	1,357
Middle schools	103	44,137	1,388
High schools	61	33,658	1,258
Higher secondary Schools	18	16,783	582
Colleges			
Colleges (General)	9	5,122	600
Medical college	—	—	—
Law college	1	298	9
Professional and technical			
Polytechnic	1	449	67
Technical H. Sec. school	1	208	19
School for nurses	—	—	—
School for embroidery and needle work	1	308	7

CO-OPERATION (1982)

No. of societies 302; total membership: 195,014.

GENERAL

Annual Plan: Plan outlay for 1983-84 is Rs. 193.9 million. Sectorwise allocation under various heads (Rs. in million):

Agriculture and allied services: 32.347; Co-operation: 2.838; Irrigation, Flood Control and Power: 28.43; Industry and Minerals: 14.93; Transport and Communications: 20.41; Social and Community Services: 93.58; Economic Services: 0.53; General Services: 11.95; Total: 205.015.

Rivers: In Pondicherry: The Gingee 30.215 kms., the Pambayar 11.50 kms., the Guduvayar 13.50 kms., the Malatar 25.50 kms., the Ponniar 14.00 kms.

In Karaikal: The Nandalar 15.165 kms., the Nattar 12.60 kms., the Vanjiar 12.30 kms., the Noolar 14 kms., the Arasalar 11.76 kms., the Thirumalai Arasanar 10.65 kms., and the Pravadayanar 5.60 kms.

In Mahe: The Mahe river 114.4 m.

In Yanam: The Goringa 15.24 m., in width running for 4.00 kms. and the Godavary running for 8 kms. length in the Territory.

Lakes: Oussuteri 540.17 m.cft., and Bhour 200 m. cft.

PUNJAB

Punjab, the land of the five rivers, can trace its name to the times when it had links with Persia. "Panj" means five and "aab" means water. The history of the Punjab goes back to the coming of the Aryans in India. The British annexed Punjab in March, 1849 and Punjab constituted a separate province in 1937. With the partition of India, Punjab was divided between India and Pakistan as East Punjab and West Punjab. On Nov. 1, 1956, the princely States adjoining Punjab were formally absorbed into Punjab State. On November 1, 1966, Punjab was divided into three units: Punjab comprising the predominantly Punjabi-speaking areas, Haryana made up of the Hindi-speaking districts and Kharar tehsil with Chandigarh as capital. Punjab and Haryana are now separate States while Chandigarh is a Union Territory. The history of the Punjab reveals that the State played an important part in the history of India, but was also the meeting point of many cultures and peoples in Asia.

CAPITAL: **Chandigarh.** **Area:** 100 sq. kms.; **Population** (1981 census): 450,061. **Area of the State:** 50,357 sq. kms.; **Population of the State** (1981 census): 16,669,755; **Density** per sq. km. 331; **Sex Ratio:** 886 females per 1000 males; **Literacy:** 40.74 per cent.

No. of Villages: 12,188 (inhabited). **Towns:** 134.
State Boundaries: Pakistan in the west, Jammu & Kashmir in the north, Himachal Pradesh in the north-east, Haryana in the south and Rajasthan in the south-west.
State Language: Punjabi.

Districts	Area in sq. kms.	Population (1981 Census)
Amritsar	5,086	2,167,071
Gurdaspur	3,562	1,502,366
Hoshiarpur	3,879	1,230,848
Jullundur	3,401	1,723,699
Ludhiana	3,856	1,804,420
Bhatinda	5,551	1,294,957
Ferozepur	5,874	1,300,778
Patiala	4,584	1,561,547
Sangrur	5,107	1,405,320
Rupar	2,084	712,411
Kapurthala	1,633	537,156
Faridkot	5,740	1,429,182

Note: The names of the districts and district headquarters are the same.

Major Cities (Over 100,000 population).

Name	Area in sq. kms.	Population (1981 Census)
Amritsar	5,086	589,229
Ludhiana	3,856	606,250
Jullundur	3,401	405,709
Patiala	4,584	205,849
Pathankot	N.A.	108,777
Batala	N.A.	100,790
Bhatinda	5,551	127,450

IRRIGATION AND POWER PROJECTS

Out of the total geographical area of 5.04 million hectares, the net area sown in Punjab during 1981-82 (P) was 4.21 million hectares out of which 1.45 million hectares was irrigated by canal irrigation and the remaining 1.97 million hectares was mainly irrigated by tubewells. The gross area irrigated by Govt. canals tubewells and others for the year 1981-82 (P) was 5.96 million hectares.

The major projects which have been completed are Madhopur-Beas Link, Bhakra Nangal, Harike Project, Sirhind Feeder, extension of non-perennial irrigation in U.B.D.C. and remodelling of Shah Nahar Canal. The work of the following projects is under implementation: (a) Beas Project Unit I and its extension; (b) Beas Project Unit II and its extension; (c) Thein Dam; (d) Diversion of Shah Nahar Canal; (e) Dholbaha Dam; (f) Shahpur Kandi Project; (g) Low Dams in Kandi Area; (h) Anandpur Sahib Hydel Project; (i) Mukerian Hydel Project; (j) Ropar Thermal Plant Stage-I; (k) U.B.D.C. stage-II, III & IV; (l) Goindwal Hydel Scheme.

AGRICULTURE

The economy of the State is primarily agro-based and 70 per cent of its population depend upon agriculture. As against 57 per cent of India average, about 55 per cent of the area is under cultivation. Net area under cultivation is 83 per cent (see also Chapter on "Agriculture").

Production (in '000 tonnes during 1981-82): Wheat 85.53; maize 615; rice 37.55; oilseeds 170; sugarcane (gur) 582; cotton (bales) 127.5 million.

Land Ceiling: Seven hectares in case of irrigated land capable of producing two crops in a year, 11 hectares in case of irrigated land capable of producing one crop, 20.5 hectares in case of *barani* land and 21.8 hectares in case of *banjar* land.

ANIMAL HUSBANDRY & DAIRYING

There are 11 milk plants with total handling capacity of 1,037,000 litres per day. During the year 1982-83 and 1981-82, 37.5 million litres and 28.9 million litres of milk was procured respectively from the milk-shed area ot the State through 33 milk chilling centres and 2,660 milk producers co-operative societies.

The total milk production in the State for 1982-83 has been estimated to be 3.72 million tonnes. The contribution of buffaloes to total production is 79 per cent.

During 1982-83, 0.513 million and 0.135 million inseminations were performed in cows and buffaloes respectively against 0.501 million and 0.128 million during 1981-82. During 1982-83, 0.142 million cross bred calves and 038 million buffalo calves were born.

Special programme benefiting small/marginal farmers and agricultural labourers was started in the State during Fifth Plan period. Under this programme subsidy is being provided to the small/ marginal farmers and agricultural labourers for rearing cross-bred heifers, poultry and sheep on scientific lines.

On 31st March 1982, there were 769 veterinary hospitals, 467 dispensaries, 573 insemination units, 46 K.V. Block/A.I. centres, 38 sheep and wool extension centres and 58 poultry service centres.

INDUSTRIES

Major industries are: art silk, woollen and cotton textiles, fertilisers, bicycle parts, bicycles, sewing machines, sugar. flour mills, electrical appliances, automobiles, ancillaries, industrial goods, agricultural tractors, steel re-rolling, housing goods. machine tools and a large number of small-scale industries, dry battery cells, tanneries and vanaspati.

Major Public Sector undertakings are Fertilizer Corporation of India, breweries and pharmaceuticals.

There were 76,947 small-scale registered units in urban and rural areas in the State up to March, 1983. These units employed 454,310 persons and contributed Rs. 14,500 (P) million towards production.

There were 270 large/medium units in the State by the end of March, 1983 which provided employment to 142,695 persons and accounted for Rs. 14,780 million towards production. In case of small, large/medium units goods worth Rs. 1.45 million were exported during 1981-82.

There were 49,813 village industrial units in the State during 1980-81 which employed 83,590 persons and produced goods worth Rs. 287.4 million.

PUBLIC HEALTH (1-4-1982)

No. of hospitals: 255; no. of dispensaries: 1,691; no. of health centres: 130.

Population served per one as on 1st April 1982; Institutions: 8,275; doctors: 1,806; beds: 800; birth rate per thousand (1981) (P): 29.6; death rate per thousand (1981) (P): 9.1; infant mortality rate: 79.7; life expectancy at birth 1981-82: male: 58.5 years; female: 57.9 years.

EDUCATION

	Schools 31-3-81	Students 30-9-81
Primary	12,382	2,009,000
Middle	1,420	694,000
Higher Secondary	244	303,000

Colleges: No. of arts, science and commerce colleges: 161; technical and professional colleges: 23; teachers' training colleges: 18.

Universities: Guru Nanak University, P.O. Box 111, Amritsar 143001; Punjab University, Chandigarh 160017; Punjab Agricultural University, Ludhiana 140001; Punjabi University, Patiala 147001.

Expenditure on school education during 1982-83 was Rs. 114.40 million and provision for 1983-84 accounted was Rs. 120.00 million.

PRESS: (Leading Dailies)

Name	Town	Language
Tribune	Chandigarh	English
Punjab Kesari	Jullundur	Hindi
Vir Pratap	Jullundur	Hindi
Ajit	Jullundur	Punjabi
Hind Samachar	Jullundur	Urdu
Pratap	Jullundur	Urdu
Indian Express	Chandigarh	English
Punjabi Tribune	Chandigarh	Punjabi
Dainik Tribune	Chandigarh	Hindi

COMMUNICATIONS

No. of vehicles: 432,367; Two-wheelers: 213,849: three-wheelers: 6,698; cars: 27,689; jeeps: 5,804 taxis: 2,256; buses: 6,363; four-wheelers: 22,497; tractors: 146,332; trailers: 56,851; others 779.

Roads: National Highways: 964 kms. Roads maintained by Public Works Department (black top surfaced roads): 30,863 kms.; Water Board Maccadam (stone metal only): 830: total length: 32,657.

GENERAL

House Sites for Landless: During the year 1982-83, 297,046 landless persons in rural areas were allotted house sites of 100 sq. yards each, free. The Housing Board has completed 21,593 houses during 1982-83. 50,000 houses for rural persons will be constructed by March, 1985.

Rivers: The Beas, the Sutlej, the Ravi and the Saraswati.

Tourism: With a view to promoting tourism, a separate department of Tourism, Cultural Affairs, Archaeology and Museums was created in 1974. There has been a rapid expansion of tourist facilities at Pathankot, Nangal, Shahpur, Kandi and Anandpur Sahib. New tourist facilities have been created at Ropar, Sirhind, Phagwara, Ludhiana and Amritsar. Besides a 3-Star hotel has recently been commissioned.

The Punjab Tourism Development Corporation came into existence on 26th March, 1979. It is hoped that by mobilising institutional finance, it would be possible for the Corporation to undertake its projected programme of development.

Sixth Plan: Total Plan outlay: Rs. 41,250 million; provision for State Sector: Rs. 19,250 million; Central Sector projects: Rs. 22,000 million.

Annual Plan (1983-84): The outlay on the Annual Plan is Rs. 4,400 million.

RAJASTHAN

Rajasthan is India's "desert" State and one of the border States with Pakistan. It is an amalgamation of the old princely States of Rajasthan and was eight years in the making before it took its present form on November 1, 1956.

CAPITAL: Jaipur; **Area:** 206.06 sq. km.; **Population** (1981 census): 977,165; **Area of the State:** 342,214 sq. kms., **Population of the State** (1981 census): 34,261,862; **Density:** 100 Per sq. km.; **Sex ratio:** 923 females per 1,000 males; **Literacy:** 24.38 per cent.

No. of villages: 34,968 inhabited and 2,156 uninhabited.

State Boundaries: In the North and the north-east it is bound by Haryana, Delhi and Uttar Pradesh, in the east and south-east by Madhya Pradesh, in the south-west by Gujarat and in the west by Pakistan.

State Language: Hindi.

Major Cities:

Name	Area in Sq. Km. (1971)	Population (1981 census)
Jaipur	206.06	977,165
Jodhpur	230.18	506,345
Ajmer	45.40	375,593
Kota	141.23	358,241
Bikaner	38.09	256,057
Udaipur	59.21	232,588
Alwar	40.47	145,795
Bhilwara	119.11	122,625
Ganganagar	6.09	123,692
Bharatpur	19.88	105,274
Sikar	24.71	102.970

AGRICULTURE

The principal crops are wheat, jowar, bajra, maize and barley. The total cropped area (including double crop) in 1980-81 was 17.35 million hectares.

The target of foodgrains production for 1982-83 has been set at 8.7 million tonnes against 5.4 million tonnes in 1981-82.

Land Ceiling: 12.14 hectares for a family of five, if the family consists of more than five persons, every person in addition will get 2.42 hectares subject to a maximum of 24.28 hectares.

Livestock and Animal Husbandry: The milk yield of cows is currently estimated to be about 920 kg. per cow per year. Sheep constitute an important source of wealth, with a sheep population representing 21 per cent of the total sheep population of India. Rajasthan accounts for 45 per cent of all India wool production.

IRRIGATION

In 1981-82 the total irrigated area was 21.30 per cent of the total cropped area. Sixth Plan schemes were expected to increase the irrigated area by 4.95 million hectares.

Existence of ground water reserves spreading over an area of 41,000 sq. kms. with estimated reserves of 5,000 million cubic metres water every year has been discovered in the desert areas of the State.

INDUSTRIES

Large scale and medium (1977-78): Manufacture of food products including hydrogenated oils and vanaspati ghee 23, manufacture of beverages 2, manufacture of cotton textiles 15, manufacture of wool, silk and synthetic fabric textiles 9, manufacture of textile products (including wearing apparel other than footwear) 4, manufacture of paper and paper products and printing, publishing and allied industries 4, manufacture of rubber, plastics, petroleum and coal products 1, manufacture of chemicals and chemical products 13, manufacture of non-metallic mineral products 10, basic metals and alloys industries 16, manufacture of metal products and parts except machinery and transport equipments 1, manufacture of machinery, machine tools and plants except electrical machinery 7, manufacture of electrical machinery apparatus/appliances, supplies and parts 5, manufacture of transport equipments and parts 5, other manufacturing industries 2, electricity 87, water works and supply 2, repair services 10. *Production during 1982:* Cloth 52 million metres (p); yarn 35.23 thousand tonnes (p); cement 2,265.06 thousand tonnes; salt 737.86 thousand tonnes; ball bearings 9.079 million nos; sugar 22.97 thousand tonnes (p); fertilizers 323.57 thousand tonnes and spirits (all types) 9,681.91 thousand litres.

Small Scale Industries: The most important cottage and smallscale industries are tie and dye fabrics, wooden toys, *gota kinar*, hand made paper, gem-cutting, cloth printing, agriculture tools and implements, embroidered shoes, leather bags, water bottles and handloom weaving.

Industrial Estates: Industrial estates have been established at Jaipur, Makhupura (Ajmer), Bhilwara, Udaipur, Pali, Sikar, Jaisalmer, Jodhpur, Bikaner, Bharatpur, Kota, Alwar and Tonk.

No. of Districts: 27 (83 sub-divisions and 200 tehsils).

Name	Area in Sq. Km. (1971)	Population (1981 census)
Ajmer	8.479	1.440.366
Alwar	8.382	1.771.177
Banswara	5.037	886.600
Barmer	20.887	118.892
Bharatpur	5.054	1.299.073
Bhilwara	10.450	1.310.279
Bikaner	27.231	848.749
Bundi	5.550	586.982
Chittorgarh	10.856	123.249
Churu	10.829	1.179.466
Dungarpur	3.000	682.845
Ganganagar	20.629	2.029.968
Jaipur	14.000	3.420.574
Jaisalmer	38.401	243.082
Jalore	10.640	903.073
Jhalawar	6.216	784,903
Jhunjhunu	5.929	1,211,583
Jodhhpur	22.860	1,667,741
Kota	13.437	1,559,784
Nagaur	17.788	1,628,669
Pali	12.397	1,274,504
Sawai Modhopur	10.593	1,535,870
Sikar	7.732	1,377,245
Sirohi	5.135	542,040
Tonk	17.200	783,635
Udaipur	17.267	2,356,935
Dholpur*	3.000	585,059

*Newly formed in 1982.

(p)—Provisional.

LABOUR

No. of registered trade unions during 1982-83: 1,958: total membership: 310,282; no. of registered factories (1982): 7,000; total no. of workers in the State (1981 census): 10.351.113: workers as per cent of total population: 30.35: cultivators: 6.436.424: agricultural labourers: 763.188: other workers: 3.151.501: non-workers: 21.642.461.

Industrial Disputes (1982-83): Strikes and lock-outs 96: workers involved 41.819: mandays lost: 1.651.592.

Employment Exchange Statistics (1982-83): No. of employment exchanges 31: registration: 253.817: placements: 20.021.

EDUCATION (1980-81)

Higher secondary and secondary schools: 2,482; middle schools: 5,200; primary schools: 22,510; professional education and special education : 188.

Teachers: High/Higher secondary multipurpose schools: 39,828; middle/senior basic schools: 43,477; primary/junior basic schools: 47,645; schools for professional education and special education: 1,814.

Colleges: Colleges for general education: 125; colleges for professional and other education: 150.

Universities: *University of Rajasthan*. Jaipur; established: 1947; *University of Jodhpur*, Jodhpur; established: 1962; *University of Udaipur*, Udaipur; established: 1962; *Institution deemed as University:* Birla Institute of Engg. and Tech., Pilani.

PUBLIC HEALTH

No. of hospitals during 1982-83 172; T.B. hospitals and sanatoria 5; No. of T.B. beds 1,370; leprosy hospitals 2; beds 115; mental hospitals 2; beds 457; isolation hospitals 2; beds 259; other hospitals 161; beds 16,932; total No. of beds 19,133 (dispensaries 858; primary health centres 236; beds 2,271; mobile surgical unit beds 500).

Medical Practitioners (1980-81): Civil assistant surgeons 2.656; specialists 350; staff nurses 825; midwives 3.308; compounders 3.299.

Non-allopathic hospitals and dispensaries (1980-81): Ayurvedic and unani hospitals 42; no. of beds 800; dispensaries 2.551; Vaidyas and hakims 2.744; compounders and nurses 2.623.

COMMUNICATIONS

Total no. of vehicles (1982): 377.121; private cars and jeeps: 45.512; motor cycles, autocycles and scooters: 190.615; taxis and contract carriages: 1.576; stage carriers: 16.710; public and private carriers: 40.549; tractors and trailers: 80.313 : others 1.846.

Motorable Roads (1982-83): Painted roads: 28.844 kms; metalled roads: 3.966 kms; gravelled roads: 9.992 kms; fair weather and dressed up tracks: 1,099 kms; national highways: 2,521 kms; total length of roads: 46,422 kms.

Railways: Rajasthan is served by 5,617.82 kms. of Railways, out of this nearly 4,856.5 kms. are in metre gauge, 674.54 kms. in broad gauge and 86.78 kms. in narrow gauge.

Press: Dailies—*Rajasthan Patrika*, *Rastradoot*, *Navjyoti*, *Nyay*, *Adhikar*, *Kook*, *Young Leader*, *Jaltedeep*, *Amar Rajasthan*, *Tej*, *Socialist Samachar* etc.

GENERAL

Important Rivers—The Luni, the Chambal, the Banas, the Mahi and the Sabarmati. Tributaries of Luni—the Bandi and the Sarasvati. Tributaries of the Chambal—the Kali Sindh and the Parbati. Tributary of the Banas—the Berach.

Lakes: (Name and location) Sambhar (Jaipur), Silisedh (Alwar); Jai Samand (Udaipur), Fateh Sagar (Udaipur), Pichhola (Udaipur).

Housing: A provision of Rs. 387.223 million has been made for the schemes under housing sector for the Sixth Plan (1980-85) under

LIGH and MIGH. It is envisaged to construct 6,292 houses and 1,100 houses respectively. A provision of Rs. 80 million has also been made for acquisition and integrated development of land in important cities of the state particularly Jaipur.

The Rajasthan Cooperative Housing Finance Society has a target of financing construction of 10,000 houses during 1980-85. The Housing Board will construct 57,368 houses during the Sixth Plan period. Of these 54 per cent will be for economically weaker sectors, 21 per cent for the low income groups, 21 per cent for middle income groups and 4 per cent for higher income groups.

Minerals: Rajasthan occupies the eighth place in mineral production. The total value of production in 1978 was Rs. 552 million and in 1979 Rs. 578 million and in 1980 Rs 533 million. The State has rich mineral potentiality of lead concentrate, zinc concentrate, emerald, tour-maline and wollastonite. This sector provided employment to 25,690 persons per day on an average in 1980. The State produced 263.6 thousand tonnes of soap-stone during 1980.

Annual Plan: (1983-84): Approved outlay for the year is Rs. 4,160 million. The year 1983-84 is the fourth year of Sixth Plan (1980-85). The plan allocation for this year is 22.35 per cent more than the previous year (1982-83) and broadly conforms to the overall sectoral distribution laid down in the sixth plan.. Following the same priorities the share of social and command development sector has increased from 7.28 per cent of the total plan allocation for 1982-83 to 20.29 per cent in 1983-84.

SIKKIM

Sikkim, a tiny mountainous State but strategically situated in the eastern Himalaya region, is the 22nd and the smallest State of the Indian Union. It faces Nepal on the west, Bhutan in the east, Tibet on the north and West Bengal in the south. It became a State of the Indian Union under the Constitution (Thirty-sixth Amendment) Act, 1975 which came into force with retrospective effect from April 26, 1975. Historically, it took shape as a political entity in the 17th century under a Buddhist king who called himself Gyalpo.

CAPITAL: Gangtok. **Population:** 36,768 (1981 census).

Area of the State: 7,208 sq. kms.; **Population of the State:** (1981 census): 315,682; **Density:** 44 per sq. km.; **Sex ratio:** 837 females per 1,000 males; **Literacy:** 34 per cent.

Districts: Four—Gangtok, Gayzing, Namchi and Mangan.

Formerly a princely State in the eastern Himalayas and a protectorate of India, Sikkim opted by a referendum on April 14, 1975, to join the Indian Union. By the Constitution (Thirty-sixth Amendment) Act, 1975, Sikkim became the 22nd State on April 26, 1975.

AGRICULTURE

Main crops are cardamom, oranges, apples, potatoes, maize, millet, ginger, soyabean, wheat, barley, paddy, pulses and vegetables, covering 87,493 hectares.

There are nine regional centres carrying out experimental research and extension work functioning at Gyalshing, Hillay, Burmiok, Nazitam, Pakyong, Mangan, Lachung, Majitar and Namchi. They are assisted by the Indian Council of Agricultural Research Centre stationed at Tadong. A seed-processing unit equipped with uptodate machinery is under construction at the regional agricultural demonstration farm at Majitar at a cost of Rs. 2.1 million.

Forests: Forests occupy about 36 per cent of the land area.

POWER

Electricity: There are four mini-hydel power stations at Mangan, Rimbi, Rohtak and Sangkhola. The lower Lagyap hydel project with a capacity of 12 MW power constructed by Central Water Commission has gone into production. A major project in West Sikkim is in the offing.

INDUSTRIES

There is a distillery at Rangpo, a fruit preservation factory at Singtam, a jewel bearing factory producing industrial jewels at Gangtok, a tannery at Majitar and a watch assembly unit set up in collaboration with HMT, Bangalore. Sikkim Mining Corporation produces zinc, copper, graphite, lead, gold and silver. A Rs. 5 million Roller Flour Mill set up recently has gone into production with a capacity of 30-tonnes per day. Three major cigarette factories have been set up.

A number of facilities are being given to new entrepreneurs, such as subsidy on transportation of raw materials, subsidy on interest, concession in sales tax and marketing assistance, as the State has been declared as industrially backward. As a result a number of small scale industrial units have come up manufacturing consumer items like washing soaps, leather goods, coke briquettes, matches and candles.

There has been considerable expansion of dairy industry with the help of National Dairy Development Corporation.

Industrial Training Institute at Rangpo provides vocational training to local youngsters in seven different trades. The Government has also initiated a programme to organise vocational training camps at various places for knitting, tailoring and cutting.

The Sikkim Industries Licensing Bill, 1982, which stipulates participation by the Government and the people domiciled in Sikkim in industries to be set up in the State, was passed by the Assembly on September 22, 1982.

Handicrafts: Local crafts include carpet weaving, handmade paper, wood carving, handloom weaving, cane and bamboo work.

EDUCATION

There are 438 primary and 11 higher secondary schools, 99 junior high schools and high schools providing education to about 71,201 children. There is also a primary teachers' training institute. A University College started functioning in 1976. An evening Law College has also been set up in 1980. Education is free for both boys and girls up to Class XII. Supply of textbooks is free up to Class V and 50 per cent Government subsidy has been extended on textbooks to all students up to the terminal stage of school.

PUBLIC HEALTH

There is a Central Hospital with 250 beds at Gangtok, inclusive of 70 T.B. beds. There are four district hospitals providing 225 beds. All the districts have 10 T.B. beds each. 16 primary health centres, each with 10 beds, 62 primary health sub-centres and 3 mobile dispensaries are in existence. In two districts, tuberculosis teams are functioning besides the main T.B. centre at Gangtok. A State family planning and MCH bureau is functioning. There are 81 doctors and 6 dental surgeons in service. 32 Grade 'A' nurses and 212 ANMs are in employment. All treatment and diet are free.

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COMMUNICATIONS

There are 1,201 kms. of metalled roads and 18 major bridges. Public transport is nationalised. The nearest airport is at Bagdogra (121 kms.) and the nearest railway station is Siliguri (112 kms.).

GENERAL

Tourism: A 78-bed tourist hostel at Gangtok and a 50-bed tourist lodge at Pemayangtse (W. Sikkim) have been constructed. There is also a proposal to construct a chain of tourist lodge complexes at Gangtok, Rangpo, Nayabazaar, Yoksum and Singhik and a tourist village at Rangpo.

Religion: Mainly Mahayana Buddhism and Hinduism. There are a few Christians and Muslims.

Rivers: The main river is the Tista, which is formed by the confluence of the Lachen and the Lachung Chu in the north of Sikkim.

Five Year Plan (1980-85): A final outlay of Rs. 1,220 million has been fixed for the Five Year Plan in Sikkim.

Annual Plan: 1983-84: Rs. 305 million.

TAMIL NADU

Tamil Nadu, a very ancient land whose history goes back to 6,000 years, is the 11th largest State in the Indian Union. It represents the nucleus of Dravidian culture. On January 14, 1969, Madras State changed its name to Tamil Nadu, but Madras continues to be its capital.

CAPITAL: Madras. **Area:** 128 sq. kms. **Population:** 4.277 million.

Area of the State: 130,057 sq.kms. **Population of the State** (1981 Census): 48,297,456.

Rate of increase in population: 1.72 per cent per annum. **Sex Ratio:** 978 females per 1,000 males. **Density:** 371 per sq. km. **Literacy:** 45.78 per cent.

Birth rate for 1979 (Rate per thousand of estimated mid-year population): 20.58

Death rate for 1979 (Rate per thousand of mid-year population): 6.71.

Infant mortality rate for 1979 (Rate per thousand of live births): 39.40.

Districts with Headquarters in brackets, Area in thousand sq. kms. and Population respectively: Madras City (Madras) 0.1; 2,469,449; Chingleput (Kanchipuram) 7.9; 2,907,599; North Arcot (Vellore) 12.3; 3,755,797; South Arcot (Cuddalore) 10.9; 3,617,723; Dharmapuri (Dharmapuri) 9.6; 1,677,775; Salem (Salem) 8.6; 2,992,616; Coimbatore (Coimbatore) 15.7; 4,373,178; The Nilgiris (Udhagamandalam) 2.5; 494,015; Madurai (Madurai) 12.6; 3,938,197; Tiruchirapalli (Tirunelveli) 14.3; 3,848,816; Thanjavur (Thanjavur) 9.7; 3,840,732; Ramanathapuram (Madurai) 12.6; 2,860,207; Tirunelveli (Triunelveli) 11.4; 3,200,515; Kanyakumari (Nagercoil) 1.7; 1,222,549 (Total 14).

Major Cities: With area (in sq. kms.) and population*: Madras City: 128—2,469,449; Madurai: 20.92—549,114; Coimbatore: 23.49—356,368; Salem: 19.99—308,716; Tiruchirapalli: 21.57—307,400; Tuticorin: 13.38—155,310; Nagercoil: 24.29—141,288; Thanjavur: 24.29—140,547; Vellore: 10.54—139,082; Dindigul: 11.77—128,429; Singanallur: 8.65—112,206; Tirupur: 11.92—113,302; Kumbakonam: 11.54—113,110; Kanchipuram: 11.37—110,657; Tirunelveli: 15.33—108,498; Erode: 8.44—105,111; Cuddalore: 27.79—101,335.

No. of towns (1981): 211. **No. of urban agglomerations:** 34.

State Language: Tamil. Other languages spoken, Telugu, Malayalam, Kannada, Urdu, English, Hindi and Gujarati.

Situation: The State lies between 8°5' and 13°35' of northern latitude and 76°15' and 80°20' of eastern longitude.

State Boundaries: Bound in the east by Bay of Bengal, south by the Indian Ocean, west by Kerala State and north by Andhra and Karnataka States.

AGRICULTURE (1980-81)

Area and Production of Principal Crops (area in '000 hectares and production in '000 tonnes): Paddy 2,112; 3,975 (in terms of rice); millets and other cereals: 1,484; 1,422; sugarcane: 136; 1,351 (in terms of gur); groundnut: 866; 702; gingelly seed: 96; 29; Cotton: 246; 322 (bales of 170 Kg.).

Livestock and Animal Husbandry (1977 Census): Buffaloes: 3,077,678; sheep: 5,289,242; goats: 4,202,093; pigs: 678,123; donkeys: 86,543, poultry: 14,347,195.

Veterinary institutions (1981-82): Veterinary hospitals: 50; veterinary hospital-cum-key village centres: 3; veterinary dispensaries: 552; veterinary dispensary-cum-key village centres: 73; clinical laboratories: 13; rinderpest vigilance units and checkposts: 23; rinderpest squads: 17.

Dairy Development (1981-82): Main dairies: 3; feeder dairies: 2; co-operative dairies: 7; milk chilling plants: 22.

Fisheries (1980-81): Total coastline of the State: 1,000 kms.; marine fishing villages: 402; marine fish production: 227,000 tonnes; Inland fish production: 165,000 tonnes; freezing plants: 32; marine fisheries training centres: 6.

Land Ceiling: Reduced from 24.28 standard hectares to 15 standard hectares per family.

Land Utilisation:

Classification of Area	Area in '000 hectares† 1979-80
Total geographical area	13,037
Forests	2,021
Barren and uncultivable lands	603
Land put to non-agricultural uses	1,713
Cultivable waste	336
Permanent pastures and other grazing lands	157
Land under miscellaneous tree crops and groves not included in the net area sown	199
Current fallow lands	1,305
Other fallow lands	427
Net area sown	6,232
Area sown more than once	1,485
Total cropped area	7,717

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*Figures relate to 1971.

†According to village papers.

Forests (1980-81): (Area in hectares): Total forest area: 2,189,191; Reserved forests and reserved lands: 1,139,253; Unclassed: 49,938.

IRRIGATION AND POWER (1979-80)

Irrigation: Net area in hectares irrigated by: Government canals: 931,690; private camals: 752; tanks: 986,201; wells including tube wells: 1,117,452; other sources: 38,049; total net area irrigated: 2,984,144; area irrigated more than once: 998,564; gross area irrigated: 3,982,708.

Electricity (1980-81): Installed capacity (in megawatts) and generation (in million units) by board: **Hydro:** 1,369; 4,925.33; **Thermal:** 960; 2,445.95; Power purchased from other sources: 3,541.64 million units; Power supplied to other States: 262.93 million units.

Consumption (Mu.): Agriculture: 2,286; industrial: 4,099; commercial: 619; domestic: 769; others: 812.

Rural Electrification (1981): No. of towns, villages and hamlets electrified: 63,473.

INDUSTRIES

Labour (1981): No. of registered trade unions: 3,840; no. of strikes: 253; no. of workers affected: 135,638; no. of man-days lost: 3,026,850; no. of lockouts: 35; no. of workers affected: 50,806; no. of man-days lost: 1,097,171.

No. of working factories (1981): 9,391; workers employed in all the factories submitting returns: 593,182; estimated average no. of workers in factories not submitting returns: 56,417; estimated total no. of workers employed in all factories: 649,599.

Employment Exchanges (1980-81): District employment, sub-employment and special offices: 34, registrations during the year: 487,563; placements during the year: 51,350; no. on the live register at the end of the year: 1,143,049; no. of vacancies notified: 75,713.

PUBLIC HEALTH (1981-82)

No. of hospitals (including allopathic, Indian medicine and homoeopathy): 377; no. of dispensaries (including allopathic, Indian medicine and homoeopathy): 1,188; primary health centres: 384; other medical institutions: 237; Registered doctors: Allopathic: 35,961; Indian medicine: 24,608; homoeopathy: 15,329; registered dentists: 502; nurses: 22,759; midwives: 29,939; auxiliary nurse midwives: 4,780; registered pharmacists: 6,614; registered health visitors: 557.

Family Welfare (1981-82)*: Family welfare institutions: 917; sterilisation operations performed during the year: 167,912; I.U.C.D.: 32,991; users of conventional contraceptives: 58,554; users of oral pills: 4,045.

EDUCATION (1981-82)

Universities: Madras University, Chepauk, Madras 600005; Annamalai University, Annamalainagar, Chidambaram, South Arcot Dist., Madurai; Kamraj University, Madurai; Tamil Nadu Agricultural University, Coimbatore; Peraringar Anna University of Technology, Madras; Bharathiar University, Coimbatore; Bharatidasan University, Trichy; and Gandhigram Rural Institute, Gandhigram, Madurai, is an Institute deemed-to-be an university.

COMMUNICATIONS (1980-81)

Length of motorable roads (in kms.): Surfaced: 68,962; unsurfaced: 52,390.

Road Transport: Motor vehicles: Commercial: 82,845; non-commercial: 238,255.

Railways (1981-82): Route length: 3,887; track length: 4,594.

Posts and Telegraphs (1980-81): Post and Telegraph offices: 3,554; post offices: 11,737; telegraph offices: 43; broadcast receivers (1981): 1,155,347; television sets (1981): 83,954; no. of telephones in use: 267,244; no. of public call offices: 2,592.

INDUSTRIAL PRODUCTION, 1981

Name of the product	Unit	Production
Sugar (Refined)	Tonne	4,79,165
Hydrogenated Oil (Vanaspathy)	..	24,305
Refined Oil	..	3,484
Tea (Processed)	..	71,595
Coffee (Cured)	..	12,606
Cotton Yarn	..	2,17,564
Cotton Woven piece goods	'000 metres	1,44,985
Printing paper	Tonne	30,129
Tyres (All types)	'000 No.	5,819
Tubes (All types)	..	3,175
Superior Kerosene	Tonne	3,49,538
Highspeed Diesel Oil	..	6,44,863
Ammonia	..	5,57,183
Caustic Soda	..	86,725
Urea	..	8,94,564
Super Phosphate	..	1,65,492
Mixed Fertilisers	..	9,01,877
Pesticides	..	18,759
Paints and Enamels	Kg.	77,23,888
Varnishes	Litre	2,69,043
Safety Matches	'000 Gross Boxes	87,061
Refractories	Tonne	1,69,939
Cement	'000 "	3,458
Asbestos cement product	Tonne	75,959
Coated Abrasives	Reams	59,946
Bonded Abrasives	Tonne	2,769
Iron and Steel (Metal)	..	1,59,513
Casting (Iron and Steel)	..	59,191
Non-ferrous (Metal)	..	18,447
Metal containers, Caps and Closures	..	16,016
Tractors	Nos.	8,952
Earthmoving Machinery	..	104
High pressure Boilers and Fittings	Tonne	1,07,521
Diesel Engines	No.	63,371
Frames	..	1,638
Power Driven pumps	..	1,82,430
Typewriters	..	39,960
Transformers	KVA	6,04,458
Electric Motors	No.	1,92,735
Dry Cells	'000 "	1,17,337
Railway Coaches	No.	727
Railway Wagons	..	860
Completed Motor Vehicles	..	4,459
Motor Vehicle Chassis	..	14,942
Body Building	..	2,389
Motor Cycles	..	48,858
Bicycles	..	5,69,624
Synthetic Gemstones	Kg.	13,378

GENERAL

Press: Dailies 72; weeklies 120; tri-weeklies 6; fortnightlies 125; monthlies 500; quarterlies 84; others 42; annuals 12.

Leading dailies with place of publication:

The Hindu (E): Madras, Madurai & Coimbatore; *The Indian Express* (E): Madurai & Madras; *Daily Thanthi* (T): Madurai, Tiruchirapalli, Madras, Tirunelveli, Coimbatore, Cuddalore & Vellore, Salem and Bangalore; *Dina Malar* (T): Tirunelveli, Tiruchirapalli & Madras; *Dinamani* (T): Madurai & Madras; *Malai Murasu* (T): Tirunelveli, Tiruchirapalli, Madurai, Coimbatore, Vellore, Madras & Salem; *Murasoli* (T): Madurai & Madras; *Alai Osai* (T): Madras; *Anna* (T): Madras; *Dinakaran* (T): Madras; *Lokavani* (M): Madras; *Musalman* (U): Madras.

(E) English. (T) Tamil. (M) Malayalam. (U) Urdu.

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*Provisional.

EDUCATIONAL INSTITUTIONS (1981-82)

Category	No. of Institutions	No. of Students	No. of Teachers
Schools			
Primary schools	27,767	447,200	113,036
Middle schools	5,556	254,000	66,221
High schools	2,021	723,000	30,180
Anglo-Indian high schools	18	12,000	398
Matriculation high schools	50	22,000	821
Central high schools affiliated to Central Board of Secondary Education etc.	79	37,000	1,881
Higher secondary schools	1,288	1,445,000	53,734
Anglo-Indian higher secondary schools	26	28,000	891
Matriculation higher secondary schools	33	31,000	1,252
C.B.S.E. and I.S.C. higher secondary schools	187	65,000	2,873
Colleges			
Govt. Colleges	52	171,140	4,031
Aided Colleges	135	N.A.	8,775
Total	187	171,140	12,806
Other Colleges			
College of education	23	2,935	231
Physical education	3	330	33
Oriental colleges	15	1,665	143
Schools of social work	2	240	18
Rural higher institutions	1	623	76
Music colleges	2	429	43
Total	46	6,272	544
Professional Institutions			
Medical colleges	12	9,191	
Agricultural colleges	2	1,700	
Law colleges	4	3,474	
Veterinary colleges	1	740	
Engineering colleges	14	15,497	
Polytechnics & special institutions	59	21,366	
Vocational higher secondary schools	14	1,680	

Minerals: Salt, limestones, magnesite, gypsum, crude, mica, bauxite, limenite, fireclay, lignite, iron ore, etc.

Hills: The important hill ranges are the Western Ghats (Palani Hills in Madurai district and Annamalai in Coimbatore district form part of this range), the Eastern Ghats, Shevroy Hills, Javadi Hills, the Kairayans and the Pachaimalai. The Palghat gap averaging 24 kms is the only marked break in the Western Ghats.

Important Rivers: The Ponnaiyar, Palar, the Vaigai and the Tambaraparani, Cheyyar, Meyar, Bhavani, Amaravati and Chittar.

Major Lakes: (Capacity more than 14,000 million litres) Chambarampakkam, Madurantakam and Red Hills lakes (Chingleput District); Veeranam Tank (South Arcot District); Kaveripuk (North Arcot District); Ramnad and Rasimangalam Tanks (Ramanathapuram District).

Annual Plan (1983-84): The outlay on the Annual Plan is Rs. 8,934.6 million.

TRIPURA

Tripura, the second smallest State, was formally declared a Union territory on November 1, 1957, but raised to the Status of a State on January 21, 1972. It is surrounded for the most part by Bangladesh.

CAPITAL: Agartala.

Area of the State: 10,491 sq. kms. **Population of the State:** (1981 Census): 2,053,088. **Density:** 196 per sq. km. **Sex Ratio:** 948 females per 1,000 males. **Literacy:** 41.58 per cent.

No. of Tehsils: 177. **No. of Sub-Divisional Towns:** 10. **No. of Villages:** 5,215.

(This former Union Territory became a full fledged State on January 21, 1972.)

Districts	Area in sq. kms.	Population (1981 census)
North Tripura District	3,541	541,248
West Tripura District	3,359	976,252
South Tripura District	3,577	535,558

State Boundaries: The State is bound in the North-West, West, South and South-East by Bangladesh and in the North-East by Assam and Mizoram.

State Languages: Bengali and Kakbarak.

AGRICULTURE

About 54.5 per cent of the land is under forest. Only about 24.3 per cent area is available for agricultural use. The principal crops are paddy, wheat, jute, mesta, sugarcane, potato and oil seeds. Due to the acceptance of modern technology by cultivators, the overall production of cereals increased by about 19.9 per cent in the year 1982-83. During 1982-83 an area of 177,000 hectares was sown more than once as against 169,000 hectares in the previous year. Due emphasis is also being given for development of horticulture in the State.

Forest: Total area of Reserve Forest and proposed Reserved Forest is 3,862 sq. km. which is 37 per cent of the land area. Plantations have so far been raised over 82,669 hectares. 1,444 hectares have been covered under social forestry programme benefiting 4,148 families up to 1982-83.

Rubber plantation has also been taken up extensively in Tripura and up to 1982 an area of 3,337.02 hectares has been planted.

INDUSTRY

Tea: There are 49 registered tea gardens in Tripura covering an area of 5,527 hectares and producing 4 million kgs. of tea per year. This Industry has been employing about 10,000 workers. Five Cooperative Societies have taken up new plantation in different places of Tripura. Tripura Tea Development Corporation, a Government of Tripura undertaking has also started fresh tea plantation under the programme for bringing additional land under tea plantation in the State.

Minerals: The wells drilled in the State have indicated presence of superior quality of natural gas. Deposits of white and grey coloured plastic clay, silica and limestone have also been located.

Jute Mill: A jute mill has been set up in Agartala under Public Sector. It produces about 1,500 tonnes of jute products.

Village and Small Industries: The small scale industries, functioning in the Private and Public Sector are aluminium utensils, steel furniture, washing soap R.C.C. spun pipes, tyre retreading, automobiles servicing and repairing, rubber solution, grease, phenyl, leather goods, polythene tubular, film, plywood, fruit-canning, oil mill, roofing tiles, chalk crayons, pharmaceuticals, fountain pen ink, ice factory, wooden furniture, saw mill, umbrella handles, spun pipes, wire nail, truck and bus body building, welding workshop, printing press, book binding, manufacture of note books, rice mill, cotton ginning mill, curry powder, steel trunks and bucket manufacturing, spray painting, block processing, dyeing etc.

A steel re-rolling mill with a capacity of about 6,000 m.t. of rolled steel products such as rods, bars and light angle iron has been established.

Handloom: In 1982-83 handloom products worth Rs. 100 million were produced. Nine pilot centres have been set up for imparting training in improved techniques. In 1982-83 it sold products valued at Rs. 20 million. A design centre on handicrafts is functioning at Agartala.

Tripura Khadi and Village Industries Board has been running Units for manufacturing of safety matches, carpentry, blacksmithy, *Ghani*, *Ambar Charkha* etc. and rendering financial and other assistance in various village Industries.

Sericulture Industry: At present about 4,000 persons are engaged for rearing of worms. The land under cultivation of mulberry plants is about 364.22 hectares and the production of cocoons is estimated to be 6,000 kg. per year.

Tripura is famous for its beautiful handicrafts. About 5,000 persons are engaged in the industry at present.

IRRIGATION AND POWER

Irrigation: The irrigation potential by permanent schemes has been increased from 2,831 hectares on 1st April 1978 to 10,911 hectares by March 1983. A target of 13,500 hectares has been fixed for completion during the Sixth Five Year Plan. In medium irrigation sector three projects on rivers Gumti, Khowai and Manu estimated to cost Rs. 10,000 million have been approved by the Planning Commission.

Power: 1,524 villages have been electrified and 875 pump sets have been energised upto April 1983. The installed capacity of the State is 10 MW against a demand of 17 MW. The State is importing power through 132 KV line from Assam. The present 10 MW installed capacity of the State is expected to be raised to 20 MW by 1980-85.

EDUCATION (1978-79)

Category (1977-78)	No. of Institutions	Students
Nursing (including Balwadi Centres)	575	50,000 *
Primary/Junior Basic Schools	1,885	209,836
Middle/Senior Schools	436	75,000 *
High Schools/H.S. Schools	196	27,440
Colleges of General Education	9	3,334
Colleges for professional/Vocational Institution	11	1,885
Social Education Centres	900	18,000 *

* Approximate

PUBLIC HEALTH (1983)

Hospitals: 11; rural hospitals: 3; dispensaries: 129; P.H.C.: 25; doctors: 382; nurses: 570; pharmacists: 232; beds: 1,534; ayurvedic dispensaries: 2; homoeopathic dispensaries: 11; dental clinics: 3; chest clinic: 1; E.N.T.: 1; V.D. & Skin disease clinic: 1; psychiatric clinic: 1; orthopaedic clinic: 1; leprosy control units: 2; S.E.T. centres: 20; urban leprosy clinics: 2; re-constructive surgery unit: 1; ante-natal clinic: 1; eye clinic: 1.

COMMUNICATIONS (as on March 31, 1983)

Motor cycles/scooters: 1,678; lorries: 3,124; taxis: 340; jeeps: 569; TRV (Matador etc): 20; All Indian Tourist Buses: 11; State carriages: 550; private cars (jeep/taxis/van): 2,171; tractors: 51; trailers: 644; auto vehicles: 105; others: 83; Total: 9,346.

Railways: The North-east Frontier Railway has three stations in Tripura, the last being Dharmanagar.

There is one airport (Agartala), and there are regular scheduled services to Calcutta therefrom.

GENERAL

Press: Leading Dailies: *Ganaraj* (Bengali), Agartala; *Jagaran* (Bengali), Agartala; *Dainik Sambad* (Bengali), Agartala; *Tripura Darpan* (Bengali), Agartala; *Bhabi Bharat* (Bengali), Agartala; *Promode Barta* (Bengali), Agartala; *Syandan* (Bengali), Agartala; *Ganadut* (Bengali), Agartala; *Vivek* (Bengali), Agartala; *Manush* (Bengali), Agartala; *Daily Desher Katha* (Bengali), Agartala; *Ganasambad* (Bengali), Agartala; *Darsan Barta* (Bengali), Agartala; *Ganadut* (Bengali), Dharmanagar, etc.

Rivers: The Gumti, The Khowai, the Manu, The Haorah, The Muhuri.

UTTAR PRADESH

In area the fourth, Uttar Pradesh, is the most populous State of the Indian Union. In the later Vedic age it was called Brahmarshi desa or Madhya desa. *Varaha Purana* is associated with Mathura. U.P. is said to have been the inspiration of *Ramayana* and the *Mahabharata* for *Ramayana* alludes to the royal family of Kosala and the *Mahabharata* refers to the royal family at Hastinapura, both in Uttar Pradesh. The British constituted Agra and Oudh into one province called the United Provinces of Agra and Oudh and shortened to United Province in 1935. After Independence in January 1950, it was renamed Uttar Pradesh.

CAPITAL: Lucknow. **Area:** 103.60 sq. kms. **Population:** 1.037 million.

Area of the State: 294.413 sq. kms. **Population of the State:** 110.385.874. **Density:** 377 per sq. km. **Sex Ratio:** 886 females per 1.000 males; **Literacy:** 27.40 per cent.

No. of Tehsils: 245. **No. of Towns:** 704. **No. of Villages:** 112.561.

Districts	Area (Sq. Km.)	Population (1981 Census)
Agra	4,816	2,852,474
Aligarh	5,024	2,565,450
Allahabad	7,255	3,780,665
Almora	7,023	772,994
Azamgarh	5,744	3,532,876
Bahraich	6,871	2,221,154
Ballia	3,183	1,926,267
Banda	7,645	1,536,349
Bara-Banki	4,422	2,012,576
Bareilly	4,125	2,264,770
Basti	7,309	3,576,789
Bijnor	4,852	1,925,637
Budaun	5,158	1,964,094
Bulandshahr	4,895	2,349,530
Chamoli	9,125	364,287
Dehra Dun	3,088	757,259
Deoria	5,400	3,487,350
Etah	4,449	1,837,575
Etawah	4,327	1,748,737
Faizabad	4,427	2,369,626
Farrukhabad	4,349	2,002,513
Fatehpur	4,168	1,572,770
Garhwal	5,440	624,259
Ghazipur	3,381	1,941,516
Gonda	7,331	2,838,305
Gorakhpur	6,316	3,795,735
Ghaziabad	—	1,866,778
Hamirpur	7,192	1,194,114
Hardoi	6,012	2,293,994
Jalaun	4,549	987,432
Jaunpur	4,040	2;527,012
Jhansi	5,027	1,133,002
Kanpur	6,121	3,790,549
Kheri	7,691	1,962,826
Lalitpur	5,024	587,290
Lucknow	2,528	2,017,172
Mainpuri	4,254	1,724,057
Mathura	3,797	1,543,568
Meerut	5,944	2,766,496
Mirzapur	11,301	2,033,834
Moradabad	5,946	3,151,044
Muzaffarnagar	4,245	2,288,410
Naini Tal	6,792	1,133,111
Pilibhit	3,504	1,006,326
Pithoragarh	7,217	479,600
Pratapgarh	3,730	1,807,252
Rae Bareli	4,603	1,888,181
Rampur	2,372	1,177,022
Saharanpur	5,526	2,673,653
Shahjahanpur	4,581	1,648,659
Sitapur	5,738	2,338,101
Sultanpur	4,424	2,037,783
Tehri-Garhwal	4,421	493,245
Unnao	4,586	1,826,463
Uttarkashi	8,016	190,571
Varanasi	5,091	3,696,768

Figures for Lalitpur and Ghaziabad districts are included in the districts of Jhansi and Meerut respectively.

Names of the district headquarters are the same as the names of the districts except for the districts whose headquarters are given in brackets: Farrukhabad (Fatehgarh); Garhwal (Pauri); Jalaun (Orai); Tehri Garhwal (Narendranagar).

Major cities with population over 200,000 (1981 census): Kanpur: 1,782,665; Agra: 1,110,364; Lucknow: 1,058,633; Varanasi: 990,778; Meerut: 865,638; Moradabad: 850,835; Allahabad: 769,744; Saharanpur: 723,658; Bareilly: 651,142; Ghaziabad: 632,166; Aligarh: 591,337; Muzaffarnagar: 495,044; Jhansi: 427,019; Gorakhpur: 400,836; Dehra Dun: 372,652; Mathura: 328,218; Shahjahanpur: 319,650; Farrukhabad: 315,014; Mirzapur: 267,497; Faizabad: 259,799.

State Boundaries: It is bound by Tibet and Nepal in the north, Himachal Pradesh in the north west, Punjab in the west, Rajasthan in the south west, Madhya Pradesh in the south and Bihar in the east.

State Language: Hindi.

IRRIGATION AND POWER

Irrigation: The irrigation potential during 1980-81 increased to 16.28 million hectares from 6.12 million hectares during 1960-61. During 1982-83 a sum of Rs. 1,650 million was spent on the development of irrigation facilities mainly on large and medium irrigation projects and Rs. 490 million was spent on minor irrigation projects.

To ensure adequate irrigation facilities in Uttar Pradesh the target for increasing irrigation potential by 23.17 per cent has been fixed for the Sixth Plan (1980-85).

The total length of the canals in Uttar Pradesh was 57,250 kms. by the end of 1981-82.

Power: Uttar Pradesh increased its installed capacity from a mere 379 MW in 1960-61 to 3.694 MW in 1982-83.

In the State, hydel power generation totalled 1,212 MW and thermal power generation to 2.282 MW by 31 March, 1982.

Rural Electrification: During 1982-83, 5,842 villages were electrified bringing the total to 53,439 villages and 22,761 *Harijan bastis.*

The Sixth Plan 1980-85, as prepared by the U.P. State Electricity Board, envisages an addition of 1,934 MW in installed capacity of power, laying of 7,190 kms. of main transmission lines, electrification of 28,050 villages and 15,450 *Harijan bastis* and energisation of 277,870 private tubewells and pump-sets.

AGRICULTURE

(See chapter on 'Food & Agriculture' for area and production of different crops.)

The State is the largest producer of food-grains and oil seeds in the country. It leads all the States in the production of wheat, maize, barley, gram, sugar-cane and potatoes.

As against the total foodgrains production of 14.4 million tonnes in 1960-61 the production increased to 26.3 million tonnes in 1982-83.

Land Ceiling: The ceiling area was fixed at 7.30 hectares of irrigated land for a tenure-holder having a family of five members with two additional hectares of irrigated land for each additional member in excess of five, and two hectares of irrigated land for each landless adult son subject to the condition that the additional area so allowed shall not exceed six hectares.

For the purpose of determining ceiling area, the land has been classified into two broad categories—irrigated and unirrigated. One and a half hectares of unirrigated land has been deemed to be equal to one hectare of irrigated land. For grove land and *usar* land, it has been provided that two and a half hectares of grove land or *usar* land shall be equal to one hectare of irrigated land.

Animal Husbandry: After agriculture, animal husbandry is the most important economic activity in the State. In 1978 there were 6.6 million cows and 7.21 million buffaloes out of which 3.04 million cows and 3.96 million buffaloes were in lactation.

Milk Processing Plants: The processing capacity of the dairy units established under different sectors (public, private and co-operative) was of the order of 854,000 litres of milk per day at the end of 1977-78.

Forests: The total area under forests in Uttar Pradesh on March 30, 1980 was about 51,199.42 sq. kms.

Fisheries: Fisheries development programme started in the State in 1944. The bulk of the catch is exported to W. Bengal. Out of 1.165 million hectares of water area nearly 0.324 million hectares consist of confined waters. A total of 0.1413 million hectares is under pisciculture.

The total production of fish during 1979-80 was 17,792.34 quintals. There was also an increase in the production of Fingerlings from 30.145 million in 1978-79 to 32.691 million in 1979-80.

INDUSTRIES

Sugar, cotton textiles and miscellaneous food preparations (mainly comprising edible oils including hydrogenated oils) are the three important industries in the large-scale sector of the State.

The State government is making vigorous efforts to build new industries in the State. Attractive incentives are provided to entrepreneurs from outside the State to establish industries. As a result, the number of registered industrial units rose to 5,632 during 1980-81. The industrial output during 1980-81 rose to Rs. 27,610 million from Rs. 9,730 million during 1960-61.

Till March 1982, 3,260 industrial licences, letters of intent and DGTD registrations were issued with an investment of Rs. 64,570 million from the Government of India.

In the large and medium industries sector, so far 801 licences, letters of intent and DGTD registrations involving an investment of Rs. 11,760 million have been implemented till March, 1982. In all 27 large and medium industries were set up in the State.

The sugar industry is the biggest agro-based industry in the State. With the commissioning of a new factory in Sitapur district the total number of sugar factories increased to 92, including 19 established in the co-operative sector. The construction work of nine other sugar mills is likely to be completed by 1984-85.

In the small industries sector 13,611 industries with an investment of Rs. 860 million were set up during 1982-83 and employment was generated for more than 84,000 people in the small-scale sector.

Trial production in Kajrahat cement factory in Mirzapur district has already started. Auto tractors, Pratapgarh has started commercial production of 'Pratap-284' model tractor.

Handloom Industry: Meets nearly one-third of the total requirement of cloth in the State. During the year 1982-83 the production of handloom cloth was 551.58 million metres.

A sizing plant with an intake capacity of 0.58 million kilograms is being set up at Kashipur costing Rs. 2.75 million which is likely to be commissioned by the end of 1983. Five spinning mills, having a total of 25,000 spindles are being set up with an expenditure of Rs. 520 million. Besides seven new co-operative spinning mills are being set up involving an expenditure of Rs. 617 million. These units are likely to provide employment to 7,000 persons.

Village and Small Scale Industries: Industrial policy was given new orientation and emphasis was laid on the development of village and small-scale industries specially in rural areas, through the rural growth centres programme.

Till March, 1982, 212 growth centres had been developed, 5,354 units were provisionally registered while 2,690 units were set up.

As a result of various promotional programmes the number of small-scale industrial units rose from 3,107 in 1960-61 to 68,426 in 1981-82. During 1981-82, 12,530 smallscale units were established.

Labour: Total no. of registered factories (1981): 6,989; no. of working factories: 6,800; estimated average daily no. of workers employed: 544,000.

No. of Trade Unions as on December 31, 1981: 2,284.

Industrial Disputes: During 1981 there were 245 strikes/lock-outs involving 128,124 workers resulting in a loss of 2,389,389 mandays.

Industrial Estates: There are 70 industrial estates with 982 sheds and 2,741 plots. In addition 17 industrial estates are under construction.

EDUCATION

Institutions (1981-82): Universities 19; Degree Colleges 387; Higher secondary schools 5,410; Senior Basic schools 13,652; Junior basic schools 72,213; Nursery schools 125.

Universities: With the year of establishment in brackets: *Acharya Narendra Deva University of Agriculture,* Faizabad (1974-75); *Agra University,* Agra (1927); *Aligarh Muslim University,* Aligarh (1921); *Allahabad University,* Allahabad (1887); *Awadh University,* Faizabad (1975); *Banaras Hindu University,* Varanasi (1919); *Chandrashekhar Azad University of Agriculture and Technology,* Kanpur (1974-75); *Garhwal University,* Srinagar (Garhwal) (1973); *Gorakhpur University,* Gorakhpur (1957); *Govind Ballabh Pant University,* Pantnagar (1969); *Kanpur University,* Kanpur (1966); *Kashi Vidyapith,* Varanasi (1963); *Kumaon University,* Nainital (1975); *Lucknow University,* Lucknow (1921); *Meerut University,* Meerut (1966); *Rohilkhand University,* Bareilly (1975); *Roorkee University,* Roorkee (1949); *Varanaseya Sanskrit University*, Varanasi (1958); *Jhansi University*, Jhansi.

Note: Aligarh and Banaras are Central universities under the Government of India.

Gurukul Kangri University of Hardwar (Saharanpur) and Dayal Bagh Educational Institute, Dayal Bagh (Agra) have been granted the status of a University by the University Grants Commission.

PUBLIC HEALTH

Total No. of hospitals in 1982: Allopathic including PHC: 3,188; Ayurvedic/Unani: 1,842; Ayurvedic Colleges: 9; Unani Colleges: 2; Homoeopathic dispensaries (State): 503; Beds (allopathic): 51,329; doctors in Government service: 8,569; nurses and midwives: 19,181; TB sanatoria: 4; T.B. Hospitals: 14; Total no. of beds in T.B. sanatoria and clinics: 3,437.

Medical colleges: 9; total no. of seats in Medical colleges: 908.

COMMUNICATIONS (As on March 31, 1978)

Vehicles on road under U.P. State Transport Corporation: buses: 4,362; trucks: 104; taxis: 43. Vehicles other than State Transport Corporation: buses: 7,531; lorries and trucks including private carriers: 26,062; taxis: 4,460; cars: 34,951; motor cycles: 144,433.

Length of motorable roads (1980-81): Total mileage of metalled roads under PWD: 4,779 kms.; total route length: 194,263 kms.; no. of routes operated: 1,455; daily distance covered (kms.): 884,631.

Railways: The total length of railway lines passing through the State, as on 31 March, 1976, was 8,661.23 kms. Of these 5,389.82 kms. were broad gauge and 3,269.40 kms. were metre gauge. The route-kilometerage of railway lines in the State railway-wise and gauge-wise was: Central Railway, broad gauge 956.55 kms. and narrow gauge 2.01 kms.; Eastern Railway, broad gauge 264.78 kms.; Northern Railway, broad gauge 4,097.17 kms. and metre gauge 0.13 kms.; North Eastern Railway, metre gauge 3,232.16 kms.; and Western Railway, broad gauge 71.32 kms. and metre gauge 37.11 kms.

GENERAL

Annual Plan: The State Plan for 1981-82 was of Rs. 10.750 million. An outlay of Rs. 12.020 million has been approved for 1982-83 Plan, which is higher by 11.7 per cent than the plan for 1981-82. About 70 per cent of the Annual Plan has been earmarked for the State sector schemes and about 30 per cent district sector schemes under the decentralisation of planning process.

Water Supply: Till the end of Fifth Five-Year Plan and subsequent two annual plans i.e. 1978-79 and 1979-80 only about Rs. 2,030 million was spent in this sector in U.P. which could provide water supply to 409 towns, 10,056 villages and partial sewerage in 42 urban areas.

Out of 658 urban areas, 476 have been provided with piped water supply benefiting 14,361,000 population (71.80 per cent) upto the end of March 1983 and the work in 92 towns is in progress. Out of 112,561 villages 19,284 villages have been covered by the end of March 1983 benefiting a population of 11,128,000 (approx. 12.36 per cent.)

Housing: The U.P. Housing and the Development Board was established in 1966. This Board and development authorities are doing notable work in various towns of the State and they are constructing number of houses for the economically weaker section of the society.

An urban development project is being implemented in Kanpur with the assistance of the World Bank. It is estimated to cost about Rs. 413.1 million. Rs. 54.7 million has been provided in the budget for the year 1982-83.

Press: (Leading Dailies) *English:* The Times of India, Lucknow; Northern India Patrika, Allahabad; Northern India Patrika, Lucknow; Pioneer, Lucknow; *Hindi:* Aj, Kanpur; Aj, Varanasi; Aj, Gorakhpur; Amar Ujala, Agra and Bareilly; Dainik Jagran, Kanpur; Dainik Jagran, Gorakhpur; Dainik Jagran, Jhansi; Dainik Jagran, Lucknow; Swatantra Bharat, Lucknow; Amrit Prabhat, Allahabad; Amrit Prabhat, Lucknow; Nav Jeewan, Lucknow; *Urdu:* Siyasat Jadeed, Kanpur; Qaumi Awaz, Lucknow.

WEST BENGAL

Old Bengal, of which West Bengal is a part, was famous during the epic period. In ancient Sanskrit literature it was called Gauda or Banga. In the third century B.C. Bengal was part of the Mauryan Empire and from the 4th to the 6th centuries A.D. it was under the Gupta dynasty. In 1905 Lord Curzon divided Bengal into two provinces but the partition was later abrogated by King George V. In 1947 when India achieved Independence Bengal was partitioned between India and Pakistan. Under the States Reorganisation Act, some parts of Bihar were transferred to Bengal. On October 2, 1954 the French enclave of Chandarnagore was added to it. In 1950, the princely State of Cooch-Behar was merged with West Bengal. West Bengal is hemmed in by two natural divisions, the Himalaya northern region, comprising Darjeeling district, Jalpaiguri and Cooch-Behar and the alluvial plain.

CAPITAL: Calcutta. **Area:** 104 sq. kms.; **Population:** (urban agglomeration) 9.166 million (1981 census).

Area of the State: 87,853 sq. kms.; **Population of the State** (1981 census): 54,485,560. **Decennial Population Growth Rate** (1971-81): 22.96 per cent; **Density:** 614 per sq. km.; **Sex Ratio:** 911 females per 1,000 males; **Proportion of Urban Population to Total:** 25 per cent; **Literacy Rate:** 40.88 per cent.

Major Cities (with population over 100,000—1981 census): Calcutta (with 100 wards), 3,288,148 (urban); Durgapur, 313,313; Kharagpur, urban agglomeration, 232,575; Asansol, 254,206; Burdwan, 167,364.

No. of Villages: 38,550.

State Boundaries: The State is bound by Sikkim and Bhutan in the north, Assam and Bangla Desh in the east, Bay of Bengal in the south and Orissa, Bihar and Nepal in the west.

State Languages: Bengali, Nepali and English.

Districts	Headquarters	Area in sq. kms.	Population (1981 census)
Darjeeling	Darjeeling	3,075	1,006,434
Jalpaiguri	Jalpaiguri	6,245	2,207,007
Cooch-Behar	Cooch-Behar	3,386	1,771,562
West Dinajpur	Balurghat	5,206	2,402,763
Malda	English Bazar	3,713	2,035,009
Murshidabad	Berhampur	5,341	3,702,869
Nadia	Krishnagar	3,926	2,977,013
24 Parganas	Alipur	13,796	10,726,751
Howrah	Howrah	1,471	2,957,464
Calcutta	Calcutta	104	3,291,655
Hooghly	Chinsura	3,145	3,549,817
Burdwan	Burdwan	7,028	4,808,886
Birbhum	Suri	4,550	2,094,756
Bankura	Bankura	6,881	2,374,205
Midnapur	Midnapur	13,724	6,723,860
Purulia	Purulia	6,259	1,855,429

Calcutta district comprises of Calcutta city only.

AGRICULTURE

Rice, jute and wheat are the main crops produced in West Bengal. The area sown under rice was 5,210.0 thousand hectares, jute 505.9 thousand hectares and wheat 214.0 thousand hectares and the production was 5,832.6 thousand tonnes, 4,473.4 thousand tonnes and 389.3 thousand tonnes respectively in 1981-82.

About 6,408,320 (approx. 1981 census) families in West Bengal directly depend upon agriculture, out of whom about 969.770 (approx. 1981 census) families are landless agricultural labourers. 2.5 million families own less than 7.5 bighas of land per family and most of them are bargadars 0.95 million families have holdings (per family) between 7.5 and 15 bighas of land and they can be described as small peasants. The holding of 0.55 million families is between 15 and 30 bighas and they can be called middle peasants. Number of families owning more than 30 bighas of land is about 2 million.

Land Ceiling: The ceiling for a family consisting of not more than 5 members is 5.001 hectares in irrigated areas and 7.006 hectares in non-irrigated areas. The retainable limit is increased by 0.502 hectare in irrigated and 0.697 hectare in non-irrigated areas for each additional member in excess of 5, the maximum retainable area being 7.006 hectares in irrigated and 9.809 hectares in non-irrigated areas for a family consisting of 9 members or more. The ceiling for an adult unmarried person or the sole surviving member of a family is 2,502 hectares in irrigated and 3.503 hectares in non-irrigated areas. Number of farming families having less than 1 hectare of land is 3,502,125; number of farming families holding between 1 and 2 hectares of land is 1,082,534; number of farming families holding between 2 and 4 hectares of land is 546,717 and number of farming families holding above 4 hectares of land is 136,288.

Forests occupy 1,186 thousand hectares, which is only 13.4 per cent of the total geographical area of the State.

The types of timber found in the forests are: *Shorea robusta, tactona grandis, michelia champaka, schima walliohi, chukrasia tabularis, betula species, abies, densa, oaks, pinus,* etc.

For development of the forests the Govt. has allocated Rs. 23.7 million. The programme aims at rehabilitating diminished parts of the forest extending over 1,000 hectares with new quick growing species.

IRRIGATION AND POWER

Irrigation: Area irrigated by Govt. canals under the minor, major and medium irrigation schemes of West Bengal was 93,727.82 and 1,082,932 hectares in the years 1976 and 1981 respectively.

Power Production: The total quantity of electricity generated from three main stations (i.e. W.B.S.E.B., C.E.S.C. and D.P.L.) during 1981-82 was 5,555 MW against 5,465 MW in 1980-81.

INDUSTRIES

The State's industrial output is about 20 per cent and coal output about 30 per cent of the country's total.

The number of registered factories (excluding Defence Factories) increased from 6,421 in 1980 to 6,548 in 1981.

Production: The major industries and their production during 1981: Jute: 1,160,000 tonnes; cotton: 53,125,000 kgs.; cotton cloth: 141,629,000 metres; pig iron: 1,782,000 tonnes; steel ingots 1,801,000 tonnes; finished steel (excluding unregistered re-rollers) 1,021,000 tonnes; tea: 129,838,000 kgs.; sugar: 5,000 tonnes; paper and paper board: 118,592,000 kgs.; matches: N.A.

Small-scale Industries: The number of small-scale industrial units with final and permanent registration in the Register of Directorate of Cottage and Small Scale Industries was 121,091 with an addition of employment generated at the end of 1981-82.

Labour (1980): The average daily number of workers in the registered working factories was 875,000 in 1980.

Average no. of employees under different heads: Factories: 895,000; coal mines: 129,000; plantations: N.A.: State Govt.: 362,000; Central Govt.: 438,000; quasi-govt.: 322,000; other sectors: 458,000. People in agriculture (cultivators and agricultural labourers): 7,227,108 (1971 census).

Employment Exchanges: The total number of persons placed in employment during 1981 was 12.4 thousand. During the year 1981, 626.1 thousand applicants were registered at the different employment exchanges as against 638.6 thousand in 1980.

No. of Unions (1981): No. of unions registered: 694; membership: 69,996.

Industrial Disputes (1981): No. of disputes disposed: 6,190; percentage of disputes settled through conciliation: 57.3 per cent; no. of strikes and lockouts: 166; no. of persons affected by lay-offs and retrenchment were 15,891; no. of mandays lost: 6,053,151.

INDUSTRIAL DEVELOPMENT AGENCIES

(See Chapter on State Government Undertakings)

PUBLIC HEALTH (1980):

No. of Hospitals: 398; no. of beds: 47,819; no. of clinics: 958; no. of beds: 76; no. of health centres: 1,055; no. of beds: 10,150; no. of dispensaries: 418.

Family Planning Centres (1975-76): Rural: 335; urban: 72; urban voluntary F.P. centres: 24; rural F.P. sub-centres: 1,005.

EDUCATION

Universities: The following are the names and addresses of the universities with number of students respectively: **University of Burdwan,** Rajbati, Burdwan 713101: 36,067; **University of Calcutta,** Senate House, Calcutta 700012: 196,257; **Jadavpur University,** Calcutta 700032: 4,760; **University of Kalyani,** Kalyani 741235: 2,074; **University of North Bengal,** Rajaram-Mohanpur, Darjeeling: 26,191; **Rabindra Bharati University,** 6/4, Dwarkanath Tagore Lane, Calcutta 700007: 3,854; **Visva-Bharati,** Santiniketan 731235: N.A.; **Bidhan Chandra Krishi Viswavidyalaya,** P.O. Mohanpur, Dist. Nadia: N.A.

No. of educational institutions (1981-82):

Primary & Jr. Basic	47,626
Junior High	3,178
High & Higher secondary and multipurpose	5,129
No. of universities	8
No. of colleges for general education	N.A.
No. of polytechnics	21
No. of medical colleges	7
No. of engineering colleges	3
No. of technological degree colleges	4

COMMUNICATIONS (1981-82):

	Route length (Km.)	No. of vehicles in operation	Average No. of persons employed per day	Total passengers served ('000)	Total earnings (Rs. in '000)
Calcutta State Transport Corporation	9,557	723	13,216	309,100	N.A.
North Bengal State Transport Corporation	22,381	274	4,369	59,122	48,077
Durgapur State Transport Board	5,182	82	1,220	N.A.	13,044

HOUSING

Number of houses constructed under different schemes and expenditure incurred up to 1981-82 respectively: Integrated subsidised Housing Scheme 17,248 houses at Rs. 97.2 million; Low Income Group Housing Scheme 12,050 houses at Rs. 132.44 million; Subsidised Housing Scheme for Plantation Workers 11,550 with financial assistance sanctioned Rs. 79,022 million; Middle Income Group Housing Scheme 3,596 flats at Rs. 91,147 million; Rental Housing Scheme for State Govt. Employees: 6,447 flats at Rs. 140.64 million.

GENERAL

Annual Plan (1982-83): West Bengal's outlay for 1982-83 Plan is Rs. 4,991.0 million against Rs. 4,985.5 million for 1980-81.

Calcutta Tramways Company Ltd.: During 1981-82 the number of passengers carried by tram cars was 257.0 million and total earnings stood at Rs. 64.2 million.

Roads: According to latest available statistics the road length per hundred square kilometres of geographical area was 64 kms. at the end of 1974-75.

The length of extra-municipal roads maintained by PWD as on March 1980 is 16,818 kms.

At present West Bengal has 14,000 kms. of metalled roads under the maintenance of Government. The length of roads constructed during 5th Plan (1974-78), outlay and expenditure thereof were 788 kms., Rs. 260 million and Rs. 261 million respectively.

Press: Leading dailies.

English: Amrita Bazar Patrika, Business Standard, Statesman (Calcutta and New Delhi) and The Telegraph.

Bengali: Ananda Bazar Patrika, Jugantar, Aajkal, Dainik Basumati.

Hindi: Sanmarg, Dainik Vishwamitra.

Rivers: The Ganga, the Damodar, the Bhagirathi, the Hooghly, the Mayurakshi, the Rupnarayan, the Ajoy, the Kasai, the Teesta and the Torsa.

DEFENCE SERVICES

WHILE India is deeply committed to a positive policy of peace, international understanding and co-operation and desires easing of tensions among the nations of the world, it nevertheless takes cognisance of the fact that in view of the mounting arms build-up among the neighbouring nations, national security and integrity demand a fully modernised and well-equipped defence force. Our armed forces are ever alert and vigilant to face any aggression.

The supreme command of the armed forces is vested in the President of India. However the Cabinet holds the responsibility for national defence. The Cabinet Committee on Political Affairs presided over by the Prime Minister decides all important questions having a bearing on defence. The Defence Minister is responsible to Parliament for all matters concerning defence. The operational and administrative control of the armed forces is exercised by the Ministry of Defence and the three service headquarters.

Chief of Army Staff: Gen. A.S. Vaidya; **Chief of Naval Staff:** Admiral O.S. Dawson; **Chief of Air Staff:** Air Chief Marshal Dilbagh Singh.
(Further details see under "Ministry of Defence.")

Army: The Army is organised into five Commands under Army Headquarters. Each Command has requisite field formations under it. For administrative functioning, each Command is divided into Areas & independent Sub-Areas. A Command is commanded by a Lt. General designated General Officer Commanding-in-Chief (GOC in C), referred to as Army Commander. The field formations under it are commanded by officers of the rank of Lt. General/Maj. General while the Areas & Sub-Areas are commanded by Maj. Generals and Brigadiers respectively.

Army Commands with headquarters in brackets: Eastern Command (Calcutta, West Bengal), Southern Command (Pune, Maharashtra), Western Command (Simla, Himachal Pradesh), Central Command (Lucknow, Uttar Pradesh), and Northern Command (Udhampur, Jammu & Kashmir).

Navy: The Chief of Naval Staff exercises command through the following authorities:

(a) The Flag Officer Commanding-In-Chief, Western Naval Command, Bombay: Covers: Bombay, Okha, Jamnagar and Lonavla.
(b) The Flag Officer Commanding-In-Chief, Western Naval Command, Visakhapatnam: Covers: Visakhapatnam, Calcutta, Andaman and Nicobar and Madras.
(c) The Flag Officer Commanding-In-Chief, Southern Naval Command, Cochin: Covers: Cochin, Coimbatore and Goa.

(For Commanding Officers see "Ministry of Defence" in Central Govt. list.)

Air Force: There are six Commands: The Western Air Command (Palam, New Delhi), the Central Air Command (Allahabad, Uttar Pradesh), the Eastern Air Command (Shillong, Assam), the Training Command (Bangalore, Karnataka), the Maintenance Command (Nagpur, Maharashtra) and the South Western Air Command (Jodhpur, Rajasthan). Some units with distinct functions are controlled by Air Headquarters directly.

(For Commanding Officers see "Ministry of Defence" in Central Govt. list.)

India's Frontiers: The country has 15,168 kms. of land frontier—2,966 kms. with Pakistan; 3,950 kms. with Bangladesh; 3,862 kms. with China; and 4,390 kms. with Nepal. Besides it has a coastline of 5,689 kms.

Expenditure: The defence expenditure during 1979-80 was Rs. 32,730 million. During 1980-81 India spent Rs. 38,668 million on defence. Of this lion's share went to the army which accounted for Rs. 21,270 million followed by Rs. 9,200 million for the Air Force and Rs. 2,296 million for the Navy. Pensions and retirement benefits accounted for Rs. 21,270 million.

According to Military Balance, 1981-82, per capita expenditure on defence in U.S. dollars in 1981 was 7 in India, 17 in Pakistan, 750 in U.S.A., 512 in U.K., 5 in Indonesia and 1,835 in Israel. India spent

3.8 per cent of its G.N.P. on defence in 1980 according to the Military Balance.

Strength of Forces (Source: The Military Balance 1981-82): India maintains 944,000 men in the Army. India has 2 armoured divisions, 6 independent armoured brigades, 18 infantry divisions, 10 mountain divisions, one independent infantry brigade, 17 independent artillery brigades, 2 para brigades, and one Commando brigade.

The Air Force has 4 bomber squadrons, 10 fighter-ground attack squadrons, 15 air defence/fighter ground attack squadrons with MIG-21s, 4 interceptor squadrons with MIG-21s, one reconnaissance squadron, 11 transport squadrons, one communication squadron, 16 helicopter squadrons and 20 surface-to-air missiles squadrons. Orders were placed to acquire 85 Jaguars, 75 MIG-21s and 23s, 80 Ajeet fighters, 8 MIG 25 reconnaissance planes, 40 AN-32 and 10 HS-748 transport planes, 130 trainers and 45 Chetak helicopters. The number of combat aircrafts is 614 and personnel 113,000.

The Navy consists of an aircraft carrier, 8 submarines, one cruiser, 24 frigates, 3 Corvettes with surface-to-surface and surface-to-air missiles, 16 fast attack craft (missiles), one patrol craft, 4 coast guard patrol crafts, 14 mine-sweepers, one landing ship and 6 landing crafts. Orders were placed for 2 destroyers, 5 frigates, 4 Corvettes and 6 landing crafts. The Navy has 45,000 men.

The Naval Air Force consists of 33 combat aircrafts, 27 armed helicopters, 2 attack squadrons, 2 maritime reconnaissance squadrons, 5 anti-submarine warfare helicopter squadrons, one search and rescue or liaison helicopter squadron, three training or communications squadrons. Orders have been placed for 8 ground attack fighters, 3 maritime reconnaissance aircrafts and 6 training aircrafts. Naval Air Force has 2000 men.

The Para-Military Forces consist of about 200,000 Border Security Force and 100,000 in other organisations.

Anti-tank Missiles: The SS-11 and ENTAC anti-tank wireguided missiles are manufactured by Bharat Dynamics Ltd., Hyderabad. It is reported that India has acquired from Britain the SEACAT surface-to-air missiles and the shorter range TIGERCAT surface-to-air missiles for anti-aircraft protection. India also has the STYX surface-to-surface liquid-fuelled naval missiles and the SA-2 surface-to-air missiles acquired from the Soviet Union. The Indian Air Force's Mig-21s are equipped with ATOLL air-to-air infra-red missiles, manufactured in India.

New Equipment: The Hindustan Aeronautics Ltd. is currently setting up assembly lines at its Bangalore Units, for the manufacture of "Jaguar" aircraft.

Work is in progress since 1974, for the indigenous production of submarines. Planning design was to be completed in 1980. Mazgaon Dock launched a series of more sophisticated "Leanders" for the Navy in 1980.

RECRUITMENT AND TRAINING

Recruitment of Ranks: In peace time, the demands are related to normal wastage. Considering the limited number required and the large number of candidates offering themselves for enrolment the screening procedure has been streamlined and made more effective to ensure that only the best candidates from the available material are inducted into the Services.

Physical Standards: Candidates who have the physical standards i.e. the minimum height, weight and chest measurements and who are medically fit have to undergo a literacy and physical efficiency test conducted by Boards of Officers at the Branch recruiting offices and enrolment is on the merit judged at these tests.

Minimum standards prescribed for general population are:

(a) Height	164 cms.
(b) Chest	78 cms.
(c) Weight	51 kgs.

Corresponding physical standards are higher in respect of specified racio-ethnic groups whose inherent anthropometric characteristics are better, and lower for some other classes, predominantly residing in the hill districts and backward tribal regions. The physical standards for Sailors and Airmen are different.

Instructions have been issued to recruiting officers to enrol one son of a serving soldier/ex-serviceman on a relaxed standard, such relaxations extending to 2 cms. in height, 1 cm. in chest expansion and 2 kgs. in weight. This step has been taken as a measure of welfare and also to ensure that the tradition of service in the Army to those already serving or who have retired is maintained. The new instructions have come into force with effect from February 1977.

Educational Standards: The educational standards vary from trade to trade. In the case of the Army, variations range from literate to Higher Secondary as opposed to Higher Secondary/Pre-University in the Air Force and Matriculation for all categories except cooks/stewards in the Navy.

Selection Procedure: All prospective recruits for enrolment are screened by the enrolling officers at a suitable place. The best candidates among those who fulfil the prescribed standards are selected. The practice of putting the candidates through an aptitude test at the pre-enrolment stage was discontinued with effect from 15th November 1977. These aptitude tests would now be administered at the training centres after ten weeks of training and trades would be allotted on the basis of these tests. This has been introduced with a view to eliminating a source of malpractice at the recruitment stage where the JCO Tester had the last say in the matter of recruitment of an individual who was otherwise found physically and medically fit.

Recruiting Organisation: There is a combined recruiting organisation for the Army and the Navy. There are 60 recruiting offices located in important towns, each one of which covers several districts for recruitment to the Navy as well as the Army. There is a separate recruiting organisation for the Air Force which has 13 recruiting offices. Recruiting Officers carry out recruitment at their own stations or while on tour in the interior areas in their territorial jurisdiction. Each Recruiting Officer is expected to hold one recruiting *mela* in a month and make open recruitment at these *melas*.

Recruitment of Officers: Recruitment to the officers' cadres in the three Services is made on the basis of a competitive examination through the U.P.S.C. as also by the Services Selection Boards. Candidates in the age group of 16-18½ years and possessing Higher Secondary and equivalent qualifications are eligible for competing in the examination. It is worth noting in this context that although it is not obligatory for the students of the Military Schools located at Chail, Ajmer, Dholpur, Belgaum and Bangalore to sit for the U.P.S.C. examination, special care is taken to see that they develop an interest in a military career. Accordingly coaching is arranged for those students who are desirous of appearing in the U.P.S.C. examination.

The candidates selected are imparted training at the National Defence Academy, Khadakvasla on an Inter-service basis for a period of three years. On completion of the training at N.D.A., Army Cadets go to the Indian Military Academy, Dehra Dun for further training for one year before they are commissioned. The Naval Cadets, after passing from the N.D.A. undergo afloat training for 6 months in the training squadron followed by another 6 months as midshipmen before they are commissioned. The Air Cadets undergo further training for 18 months at the Elementary Flying School, Bidar and Air Force Academy, Hyderabad, before they are commissioned.

Apart from the entry through N.D.A., there is a scheme of direct entry for candidates with graduate/post graduate qualification for the three services for various general/technical branches like E.M.E., Engineers, Signals, Army Medical Corps, Army Service Corps, Army Education Corps etc. in the Army; Logistics, Aeronautical Engineering, Education and Meteorological Branches of the Air Force; and Engineering and Education Branches in the Navy. The age prescribed to these branches varies from 20 to 27 years. The selection is made through U.P.S.C. as well as directly by the Services Selection Boards. There is also a scheme for entry through N.C.C. and through promotion from the ranks.

After commissioning the Army Officers are appointed as 2nd Lieutenant and Naval and Air Force Officers as Ag. Sub Lieutenant and Pilot Officers respectively. Ante date commission is given to qualified graduates in Engineering, M.B.B.S. etc.

Training: Training in the Services has been planned so as to keep the units and formations in a state of readiness so that they can take the field at short notice. Special emphasis has been laid on endurance, fortitude and mental robustness of all ranks so that they are conditioned to withstand the pressure and the intensity of fire of modern weaponry.

Intensive pre-commission training is provided to the officers in National Defence Academy, Indian Military Academy, Naval and Air Force Academies, before the officers are commissioned. After an officer has been commissioned in the Service, he undergoes a number of courses designed to fit him in his particular branch of service. In the case of Army post-commission training in specialised branches is imparted at Infantry School, Armoured Corps and Artillery Schools, College of Military Engineering, College of Combat and High Altitude Warfare School etc. Training in Navy is provided in the training schools of various branches, *e.g.* INS "SHIVAJI" for the Engineering Branch, INS "VALSURA" for the Electrical Branch, INS "HAMLA" for the Supply Branch and INS "VENDURTHY" for the Executive Branch. Air Force Officers undergo advanced training in the Air Force Academy, Air Force Technical College and Air Force Administrative College, etc. The Officers of the three Services are also deputed for training in the Defence Services Staff College, Institute of Defence Management and National Defence College.

Individual and collective training exercises are held periodically by the three Services so as to keep the units and formations in a state of operational readiness. The training imparted develops inter-arms and inter-service co-operation and inculcates initiative at all levels of command.

In order to keep the Armed Forces abreast of modern tactical concepts and technological advancements in foreign countries, officers are deputed to foreign countries for specialised training. Services of such officers are utilised for imparting training to other officers in respective fields.

TRAINING ESTABLISHMENTS

There are a number of training institutions where Officers are imparted pre-commission and post-commission training. There are also a few other institutions run under the auspices of the Ministry of Defence for preparation of boys for entry to the National Defence Academy, such as Rashtriya Indian Military College, Military Schools and Sainik Schools. A brief description of these important training establishments and feeder institutions is given below:

Armed Forces Medical College, Pune, Maharashtra: Admits 120 students of whom those who receive a stipend have to serve as short service commissioned officers after training. For the others preference for admission is given to those who volunteer for service.

Army Cadet College, Pune: Trains other selected ranks from the Army to acquire officer-like qualities and general academic education required for entry to the I.M.A. for grant of commission.

College of Air Warfare, Begumpet Air Force Station, Hyderabad, Andhra Pradesh: provides training to senior officers.

Defence Institute of Fire Research, New Delhi 110046: Trains Personnel in the Defence organisation in modern methods of fire fighting and prevention.

Defence Institute of Stores Preservation and Packaging, Delhi: Presently a part of Defence Materials and Stores Research and Development Establishment, Kanpur, trains defence personnel in different aspects of preservation and packaging.

Defence Institute of Work Study, Mussoorie, Uttar Pradesh: Conducts work study courses, for defence personnel.

Defence Services Staff College, Wellington, Nilgiri Hills, Tamil Nadu: Conducts a 45-week course for senior officers of the three wings; some civilians and foreign officers in all aspects of staff work.

Indian Military Academy, Dehra Dun, Uttar Pradesh: Imparts pre-commission training to cadets from the N.D.A., cadets from the A.C.C., direct entry cadets and N.C.C. cadets selected for commission in the Army

Institute of Armament Technology, Pune, Maharashtra: Trains service personnel and civilian scientific officers in the field of science and technology related to armaments.

Institute of Defence Management, Secunderabad, Andhra Pradesh: Trains service and civilian officers in modern defence management techniques.

Institute of Defence Studies and Analysis, Sapru House, Barakhamba Rd., New Delhi 110001: Set up in 1965 it carries out studies, discussions and research on various aspects of national security.

Institute of Nuclear Medicine and Allied Sciences, Probyn Rd., New Delhi 110007: It runs courses on nuclear medicine and technical studies in nuclear, biological and chemical warfare.

Military Schools: There are 5 run by the Defence Ministry, one each at Chail (Himachal Pradesh); Ajmer (Rajasthan); Belgaum (Karnataka); Bangalore (Karnataka); Dholpur (Rajasthan). The boys appear for the All India Higher Secondary Examination but are not obligated to appear for the National Defence Academy Examination.

National Cadet Corps, West Block, 4, Ramakrishnapuram, New Delhi 110022: Set up to stimulate among youth an interest in the defence of the country.

National Defence Academy, Khadakvasla, Maharashtra: Trains boys who wish to join the armed forces as commissioned officers. Age limit is 16-18½ years and qualifications higher secondary or equivalent. The standard of training reached is equivalent to that of a degree course of a University.

National Defence College, Tees January Marg, New Delhi 110011: Set up in 1960. This college trains officers of the rank of Brigadiers, and its equivalent ranks.

Officers Training School, Madras: Officers granted short service commissions in the Army are trained at this school. Admission to the OTS is made on the basis of a competitive examination convened by the U.P.S.C. followed by suitability having been assessed by a Services Selection Board.

Rashtriya Indian Military College, Dehra Dun: The admission is made twice a year in January and August, for Class VII and boys between 11 to 12 years are eligible for it. It has adopted 10 plus 2 pattern of secondary education. There are a limited number of seats which are allocated normally at the rate of one seat for each State. The State Governments have instituted scholarship schemes for boys studying in the College and such boys are under obligation to take the National Defence Academy examination.

Sainik Schools: Boys between 9-18 are prepared for the NDA entrance examinations in 17 schools run by the Sainik School Society headed by the Defence Minister. The Sainik Schools are affiliated to the Central Board of Secondary Education and follow the 10 plus 2 pattern of secondary education.

These schools are located at: Nagrola on Tawi near Jammu (Jammu & Kashmir); Kapurthala (Punjab); Kunjura near Karnal (Haryana); Chittorgarh (Rajasthan); Balachadi (Gujarat); Satara (Maharashtra); Ghorakhal near Naini Tal (Uttar Pradesh); Rewa (Madhya Pradesh); Tilaiya (Bihar); Purulia (West Bengal); Bhubaneshwar (Orissa); Korukonda (Andhra Pradesh); Amaravathinagar (Tamil Nadu); Bijapur (Karnataka); Kazhakootam (Kerala); Goalpara (Assam); Imphal (Manipur) and Sujanpur Tira (Himachal Pradesh).

School of Directorate of Psychological Research, M-Block, New Delhi 110001: Gives training in selection, techniques and methods.

School of Foreign Languages, West Block 4, Wing No. 56, R.K. Puram, Delhi 110022: Teaches Arabic, Burmese, Chinese, French, German, Japanese, Malay Indonesian, Persian, Russian, Spanish and Tibetan to Service personnel, government employees and a few civilians. Courses begin in April and August each year.

Schools of Nursing: Army Hospital, Delhi Cantt.; Central Command Hospital, Lucknow; I.N.H.S. Ashvini, Bombay; Air Force Hospital, Bangalore; Military Hospital, Jullundur; Military Hospital, Secunderabad; Eastern Command Hospital, Calcutta; Western Command Hospital, Chandigarh.

Other training establishments: A number of other specialised training establishments for each wing of the Armed Forces give instructions of special nature. It is not possible to list them all in this Chapter for reasons of space and, because they cater largely to the needs of the personnel already recruited.

DEFENCE PRODUCTION: The nine public sector units (see Chapter Central Govt. Undertakings) under the administrative control of the Defence Ministry produced goods worth Rs. 4,940.8 million during 1980-81 as against Rs. 5,020.9 million in 1979-80. During 1981-82 the production was estimated to be Rs. 7,764.2 million.

The total paid-up share capital of the undertakings as on 31st March 1981 stood at Rs. 1,799.1 million and the Govt. of India loans amounted to Rs. 2,636.9 million.

The total strength of employees as on 31st March 1981 was 96,505.

Export and Foreign Exchange Earnings: During 1980-81 Bharat Electronics Ltd. earned foreign exchange worth Rs. 51.9 million. Praga Tools Ltd. earned foreign exchange of Rs. 94.8 million during 1980-81. Bharat Earth Movers Ltd. exported equipment worth Rs. 19.8 million in 1980-81. Mazagon Dock Ltd., earned foreign exchange worth Rs. 32.5 million. Garden Reach Shipbuilders and Engineers Ltd.'s foreign exchange earnings during 1980-81 amounted to Rs. 502.5 million on account of repairs to foreign flag vessels/export sales etc. The export earnings of Hindustan Aeronautics Ltd. were Rs. 14.5 million in 1980-81 and likely to increase to Rs. 30 million in 1981-82.

Ordnance Factories: There are 33 ordnance and equipment factories in India producing a wide range of arms, ammunitions, military bridges, explosives, instruments, clothing, electrical cables, vehicles and various other defence stores. About 140,000 people are employed. The gross value of production during 1980-81 was Rs. 6,750 million.

AGGRESSIONS AGAINST INDIA

1. First invasion on Kashmir—23rd October, 1947.
2. Chinese infiltration into Tibet began in 1950.
3. By 1956, Chinese Army had moved along the entire boundary from Ladakh to NEFA.
4. In 1957, China had built roads in the Aksai Chin area.
5. India protested against it on October 18, 1958.
6. In March 1959 China overran Tibet and Dalai Lama came to India.
7. Chinese massive attack on the eastern border and Ladakh simultaneously—October 20, 1962.

   Unilateral cease-fire by China on midnight November 21/22, 1962.
8. (a) Pakistan aggression commenced on April 9, 1965, on Kutch border.
   (b) Infiltrators started coming in Jammu and Kashmir on 5th August, 1965.
   (c) Pakistan troops entered Mendhar area in Jammu and Kashmir on 22nd August, 1965. Repulsed by India, Indian troops crossed cease fire line on 25th August, 1965.
   (d) Cease fire on 23rd September, 1965.
9. Tashkent Agreement on 10th January, 1966.
10. Four Pakistani sabre jets intruded into Indian territory on 22nd November, 1971, near Calcutta. Three of these were shot down. On December 3, 1971, Pakistani aggression on India began with a 'pre-emptive' air strike on several airports from Srinagar to Agra. President Giri declared a state of emergency in the country, and Pakistan launched a full-scale war on India. Hostilities ceased when Pakistan surrendered in Bangladesh on December 16, 1971 and Prime Minister Indira Gandhi announced a unilateral cease-fire on the western front effective 8 p.m. on December 17, 1971.

A TOURIST'S GUIDE

(For Hotels and Travel Agencies see under "Commercial Firms"—Services)

TOURISM is being increasingly recognised the world over as a money spinner. Its great potential is being tapped not only to attract tourists but also to project an international image of goodwill and understanding. India's rich heritage draws many European tourists and attempts are being made to make entry into India easy and for better facilities for travel and comfortable stay in hotels all over the country.

The Department of Tourism in the Ministry of Tourism and Civil Aviation is under the independent charge of a Minister of State and its main functions are development of tourist facilities, dissemination of tourist information, regulation of tourist activities like accommodation, youth hostels, travel agents, transport operators, wildlife outfitters, guides, etc. Another important function of the department is the overseas projection of India's image through publicity media like press, handouts, film and cultural presentations.

The main wing of the department for these promotional and developmental activities is the India Tourism Development Corporation set up in 1966 and recognised as the major public sector organisation for the purpose.

India has three major seasons: winter, summer and the monsoon.

The winter months (November-February) are pleasant throughout India with bright sunny days. In the northern plains, the minimum temperature at times drops steeply and there is snowfall in the hills. In Maharashtra and the south and in eastern India, however, December and January are pleasantly cool, never really cold.

The summer months (April-June) are hot in most parts of India, and it is during this season that hill resorts such as Simla, Mussoorie, Naini Tal, Kulu, Manali, Dharamsala, Dalhousie, Kangra Valley, Kashmir Valleys, Darjeeling, Shillong, Ootacamund, Kodaikanal, Pachmarhi, Mount Abu, Matheran, Mahabaleshwar, Lonavala and Khandala provide cool retreats. (See "Meteorology" for average temperatures and rainfalls.)

The south-west monsoon usually breaks about the beginning of June on the west coast and reaches elsewhere later. With the exception of the south-eastern areas, India receives the major share of its rainfall between June and September. The south-eastern areas receive most of the rainfall from the north-east monsoon between November and January.

Clothing: In northern India, where evening and night temperatures drop steeply in winter, woollen clothing is necessary from the middle of November to the middle of February. Winter in other parts of the country is mild and tropical clothing will be sufficient. For those visiting the hill resorts during this time heavy woollens are essential.

During the summer months, only light tropical and cotton clothing are comfortable. Visitors to the hill resorts, however, should carry light woollens.

Medical Facilities: In all the cities and towns there are State-managed and private hospitals and dispensaries. The services of highly qualified specialists and consultants are available in places like Delhi, Bombay, Calcutta, Madras and other large cities. Some of the chemists, offer round-the clock service. (See "Hospitals" in "Services" for the list.)

Foreign Exchange: To change their money, foreign tourists are requested to deal with authorised money changers and obtain an official receipt to enable them to reconvert their unspent amount on their final departure from India.

Indian Currency: No Indian currency can be brought in or taken out of the country except rupee travellers' cheques.

TOURIST INFORMATION: The main Govt. of India tourist offices in India are at:

(1) 191, The Mall, Agra, Uttar Pradesh, Tel. No. 72377; (2) Krishna Vilas, Station Road, Aurangabad, Maharashtra, Tel. No. 4817; (3) K.F.C. Building, 48, Church Street, Bangalore-560 001, Karnataka; (4) 123, M. Karve Road, Bombay 400 020, Tel. No. 293144; (5) No. 3, Inspection Bungalow, Hotel Kalinga Ashoka, Bhubaneshwar, Orissa, Tel. No. 54203; (6) "Embassy", 4, Shakespeare Sarani, Calcutta 700 071, West Bengal, Tel. No. 441402; (7) Willingdon Island, Cochin-3, Kerala, Tel. No. 6045; (8) B.K. Kakati Road, Ulubari, Gauhati-781007, Assam, Tel. No. 31381; (9) State Hotel, Jaipur, Rajasthan, Tel. No. 72200; (10) Near Western Group Temples, Khajuraho 471606, Madhya Pradesh, Tel. No. 47; (11) Janpath Market, Lucknow 226001; (12) 154, Anna Road, Madras-600002, Tamil Nadu, Tel.No. 86240; (13) 88, Janpath, New Delhi, Tel. No. 320005; (14) C/o Tourist Bhavan, Bir Chand Patel Marg, Patna 800001, Bihar, Tel. No. 25320; (15) C/o Publicity Officer, Andaman & Nicobar Administration, Port Blair, Andaman & Nicobar Islands; (16) G.S. Road, Police Bazar, Shillong 703001, Meghalaya; (17) Govt. of India Tourist Office, C/o A.P. Travel & Tourism Corpn., Diamond House, Liberty Road, Himayat Nagar. Hyderabad, Andhra Pradesh, Tel. No. 36282.

In addition to the above mentioned Tourist Offices, there are State Govt. Tourist offices in the major cities of the respective States and also at important tourist centres.

GOVERNMENT OF INDIA TOURIST OFFICES ABROAD:

Bangkok: Govt. of India Tourist Office, 3F, Singapore Airlines Bldg., 62/5, Thaniya Road, Bangkok, Thailand. Tel. 235-2585.

Brussels: Govt. of India Tourist Office, 60, Rue Ravenstein, Boite 15, 1000 Brussels, Belgium. Tel. 02-511795.

Chicago: Govt. of India Tourist Office, 230, North Michigan Avenue, Chicago, Illinois 60601, U.S.A. Tel. 312-236-6899.

Dallas: Govt. of India Tourist Office, 13317, Kit Lane, Dallas, Texas - 75240, U.S.A. Tel. 214-234-2233.

Frankfurt: Govt. of India Tourist Office, Kaiserstrasse - 77/III, 6000, Frankfurt am Main, West Germany. Tel. 235423.

Geneva: Govt. of India Tourist Office, 1-3, Rue de Chantepoulet, 1201, Geneva, Switzerland. Tel. 322-321813.

Kuwait: Govt. of India Tourist Office, Saadoun Al-Jassim Bldg., Fahad Al-Salem Street, P.O. Box No. 4769, Safat, Kuwait. Tel. 426099.

London: Govt. of India Tourist Office, 7, Cork Street, London WIX 2AB, U.K. Tel. 01-437-3677.

Los Angeles: Govt. of India Tourist Office, Suite 250, 3550, Wilshire Boulevard, Los Angeles, California 90010, U.S.A. Tel. 213-380-8855.

Melbourne: Govt. of India Tourist Office, C/o Air India, 440, Collins St., Melbourne VIC 3000, Australia. Tel. 03-602-3933.

Miami: Govt. of India Tourist Office, 1020, N.E. 165 Terrace, North Miami Beach, Florida 33162, U.S.A. Tel. 305-944-7039.

Milan: Govt. of India Tourist Office, Via Albricci-9, 20122, Milan, Italy. Tel. 804952.

New York: Govt. of India Tourist Office, Room 15, 30, Rockefeller Plaza, North Mezzanine, New York, N.Y. 10020, U.S.A. Tel. 212-586-4901.

Osaka: Govt. of India Tourist Office, C/o Air India, Shoho Bldg., 28, Bingmachi, 4, Chome, Higashu-Ku, Osaka 541, Japan. Tel. 06-261-35.

Paris: Govt. of India Tourist Office, 8, Boulevard de la Madeleine, 75009, Paris, France. Tel. 265-83-86.

San Francisco: Govt. of India Tourist Office, 1774, 26th Avenue, San Francisco, California 94122, U.S.A., Tel. 415-564-2973.

Singapore: Govt. of India Tourist Office, 4th Floor, Podium Block, Ming Court Hotel, Tanglin Road, Singapore - 1024. Tel. 235-57-37.

Stockholm: Govt. of India Tourist Office, Sveavagen 9-11, S-III-57, Stockholm, Sweden. Tel. 08-215081.

Sydney: Govt. of India Tourist Office, 9th Floor, Carlton Centre, 55, Elizabeth Street, Sydney, New South Wales 2000, Australia. Tel. 02-232-1600.

Tokyo: Govt. of India Tourist Office, Pearl Building, 9-18, Ginza, 7, Chome Chuo Ku, Tokyo-104, Japan. Tel. 03-571-5062.

Toronto: Govt. of India Tourist Office. Suite 1016, Royal Trust Tower, Toronto Dominian Centre, Toronto, Ontario, MSK 1K7. Canada. Tel. 416-362-3188.

Vienna: Govt. of India Tourist Office, Opernring 1/E/11, 1010 Vienna, Austria. Tel. 571462.

Washington: Govt. of India Tourist Office, Unit 117, Lakeside Terrace, 7505, Democracy Boulevard, Bethasda, Maryland 20817. U.S.A. Tel. 301-365-4186.

ACCOMMODATION: (See "Hotels" in the chapter *Services* for the list.)

There are modern western-style hotels in all large cities as well as at popular tourist centres. These have been classified on the internationally accepted star system. Hotel charges in India are moderate compared to those of many other countries.

At tourist centres where hotel accommodation is not adequate, there are travellers lodges constructed and run by the India Tourism Development Corporation, a Government of India Undertaking, or tourist bungalows run by the State Governments which offer comfortable lodging and meals.

House boats fully furnished and staffed are moored to the banks of the river Jhelum and Dal and Nagin lakes in Kashmir and are known for their comfort and convenience.

Many centres of tourist interest in India are situated in out-of-the way places. At most of these tourist centres there are Government owned rest houses (semi-hotel establishments) where tourists can stay. These are all close to national highways and convenient for tourists travelling by road. It is advisable to make reservations in these rest houses sufficiently in advance.

Youth Hostel accommodation is generally available in the hostels of schools and colleges in most places of tourist interest during vacations only, in summer from May to July and in winter during December. However, there is a Youth Hostel in Delhi open throughout the year. Organised camping facilities exist in New Delhi at Tourist Camps, Opp. J.P. Narayan Hospital, Jawaharlal Nehru Road, and Qudsia Gardens, Opp. ISBT, Kashmiri Gate

The Department of Tourism, Government of India have constructed Youth Hostels at: Amritsar, Aurangabad, Bhopal Dalhousie, Darjeeling, Gandhinagar, Hyderabad, Indiranagar (Madras), Jaipur, Nainital, Panaji, Panchkula (Haryana), Patnitop, Puri, Trivandrum and Pondicherry. Youth Hostels under construction will be situated at Port Blair and Mysore. For an exhaustive list of other youth hostels contact Youth Hostel Association of India, 5, Nyaya Marg, Chanakyapuri, New Delhi 110 021.

Details for all these places can be had from any of the Government of India Tourist offices.

MODE OF TRAVEL TO INDIA: The overland route from Europe to India passes through France, Germany, Yugoslavia, Bulgaria Turkey, Iran and Pakistan-Hussainiwalla. On the Indo-Pakistan border, 26 kms. from Amritsar, is the only check-post called Attari.

All major airlines of the world operate services to and from the various international airports in India. Air India, the national airline connects Bombay, Delhi, Calcutta, Madras and Trivandrum to over forty destinations all over the world.

Travel within India: The Indian Airlines network of services onnects more than 70 cities including many centres of tourist attraction. (See air route and tourist map at the end of the book.)

Indian Airlines offers concessional fares for foreigners and ndian residents abroad. The rates are: *(a)* Discover India fare: 375 for 15 days for travel on all domestic sectors with unlimited topovers. *(b)* Youth fare concession: A 25% discount on normal air fare on all domestic sectors is offered to persons below 30 years of age.

The railways in India go almost everywhere and offer concessional **Indrail Pass** which is inclusive of reservation charges. These passes are issued only on payment of U.S. Dollars and Pound Sterling or travellers' cheques from Railway booking offices at Bombay, Delhi, Madras and Calcutta, Secunderabad/Hyderabad.

"INDRAIL PASS"
(Payment in foreign currency only)
FARES IN US DOLLARS

Period of	A/C Class		First Class		Second Class	
Validity	Adult	Child	Adult	Child	Adult	Child
			(A/C chair)			
7 days	160	80	80	40	35	18
15 "	200	100	100	50	45	23
21 "	240	120	120	60	55	28
30 "	300	150	150	75	65	34
60 "	450	225	225	113	100	50
90 "	600	300	300	150	130	65

With the introduction of the above concession, all other concessions like student and circular ticket concession remain cancelled.

Motoring in India: Tourists who wish to travel by automobile can obtain full information regarding road conditions, driving regulations, driving licences, 'Triptyque' or 'Carnet', from the recognised Automobile Associations listed below. Private taxis or luxury tourist taxis can be hired though self-driven cars are not generally available in India.

(1) The Automobile Association of Upper India (behind Hindustan Times Bldg.), Lilaram Bldg., 14-F, Connaught Place, New Delhi 110001 (Tel. 42063); (2) Western India Automobile Association, Lalji Naranji Memorial Bldg., Churchgate, Bombay 400020 (Tel. 291085); (3) Automobile Association of Eastern India, 13, P. Barua Sarani Rd., Calcutta 700019 (Tel. 479012/474455); (4) Automobile Association of Southern India, 38A, Annasalai Rd., Madras 600006 (Tel. 86121/2/3); (5) U.P. Automobile Association, 32A, M. Gandhi Rd., Allahabad 211001 (Tel. 2445); (6) Automobile Association of Kerala, Collectorate Junction, Kottayam 686001.

Insurance: A third party insurance is compulsory for all motor vehicles which are in use. The insurance must be with a company registered in India.

Passport/Visa: The Government of India issues three kinds of visas, *viz.* Tourist, Entry and Transit according to the purpose of visit.

Visas are issued by Indian Representatives abroad. In countries where there are no Indian Representatives or Consular Officers, the nearest British Representatives will advise on the obtaining of Indian visas.

South Africans of Indian origin do not require visas but should be in possession of valid passports or certificate of identity endorsed for India.

Citizens of Commonwealth countries (other than citizens of Sri Lanka and Bangladesh) and of the Republic of Ireland and nationals of Nepal (except when coming from Tibet) require a valid passport without visa. However, holders of U.K. and colonies passports ordinarily resident in Kenya and Uganda and holders of British Subject or British Protected Persons passports require visas. Nationals of Commonwealth countries and of the Republic of Ireland proceeding to India for or in connection with missionary work require special endorsements.

Nationals of Sweden, Finland, Norway, Denmark, Yogoslavia, Bulgaria and Iceland holding valid national passports can enter India for a stay of a maximum period of 90 days once within six months without a visa.

Nepalese and Bhutanese when proceeding from their respective countries need no passport or visa.

Individuals without nationality or of undermined nationality (stateless persons, IRO refugees, persons receiving legal and political protection, holders of Nansen passports etc.) should have valid passports, identity documents or sworn affidavits with visas for which they should apply at least two months in advance.

Family passports issued by other Governments are recognised without discrimination.

Citizens of all other countries require a valid passport entry, transit or tourist visa. Collective passports are accepted as valid documents only in respect of family groups where the names of minor children are included in the passports of the parents.

Foreign tourists and Indians resident abroad visiting India are entitled to the grant of Tourist Introduction Cards which helps them in getting accommodation in Rest Houses, Dak Bungalows, Railways, Indian Airlines, etc. Only foreign tourists are entitled to All India Liquor Permits which entitle them to buy, consume and possess liquor in States where prohibition exists. The Govt. of Gujarat has also relaxed its prohibition policy for foreign experts working with either Private Sector or Govt. organisations who can obtain liquor permits.

Restricted and Protected Areas: Visitors require special permits to visit areas declared as 'Restricted or Prohibited Areas' for security reasons.

Authority to issue the permits: Restricted Areas: Bonafide foreign tourists intending to visit Darjeeling can get necessary permits from the Immigration Authorities at any one of the four international airports of Bombay, Calcutta, Delhi and Madras. Tourists visiting Darjeeling town for the purpose of tourism for a period of 15 days do not require the permit, provided they travel to Bagdogra and back by air. Bonafide tourists intending to visit Darjeeling and Jaldapara for more than 15 days can get the necessary permit from the Foreigners' Regional Registration Offices in Bombay, Calcutta, Delhi and Madras.

Foreign tourists visiting Shillong and Kaziranga Wildlife Sanctuary for touristic purposes for a period of 15 days and 7 days respectively do not require any permit provided they travel upto Gauhati and back by air and travel to Shillong/Kaziranga by the route indicated below: For Shillong: Gauhati-Jorhat-Shillong Road. For Kaziranga: Gauhati-Jhalukbari-N H Diversion-Jorhat-N H 37: Kaziranga.

Permits for visiting Shillong for more than 15 days can be obtained from the Trade Advisor and Director of Monuments, Government of Meghalaya, 12B, Russel Street, Calcutta and for visiting Kaziranga, Manas and Gauhati for more than 15 days can be obtained from the Trade Advisor, Assam House, 8, Russel Street, Calcutta.

For visiting Bhutan visitors require a visa from the Royal Bhutan Government or their Missions in New Delhi and New York. They also require transit permits to pass through the restricted areas of India.

Foreign tourists can visit Gangtok (Sikkim) for a period of 4 days or so. Applications for this permit have to be made to the Deputy Secretary, Ministry of Home Affairs, New Delhi in advance.

Trekking in Phalut and Sandakphu area is allowed provided foreign tourists report to Foreigners' Registration Office, Darjeeling, 24 hours before departure and report at police checkposts at

Phalut and Sandakphu. The visit to Darjeeling town, Phalut and Sandakphu must be completed within 15 days:

Other Restricted Areas: Permits are issued by the Ministry of Home Affairs, North Block, New Delhi.

A foreigner resident in India, who wishes to make short trips abroad of not more than 3 months, can obtain "Return Visas" from the Foreigners' Regional Registration Offices or the State Governments. If the visit abroad is of longer duration "No objection to Return" endorsements can be obtained. Such endorsements are valid for one year in the case of missionaries and 6 months in the case of others and within these periods Indian Missions can issue re-entry visas on the strength of such endorsements.

Registration of Foreigners: No registration is required for holders of Transit Visa.

Visitors holding visas for three months or less: No registration. If permission to extend stay beyond 90 days is given, Registration Certificate and Residential Permit should be obtained from the nearest Foreigners' Regional Registration Office.

Visitors holding visas for more than three months: Registration within seven days of arrival and, in any case, before departure if leaving within seven days of arrival in India.

Personal appearance is necessary at the time of initial registration. Tourist Visa holders are exempted from reporting change of address. All others have to report change of address to the registration authorities if they intend to be absent from their registered address for more than 15 days. If this has not been done, visitors have to report to the registration authorities of the town they are visiting unless they stay at a hotel in which case the registration at the hotel is sufficient. Citizens (other than missionaries) of Commonwealth countries and Ireland and nationals of Nepal and Bhutan are exempted from registration formalities.

Departures: Tourists, if they are registered, are exempted from reporting their movements. However, all visitors holding registration certificates have to obtain, before departure exit endorsements from the Registration Officers of the district in which they were initially registered. The Foreigners' Regional Registration Officers can also grant these endorsements to visitors residing within their jurisdiction. Permits have to be surrendered at the Foreigners' Registration Office in the city and not at the airport. Registration certificates and residential permits are to be surrendered at the port of departure.

Regulations on entry into India: *(a)* Cholera and Smallpox: Inoculation and vaccination recommended. *(b)* Yellow Fever: A valid international certificate of vaccination is required for arrivals from infected areas. Any person (including infants) arriving by air or sea without a valid certificate is detained in isolation for the requisite period or to a maximum of six days counted from the time of last possible exposure to infection. This is enforced if the visitor arrives within six days of departure from an infected area or has been in such an area in transit or has come by an aircraft which has been to an infected area, but has not been disinfected in accordance with the procedure laid down in Schedule VI of the Indian Aircraft (Public Health) Rules, 1954 Act or those recommended by W.H.O. A certificate of vaccination against yellow fever is regarded valid only if the vaccine used has been approved by the W.H.O. and if the vaccinating centre has been designated by the health administration for the territory in which that centre is situated. A vaccination certificate is not regarded as valid until ten days after the date of vaccination. The certificate remains valid for a period of ten years. In the event of re-vaccination within ten years the certificate becomes valid immediately.

The following countries and territories are regarded as yellow fever-infected areas: Angola, Botswana, Burundi, Cameroon, Central African Republic, Chad, Congo (Brazzaville), Congo (Democratic Republic), Dahomey, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Kenya, Liberia, Malawi, Mali, Mauritania, Niger, Nigeria, Portuguese Guinea, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, Sudan (South of 15°N), Togo., Uganda, United Republic of Tanzania, Upper Volta, Zaire and Zambia. Bolivia, Brazil, British Honduras, Canal Zone, Colombia, Costa Rica, Equator, French Guiana, Guatemala, Guyana, Honduras, Nicaragua, Panama, Peru, Surinam, Trinidad and Tobago, Venezuela.

Note: When a case of yellow fever is reported from any area of a country, the whole of that country is regarded by the Government of India as infected by yellow fever and is added to the above list.

Visitors leaving for countries which impose health restriction on arrivals from India are required to be in possession of a valid certificate of inoculation and vaccination. There is no health check-up of passengers leaving by air. There is, however, normal health check-up of passengers leaving by sea.

Baggage: All baggage is subject to customs examination. Articles of high values *e.g.* radios, cameras, binoculars, jewellery, typewriters, transistors, etc are exempted from duty provided they are entered in the re-export declaration form and re-exported within 6 months.

No fire-arms, ammunition for fire-arms and other weapons will be allowed to be carried by passengers without specific authorisation from the Director-General, Civil Aviation. Fire-arms should be declared. Unloaded fire-arms and ammunition may be handed over to Air-lines before embarkation for delivery at the destination. Carriage of explosives is prohibited.

All visitors importing fire-arms and ammunition of permissible types must obtain a Possession Licence, valid for six months, from the Indian Embassies/Consulates or after arrival from the District Magistrates in India. Temporary licences are also issued at ports of disembarkation to enable tourists to transport fire-arms, etc. to their destination. It may, however, be clarified that this temporary licence authorises the licensee to possess and carry (*and not use*) the arms and ammunition covered by this licence for the duration of the journey. The licensee shall on arrival at his destination apply immediately to the nearest licensing authority for a regular Possession Licence and at the same time deliver this temporary licence in *original* to that authority. The tourist must also deposit his arms and ammunition for safe custody either with an authorised arms dealer or with the nearest Police Station pending issuance of the regular licence. On obtaining the regular licence, he can get back his arms and ammunition from the arms dealer/police station as the case may be on production of the licence.

If a tourist coming to India wishes to bring with him certain specialised equipment or articles not covered by the Tourist Baggage Rules as explained above, he should apply in writing well in advance to the Chief Controller of Imports and Exports, Udyog Bhawan, New Delhi, giving particulars of all such articles which he intends bringing into the country with him and the special reasons for doing so. The approximate C.I.F. value of the articles should also be indicated.

The import of certain articles such as dangerous drugs, live plants, gold coins, gold and silver bullion and silver coins not in current use, is either totally prohibited or restricted. The law provides heavy penalties for infringement of this restriction.

Tourists are allowed to bring into India travellers' cheques or foreign currency notes of any amount subject to declaration on the Currency Declaration Form issued by the customs at the air/sea port or checkpost on the land border.

Additional concessions for tourists: *Sporting Fire arms:* Not more than three sporting fire-arms brought in by a tourist are allowed free of duty. These must, however, be re-exported.

Cartridges: Each tourist is allowed to bring in 400 (exclusive of 20 allowed duty free) cartridges, on payment of customs duty, but without an Import Licence.

Film: A tourist is allowed to import two still cameras with 2 rolls of film or 48 plates plus 50 rolls on entry in Tourist Baggage Re-export Form and also one miniature cinematograph camera of mm with 10 reels of films plus 20 reels on entry in Tourist Baggage Re-export Form.

TRAVEL AGENCIES: ***A list of Govt. approved Travel Agencies appear under "Services". Please see General Index under "T"***

PLACES OF TOURIST INTEREST—CENTRAL REGION

Sanchi: It is 45 kms. (28 miles) from Bhopal, the Capital of Madhya Pradesh. Sanchi was not directly associated with the life of Buddha, but grew to be an active centre of Buddhism during the time of Ashoka (3rd Century B.C.). The magnificent and relatively well preserved monuments for which Sanchi is famous are all situated atop a hill overlooking woods where "Flame of the Forest" trees bloom fiery red in the summer. The most imposing of the monuments is the Great Stupa (about 150-100 B.C.)—huge semi-circular structure, surrounded by profusely carved gateways and railings depicting scenes from the Buddha's life. In the history of Indian art, the Sanchi stupa occupies a very important place, for it has influenced Hindu and Buddhist sculpture for many centuries that followed.

Khajuraho: Nearly 402 kms. (250 miles) south east of Delhi (flying time 2 hrs. 15 mts.) are the erotic temples of Khajuraho in Madhya Pradesh, belonging to about 950 to 1150 A.D. They are ranked among the world's topmost tourist attractions, and represent some of the most exquisite specimens of Hindu architecture and sculpture in medieval India. The carving in the temples still seem to breathe a life and passion of their own and their beautiful proportions, the vibrant texture of the carvings which enrich their walls and their impressive size testify to the glories of the master builders of those days.

GAME SANCTUARIES/NATIONAL PARKS

Kanha National Park: In the central highlands of India is one of the finest places for seeing Indian swamp deer, chital, blackbuck, Indian bison, sambar and various carnivores. There are also nearly a hundred species of birds in this park. It can be reached by a motorable road from Nagpur (273 kms. or about 170 miles).

Accommodation: Forest rest houses.

Shivpuri National Park: The game preserve of the former rulers of Gwalior State, this 158 sq. km. (61 sq. miles) park is the natural abode of the sambar, chital, nilgai, chinkara and the Indian tiger. It is about 181 kms. (about 112 miles) south of Gwalior.

Accommodation: Shivpuri Hotel, Circuit House and Dak Bungalow.

EASTERN REGION

Calcutta: Calcutta was born with the beginnings of the British rule in India and thus has no ancient monuments to talk about. Victoria Memorial which houses the relics of British rule in India, the Indian Museum treasuring the relics of ancient civilization and the Ashutosh Museum displaying Bengali folk art are some of the places worth visiting. The impressive Howrah Bridge leads to the Botanical Gardens and to Belur Math, the seat of the Ramakrishna Mission.

Bodh Gaya: It is the most sacred of Buddhist centres because it was here that the Buddha attained enlightenment under the 'Peepal' tree. A number of monuments were raised at this site in the subsequent centuries. The Mahabodhi Temple, a magnificent structure with a pyramidal tower of nine storeys, 48.75 m. (160 feet) high, contains a colossal gilded image of the Buddha in the earth-touching posture symbolising the event of enlightenment. The temple was probably built in the 4th century A.D. and restored several times subsequently. Bodh Gaya is 11.26 kms. (7 miles) by road from Gaya railway station which is connected with Patna by rail (92 kms. or 57 miles).

Darjeeling: Hill station in West Bengal lies on the lower slopes of the Himalayas about 600 kms. (370 miles) north of Calcutta. It is 2.167.12m. (7,110 feet) above sea level. From here, one can view the Himalayas in all their majesty, range upon range of perpetual snow culminating in Kanchenjunga (8,578.90 m. or 28,146 ft. high). The quaint Buddhist shrines and monasteries, the happy carefree faces of the hill-folk and above all the picturesque scenery all around will abide in the visitor's memory.

The Kanchenjunga can always be seen, while the Everest, the highest peak in the world, is visible only on a clear day. Other favourite walks for the visitor are to Birch Hill and Lebong. The former is a reserve forest with an excellent park. Here the visitor will find oak, chestnut, cherry, maple, birch and alder.

Not far from the Birch Hill Park is the Himalayan Mountaineering Institute which provides training in mountaineering in the Himalayas. Tenzing Norkay, who climbed the Everest along with Sir Edmund Hillary, is associated with the Institute. The Observatory Hill, above the church, is known to the Buddhist as 'Rdo-rje-gling', 'the place of the Dorje', the mystic thunderbolt of the Lamaist religion. It is from this that Darjeeling takes its name. The bazaars of Darjeeling are very exciting. There you will find curios, carved wooden boxes, exotic pieces of jewellery, embroidered shawls and art objects. On Saturdays and Sundays, the picturesque hill-folk—Bhutias, Nepalese, Tibetans, Lepchas—throng the market-place with their wares and look most colourful.

Darjeeling can be reached from Calcutta by air upto Bagdogra and from there by road (88 kms. or 55 miles).

Bhubaneshwar: Orissa's new capital, a metropolis of temples, was built around a sacred lake which was once encircled by some 7,000 shrines. Now only 500 remain in decay, presenting a complete picture of Orissan art and history from the 3rd century B.C. to the 16th century A.D. The great Lingaraj Temple is supposed to be "the finest example of a purely Hindu temple in India". Pilgrims come here for blessings and then take a dip in the sacred lake "Bindu Sagar". This 20th century garden city has many other attractions like the nearby Jain and Buddhist rock cut caves of Khandagiri and Udayagiri. The beautifully preserved Asoka's rock edicts at Dhanli, carved around 260 B.C. narrate the horrors of the Kalinga war and Asoka's acceptance of the path of non-violence.

Puri: About 63 kms. (39 miles) by road from Bhubaneshwar, is the sacred city of Puri dominating Orissa's sea coast in all its secluded splendour. It is one of the 'Char Dham', the four most holy places of pilgrimage in India, the three others being Badrikedarnath in the north, Rameshwaram in the south, and Dwarka in the west. Every year, in the month of June, as many as two hundred thousand visitors and pilgrims flock to Puri to watch the Car Festival, when the images of the Jagannath ('Lord of the Universe') Temple are taken over a distance of one mile to the garden shrine of Gundicha Mandir. The gigantic car 11 m. (35 ft.) long and 14 m. (45 ft.) high with 16 wheels—each 2.13 m. (7 ft.) in diameter—is used for carrying the deities. It is a unique sight to see thousands of devotees vying with each other to pull the chariot.

Modern Puri has been built more or less along the beach which stretches east to west. The sea is shallow for about a mile from the beach, but the surf breaks with a rare violence on the shore. From early morning the beach is thronged with people who sport or bathe in the roaring but harmless waves.

Konarak: The Sun Temple of Konarak, on the seashore, about 66 km. (41 miles) from Bhubaneshwar is stupendous in proportions and truly amazing in its ornamentation. Standing in lonely splendour among the sand dunes, built in 1250 A.D. and dedicated to the Sun God, the temple is in the architectural image of the mythical chariot of the Sun rushing through the blue heavens. The twelve pairs of wheels of the chariot are the last word in sculptural artistry and the seven horses in front, straining to pull the massive weight, are superbly executed. Intensely lovely are the thousand and one figures—musicians, lovers, couples in embrace, floral designs, the enormous horses and elephants flanking the temple, scenes of the battle and the chase—all masterpieces.

Traveller's Lodge at a short distance from the temple is a very comfortable place to stay in, but tourist prefer to visit Konarak in a one-day trip from Bhubaneshwar.

Chilka Lake: About 96 kms. (60 miles) south of Bhubaneshwar is this great lake, famed for its rich bird life and a favourite resort for fishermen. Its scenery is of great natural beauty and many people travel there to watch the everchanging light at dawn, at noon, at sunset, in winter and in summer, in sunshine and in the rains.

Some of the most attractive aborigine tribes live in the neighbourhood of this lake.

Accommodation: P.W.D. Inspection Bungalow at Barkul which overlooks the lake.

Hyderabad-Secunderabad: The twin city linked together by the Hussain-Sagar (lake), is the capital of Andhra Pradesh. It is a centre of Muslim culture and learning and the fifth largest city in India. Standing on the banks of the river Musi, it was till 1948 the capital of Hyderabad State of Nizam, one of the richest men in the world. The Salar Jung Museum crammed with curios from all over the world, old manuscripts, costumes and ancient weapons is a living proof of the riches. Trapezoid in shape the city is surrounded by a stone wall. At the junction of wide avenues stand the Char Minar, a stately rectangular white building with four tall minarets often referred to as the "Arc de Triomphe" of the East. It is the famous landmark of Hyderabad and curiously made more famous by a brand of cigarettes of the same name said to be one of the strongest, cheapest and most satisfying kind on the market. To the south of Charminar lies the Chaumahalla Palace and to the West the Mecca Masjid, the principal mosque of Hyderabad. Built entirely of stone and richly decorated in coloured and polished plaster it boasts of an interior that can hold ten thousand worshippers at a time.

The Falaknuma Palace, the Osmania University and the beautifully laid out river gardens are some of the recent additions to the city that blend well with the old.

The tombs situated 8 kms. (5 miles) out of the city, are of Qutbshahi kings who ruled in the 16th and 17th centuries. Next to it is the massive Golconda Fort. It is surrounded by a strongly built wall of solid blocks of granite, with eighty-seven bastions at the angles, on which there are still some of the old guns. Now in ruins it was once famous as the diamond mart for the nearby mines.

GAME SANCTUARIES/NATIONAL PARKS

Jaldapara Sanctuary: This 93 sq. km. (36 sq. miles) area on the river Torsa in North Bengal is the abode of the famed Indian rhinoceros. Swamp and barking deer, sambar, pig and sometimes wild elephants are also seen here. Best months to visit are December to May. The nearest airport is Cooch Behar 100 kms. (62 miles), which is connected by air with Calcutta.

Accommodation: Tourist Bungalow.

Kaziranga Sanctuary: Famous as the main stronghold of Indian rhinoceros this 430 sq. km. (166 sq. miles) sanctuary also has elephant, wild buffalo, deer, sambar and many species of water birds. Best visited between December and May. It is 218 kms. (135 miles) from Gauhati which can be reached by air from Calcutta.

Accommodation: Forest Inspection Bungalow at Baguri.

Manas Sanctuary: Close to the Himalayas, it is 153 kms. (95 miles) west of Gauhati. Besides wild buffalo, elephant, Indian bison, tiger and deer the added attraction is the scenic beauty. Fishing is also possible here. October to May is a good time to visit.

Accommodation: Forest Department Bungalow at Mothanguri.

Note: A special permit is required to visit Kaziranga and Manas Sanctuaries in Assam State. It can be obtained from Assam House, 8, Russel Street, Calcutta 700016, which would take about five to six days to process. This applies to all regions in Assam and Meghalaya except Shillong.

Hazaribagh National Park: Situated in Bihar State.

Accommodation: Tourist Lodge; Forest Rest House (Kanari); Barodabari Forest Bungalow; Circuit House; and D.V.C. Guest House.

Palamau National Park: In Bihar State.

Accommodation: Tourist Lodge, Tourist Cottages and Forest Rest House (Kechki).

Dalma Wildlife Sanctuary: Near Jamshedpur in Bihar.

Semlipal National Park: Situated in the State of Orissa.

Accommodation: Forest Bungalows and Cottages at Chahala Nawana, Jonabil and Gudgudea.

NORTHERN REGION

Delhi: Like Rome, the capital of the Indian Republic, is an 'eterna city', and with a history even more chequered and ancient. In th ancient days, the city shifted its site at least seven times and th ruins of all these townships are still there for anyone to see.

There are today two Delhis—the old city of the Mughals built b Shah Jahan, the Emperor who built the Taj, and the new city buil by the British in 1931. While Old Delhi evokes a distinctly orient atmosphere, New Delhi has wide avenues and imposing offic buildings. Both the cities are rich in monuments and mosques; suc as the Red Fort, the Jantar Mantar Observatory, Humayun Tom the Parliament House, the Rashtrapati Bhavan and many more

Agra: The city of the world famous Taj Mahal has many othe historical sites of interest like the fort of the Mughals, the ruins o Fatehpur Sikri—a city built by Akbar—a Mughal Emperor. It als has numerous and fabulous tombs of eminent personalities. Specia tourist bus and trains run from New Delhi for a day's journe

Chandigarh: Now a Union Territory and also the capital of th Punjab and Haryana, the youngest of the Indian capital cities, it is striking example of modern town planning conceived by L Corbusier and Maxwell Fry. Advanced styling is adapted to th local climatic needs making it an unique city in the whole of India

Amritsar: City in the Punjab, is the religious capital of the Sikhs. I was founded in 1577 around a sacred pool, from which the cit takes its name "Pool of Nectar" The Golden Temple stands in th centre of this pool. The marble based temple has bronze sides an dome which are heavily covered with pure gold leaf. These refle the tropical sun into the still waters of the pool, illuminating it an creating an atmosphere of awe and respect. There are a few mor of the Sikh and Hindu temples worth seeing, but none surpass th peaceful aura of the Golden Temple.

Almora: In U.P. (133 kms. or 83 miles from Kathgodam Railwa Station) is the main town in Kumaon Hills. Perched at an elevatio of 1,706.88 m. (5,600 ft.) it is about two miles in length like saddle, and is said to have been founded four hundred years ago b Raja Kalyan Chanda. Almora has moderate rainfall, tempera climate, the temperature seldom rising above 31^{0}C (88^{0}F), ev during the summer days, and comparative freedom from fo Within easy distance of Almora are many Himalayan peaks- Seehee Debi, Bandnce Debi and Binsar being the chief on Binsar Hill also known as Jhandi Dhar is only 21 kms. (13 mile from Almora and the bridle path leading to it, passes throu enchanting jungle scenery.

Accommodation: Available at the Government circuit house f which an advance booking has to be made.

Pindari Glacier: Can be reached from Almora at a distance of 1 kms. (75 miles) in eight stages, attaining an altitude of 3,963 m. 4,267 m. (13,000 to 14,000 ft.). The most suitable time for this tr is either May-June or September-October.

Naini Tal: Hill station also in Kumaon Hills, is attractively situat around a mountain lake 1,935.48 m. (6,350 ft.) above sea level. shady avenue skirts the lake. On either side of the lake rise lof hills dotted with beautiful villas and bungalows. There are number of picnic spots around from where one can have magnificent view of the snow peaked Himalayan mountain ran Nainital District has a chain of lakes lying close to one another, t prettiest amongst them being lake Naini itself. They are a verita paradise for the angler. Besides fishing, one could also swimming, yachting, boating, riding, skating and trekking.

Kashmir: The Great Mughals, who were connoisseurs of the go things of life, described Kashmir as 'the earthly paradise'.

Indeed, it is difficult to imagine anything more lovely. It is a va rich, green valley criss-crossed by streams and rivulets a encircled by stupendous snow-clad mountains—'an emerald set pearls'. Nature has adorned it with lakes of limpid waters, bubbl springs by hill-sides, upland pastures and springy meado Clothing the valley is a vast expanse of paddy fields and fore alive with a variety of birds and animals. To enhance its natu beauty, pleasure gardens were laid out by the Great Mughals at many places in Kashmir.

Here you can stay in luxury in a floating hotel called the 'house-boat'; glide gently on the placid waters of the Dal Lake in a shikara; play golf on perhaps the world's highest golf-course; enjoy a variety of water sports; or, if you are adventurous, go trekking or hunting. Also, you can take back home some of the exquisitely embroidered, carved, chiselled or painted handicrafts for which Kashmir is known the world over.

Srinagar: Is a central place from where excursions and pleasure trips to all parts of the valley can be planned. It is itself a picturesque place with lakes, gardens and monuments along the river Jhelum.

Srinagar is an ancient city believed to have been first built by Emperor Asoka in the third century B.C. The Jhelum flows through the heart of the city, dividing it into two parts which are connected by nine bridges. A trip down the river in a swiftly gliding shikara would give the visitor a feel of the city's picturesque balconies, busy ghats, mosques and temples.

Gulmarg: Is about 46 kms. (29 miles) from Srinagar, a huge grassy bowl, known for its golf-course. The last 6.4 kms. (4 miles) of the journey are covered either by a pony or on foot and, with special permission, by jeep also. At the end of the climb, the visitor is rewarded with a magnificent view of Gulmarg which has numerous walks and picnic spots.

Pahalgam: In the lovely Lidder Valley, about 97 kms. (60 miles) from Srinagar is known for its exquisite scenery, springs and streams. It is also the base for treks to higher points like Amarnath and Sheshnag.

Kulu and Kangra Valleys: Well-known for its picturesque landscapes and historic temples, lies in Himachal Pradesh. 33.7 kms. (21 miles) from Kangra is the famous temple of Jwala-Mukhi, built up against a rocky cliff. An inflammable gas issues forth from a cleft in the cliff, creating an atmosphere of reverence. Kangra has several tea gardens while Kulu is well-known for the fruit orchards. The winding narrow roads flanked and shaded by pink blossomed apricot trees, huge rhododendrons and blue and purple iris in different seasons lead to the hilltops that look down on a gorgeous alpine scenery. These valleys are favourite vacation places as the summer is never uncomfortably hot and offer sports like golf, tennis, swimming, hiking and trout fishing.

Here the simple and unsophisticated people are a contented lot with few needs and fewer worries. These happy-go-lucky people hold fairs and festivals throughout the year and it would be wise to check and be there on a festival.

Allahabad: (Also called Prayag): City in U.P. situated at the confluence of the Ganga, the Jamuna and the unseen Saraswati. The confluence is the holiest bathing place for Hindus. Every 12 years, Kumbha Mela (religious fair) is held attracting over four million pilgrims during the four weeks. The last one was held in Fenruary 1965. A smaller fair occurs every six years—Adha Kumbhi. The old Mughal fort contains an underground temple where well carved images are seen and the pilgrims worship at a small tree taking it to be the Eternal Banyan Tree (Akshaya Vata). 104.6 kms. (65 miles) from Allahabad is Kosambi, where the ruins of an ancient capital are being excavated.

Banaras: Now known as Varanasi, is more than a holy city of the Hindus; it represents a way of life. For more than a thousand years this centre of Hindu pilgrimage has lived a rich life haloed by tradition on the banks of the great river Ganga which reaches Varanasi in a graceful curve. For more than a thousand years great masses of people have come here from every corner of the country to receive spiritual sustenance.

The oldest city in the country and perhaps the oldest living city in the world, Varanasi has about 1,500 temples besides countless minor shrines which are thronged with pilgrims all the year round.

Sarnath, a Buddhist centre with many architectural ruins, is about 9.6 kms. (6 miles) from Varanasi. The Buddha preached his first sermon here.

Jaipur: Capital of Rajasthan State, it was planned and built by an astronomer-prince in the 18th century, when there were few planned cities even in Europe. "I have seen Jaipur, and now I can die" was how Max Lerner, a famed traveller, felt after having an eyeful of this beautiful pink city. Comparing it with Venice and Paris, he named Jaipur along with them as the three most beautiful cities of the world. But he found something more in Jaipur—a dream quality about the fabric of its delicate gossamer structure, its lattice work and pink terracotta. This picturesque city—a fantasy in stone—set in the heart of Rajasthan is encircled by rugged hills crowned with medieval fortresses reminiscent of the days when the valiant Rajputs fought fierce battles and long drawn out wars to save their beloved land from invading alien hordes. The city palace in the centre of Jaipur is now a museum of Rajput and Mughal miniature paintings, an armoury and rare manuscripts. The Hawai Mahal Palace of the winds—has so many windows with perforated screens that the breeze sweeps through them. Maharaja Jai Singh who built the city in 1727 was also a great astronomer. He built an observatory with instruments of his own design. About 11.2 kms. (7 miles) away is Amber palace perched on the slopes of a steep hill and surrounded by a lake. A majestic elephant takes the visitor up the slopes and into this mysterious palace that possesses the world's best chamber of mirrors. Jaipur pottery, brassware, sculpture, ivory and sandalwood work and jewellery have enjoyed a great reputation from ancient times.

Udaipur: In Rajasthan, is the romantic city of lakes with island palaces. The sprawling marble palaces with coloured glass of amber and pale jade reflect in the steel blue waters of the lake Pichola. Hundreds of green parrots lend colour to the early morning skies. Surrounded by wooded hills the city is aptly called the 'City of Dreams'. The Jag Nivas Palace with fountains and gardens and apartments with courts, has now been turned into the Lake Palace Hotel and offer the visitor a unique and unforgettable stay.

About 112.6 kms. (70 miles) from Udaipur is Chittorgarh. The ruins of this abandoned capital of Mewar speak eloquently of the many grim and glorious deeds of Rajput heroism and sacrifice which have almost become a myth.

Mount Abu: In Rajasthan (3,822 ft. above sea level) is famous for its Dilwara group of Jain temples (11th-13th century A.D.). Having the most intricate and finest marble carvings in India, these beautiful temples nestle among the lush green mango trees: Hills surround them on all sides and the scenic beauty is very enchanting. Abu is known for its variety of birds and the flowering trees in its jungles. It is reached by rail and road from Ahmedabad.

GAME SANCTUARIES

Bankatna Wild Life Sanctuary: In Uttar Pradesh.

Accommodation: 3 Forest Rest Houses.

Bharatpur Wild Life Sanctuary: In Rajasthan State.

Accommodation: India Tourist Development Corporation's Travel Lodge, Bharatpur; Forest Rest House, Shanti Kutir.

Darraha Wild Life Sanctuary: In Rajasthan.

Accommodation: Forest Rest House.

Corbett National Park: In Uttar Pradesh lying in the beautiful foothills of the Himalayas it is the haunt of tigers, leopards, deer and sambars, also hyenas, jackals and wild elephants. It is 294 kms. (183 miles) by road from Delhi. Best time to go there is between January and May.

Accommodation: Forest Rest House

Chandraprabha Sanctuary: Also in Uttar Pradesh is 72 kms. (45 miles) from Banaras. In 1957, it was selected as a suitable new home for the Indian lion and some of them were brought here from the Gir Forest in Gujarat. Nilgai, pig, chinkara, sambar and chital are also found here. Best time to go there is between December and April.

Accommodation: Tourist Hutments.

Dachigam Sanctuary: In Jammu and Kashmir State, it consists of Lower and Upper Dachigam, about 20 kms. (13 miles) from Srinagar, where one can still spot the famous but now very rare Kashmir stag. Black bear and pig are also found in this beautiful scenic surrounding.

Accommodation: Forest Rest House.

Dudhva National Park: Situated in Uttar Pradesh.

Accommodation: 2 Forest Rest Houses.

Nanda Devi Musk Deer Park: Kedarnath Forest Division has opened a musk deer park in *Nandadevi Wildlife Sanctuary* in Chamoli dist. of U.P. to preserve the rare and valuable musk deer.

Mount Abu Wild Life Sanctuary: In Rajasthan State.

Accommodation: Forest Rest House.

Ranthambore Wild Life Sanctuary: In Rajasthan State.

Accommodation: Jogi Mahal; Forest Rest House.

Sariska Game Sanctuary: In Rajasthan, near Delhi.

Accommodation: Tourist Bungalow.

Sultanpur Lake Bird Sanctuary: In Haryana State, 40 kms. from Delhi on the Gurgaon-Farrukhnagar Road.

Accommodation: Tourist Bungalow.

SOUTHERN REGION

Madras: Capital of Tamil Nadu is the gateway to a pleasant land, the city of an ancient civilisation exemplified in its many monuments of the past with a rich heritage of culture. Although being carried along on the stream of progressive development yet remaining largely unspoilt, Madras is one of the more attractive cities of India. Perhaps the first claim to fame for Madras is its wonderful foreshore of fine sandy beach stretching from the harbour to the limits of the city at the Adyar river and then beyond for many miles to the south. It is a source of pride to the people, for it is considered to be the second longest beach in the world. There are delightful gardens along its whole length with many varieties of flowers.

Speaking of culture the visitor instantly feels the difference between the rest of India and the south in this city which can be the starting point for an introduction to the Dravidian culture. The many invasions of the aliens never quite reached upto the south and the pureness of this culture remains intact. The temples, the music and the dance all vibrate in its original form and one should never leave Madras without seeing a Bharat Natya dance performance. Much of the poses and stances of this dance are depicted in the sculptures of the South Indian temples.

Mahabalipuram: 59.5 kms. (37 miles) out of Madras are some of the ruins of the great Pallava Empire. The shore temple, a little gem of a shrine, stands poised on the very shore, the waves beating against it. The cave temples are store-houses of art. The so-called pagodas are carved out of rocks in the form of temple chariots and are the chief glory of Mahabalipuram.

Conjeevaram (Kanchipuram): The city of temples, the Banaras of the South, is about 72 kms. (45 miles) to the south-west of Madras. The place is divided into three parts, Shiva Conjeevaram, Vishnu Conjeevaram and Pillayar Paliyam, a testimony to the part played by all the main Hindu religious sects in the history of the city.

There are over a thousand temples in all, amongst them is the temple of Kailasnath, believed to be 1,200 years old and contains some excellent 7th and 8th century paintings on the walls. More of these wall paintings are seen in the Vaikunthanath Perumal Temple which is also over 1,000 years old.

It is a one-day excursion trip from Madras, but one can stay at the Traveller's Lodge.

Pondicherry: 167 kms. (104 miles) by road from Madras. The atmosphere of a sleepy French provisional town still prevails here. It was returned to India in 1954 after the French rule of 250 years. The main attraction of this place is the ashram of the philosopher Aurobindo Ghose.

Auroville 'the City of Dawn' is being built on the outskirts Pondicherry. It will be the first 'World City' where any national have a home.

Kanya Kumari or Cape Comorin: In Tamil Nadu, named from t temple of Kumari (an attribute of Parvati) is at the southern-m tip of the Indian peninsula. Here the Arabian sea and the Bay Bengal meet the Indian Ocean. According to a legend Siva marr the Goddess Parvati, daughter of King Himalaya on the ro where the temple now stands. Offshore are the two rocks wh Swami Vivekananda sat in meditation before he left for the Uni States. Now on them stands a huge and imposing memorial to Swami.

Ootacamund: Ooty for short, is a hill station in Tamil Nadu. O 2,286 m. (7,500 ft.) above sea-level, Ooty has a temperate clim The rainfall rarely exceeds 1,016 mm. (40 in.) so that Ooty h excellent weather throughout the year, and during the season fr April to June, it ranks amongst the gayest resorts in India reposes in an amphi-theatre surrounded by four great hills. On t slopes of the hills are residential and office buildings. At t bottom of the valley enclosed by them is Ooty's artificial la which could pass for a natural one. Conceived by Sullivan in 18 and meant for irrigation, it turned out to be so lovely that it w preserved for its sheer beauty. The lake provides facilities f boating and fishing. West of this are the Wenlock Downs— expanse of undulating springy turf embellished with woods a streams. Here are also the golf-links. These downs are the ho country of the Ootacamund Hunt.

The terraced Botanical Gardens, a landmark in Ootacamu were laid out by an expert from London's Kew Gardens, over century ago. It has many rare trees and flowering plants. Oot flower, fruit and vegetable shows are attended by people from over the Nilgiris, and here the fashionable jostling with the trib folk present a colourful spectacle.

Kodaikanal: Famous hill station on the Palni Hills in Tamil Nadu is about 2,343 m. (7,688 ft.) above sea-level and has a tempera climate. The place affords plenty of scope for such recreations walking, hiking, boating, fishing, hill climbing and golf. For t more adventurous there is big game hunting. Kodaikanal is t delight of the gardener and flowers are in bloom all the year rou The long winding road up the hill reminds one of the road up Sorento in Italy. The greenery on the way is breathtaking. T different waterfalls make Kodaikanal a truly beautiful vacati spot. A manmade lake with a three-mile shady promenade arou it is the popular place in the evenings. Kodaikanal has a hint o place somewhere on the continent with chalet-type houses perch at random on the slopes of the Palni Hills.

Cochin: In Kerala it is one of the important ports on the west co of India and, yet it is very different than a typical commercial po Shady lagoons, wooded islands, ancient palaces and churches a encircled by canals of palm fringed shimmering backwaters. In f Cochin is a cluster of islands and towns linked by bridges.

In Mattancheri is the community of Jews that came to Kerala early as the 1st Century A.D.

A side trip down the west coast to Alleppey and then on Quilon on the backwaters, offers breathtaking scenery. Lu vegetation and palm thatched villages are dotted with churches Portuguese colonial style.

Trivandrum: The sea-side capital of Kerala is built like Rome, hills. Many parks and lovely buildings with their gabled roofs, sta on low hillocks, while the restful valleys below are adorned w coconut groves. Trivandrum means "the place of the sacred sna Anant". The imposing temple of Sri Padmanabhaswami is de cated to the Hindu God Vishnu, his image reclining on Sheshna the enormous hooded serpent.

A long drive from Alleppey to Trivandrum via Quilon has a ve picturesque scenery along the west coast of India.

Mysore: It has a quiet charm so characteristic of a university tow For long the seat of an ancient ruling family, it has a good deal colour and glamour. Besides palaces and gardens this place is famous for its ivory and sandalwood carvings and cast metal statuettes.

EXCURSIONS OUT OF MYSORE

Srirangapatna: The city of Lord Ranganath—takes its name from the imposing temple of Vishnu. This quiet island-town on river Kaveri 16 kms. (10 miles) from Mysore, is reminiscent of many battles and past glories. On special occasions devout Hindus pass through this place to bathe in the river and to worship in this shrine.

Tipu Sultan, son of Hyder Ali, inherited a large dominion from his father. Srirangapatna was its capital and it became the centre of diplomatic manoeuvres against the rising power of the British. Tipu's summer palace in the midst of an exquisite garden on the river bank has large panels with paintings depicting battle scenes and processions that recall episodes from his and his father's life. The walls, pillars, arches and roofs are covered with an amazing variety of painted designs made gorgeous by a liberal use of gold.

Sravana Belgola: Wedged in between two hills, which rise abruptly from a flat plain, Sravana Belgola dominates the countryside for four miles with its 17.37 m. (57 ft.) high Jain colossus of Lord Gomateswara, shaped out of a single rock. This monolithic statue was carved in 983 A.D.

The town, a flourishing centre of Jain pilgrimage, abounds in monuments that recall the achievements of a bygone age. It is about 100 kms. (62 miles) from Mysore.

Belur: 56.3 kms. (35 miles) from Sravana Belgola is Belur, 800 years ago a flourishing capital of the Hoysala kings. Its chief place of interest is the 12th century temple of Chenna Keshava, a manifestation of Vishnu. Its outer walls are decorated with an amazing variety of carvings. No description can do justice to the infinite patience and skill with which the sculptors fashioned the intricate details of the scroll work, the niches, the elephants, the miniature turrets and human figures and gods. The interior of the temple also displays a profusion of artistic skill lavished on the pillars, ceilings, doorways, and bracket figures.

Halebid: 12.8 kms. (8 miles) from Belur, it was the metropolis of the ancient Hoysala rulers. The Lord Siva temple built about the same time as the Belur temple has every inch of its outer wall covered with friezes of great variety. Remarkable for artistic skill the sculptured elephants, horses, mythical beasts and birds, the scroll work of infinite beauty and variety, and the big panels of gods and goddesses of the Hindu pantheon running all round the walls.

Usually all these places are visited from Mysore in a day and a half's trip with a night stop at the comfortable Traveller's Lodge at Hassan.

Bijapur: Town in Karnataka State, capital of the old Adilshahi Sultans of Bijapur is rich with the remains of palaces, mosques and tombs. Gol Gumaz the vast mausoleum of Mohammed Adil Shah (17th century) has a dome which is the second largest in the world with St. Peter's at Rome bigger by merely 15 feet. The Whispering Gallery inside the dome is so constructed that a soft whisper at one point of the gallery can be heard most distinctly at the opposite point. Jama Masjid of Bijapur is the greatest mosque in the south and also one of the finest in India.

GAME SANCTUARIES

Rangathittoo Bird Sanctuary: It is a mile away from Srirangapatna and 14.4 kms. (9 miles) from Mysore, Consisting of islets in the Kaveri river, it is inhabited by a variety of storks. Primarily it is a breeding place for herons. Also during the months of June to August other birds like white ibis, Indian dartar, cormorant and cattle egret breed here.

Accommodation: Travellers' bungalow at Srirangapatna.

Bandipur Sanctuary: 78.8 kms. (49 miles) from Mysore on the road to Ooty is the game preserve of the former rulers of Karnataka State. This sanctuary now shelters herds of wild elephants, the Indian 'bison', the spotted deer, tiger, sloth bear and leopard. Tame elephants can be hired for a ride around the sanctuary and it can be visited at any time of the year.

Accommodation: Three forest lodges and one travellers' bungalow.

Mudumalai Sanctuary: Adjacent to Bandipur is this sanctuary of 295 sq. kms. (114 sq. miles). Gaur, sambar, elephant, barking deer, chital, wild boar and occasionally a tiger or a leopard are seen here. A variety of birds are also found here. It is 96.5 kms. (60 miles) from Mysore.

Accommodation: Kargudi Rest House, Log House at Masinagudi; Log House, Theppakadu.

Nagarhole Sanctuary: It is 228 kms. (142 miles) from Mysore via Mercara. Wild elephant, deer, panther, jackal and if one is lucky, the tiger can be spotted here. One can stay at the Forest Lodge.

Dandeli Sanctuary: It is well-known for elephant, bisons, panther, tiger, sambar and chital. The place abounds in excellent viewpoints and beauty spots. It is about 76 kms. (47 miles) from Dharwar by road which is connected with the nearest airport Belgaum by rail (121 kms. or 75 miles). The sanctuary, which is not accessible during the monsoon months of June to October covers an area of 207 sq. kms. (80 sq. miles).

Accommodation: Four forest bungalows at Dandeli.

Mahavir Abhayaranya: (wild life sanctuary) is situated on Goa-Karnataka border near Belgaum. The denizens include a large variety of big and small game and birds.

Periyar Sanctuary: One of the finest spots in the country, the wild life sanctuary at Thekkady in Kerala consists of an artificial lake of 26 sq. kms. (10 sq. miles), in a sanctuary of 673 sq. kms. (260 sq. miles). It is famous for its wild elephants besides Indian 'bison', sambar and stray panther and tiger. October to May are the best months for a visit. Motor boats take visitors about on the lake from where all these animals can be watched in comfort.

Accommodation: Lake Palace (Edapalayam), Thekkady; Inspection Bungalow, Thekkady; Forest Rest Houses at Thannikudy and Mannakkavala.

Vedanthangal Bird Sanctuary: 139.8 kms. (54 miles) south of Madras this small sanctuary breeds birds, like white ibis, night heron, spoon bill, open bill stork, Indian darter, grey heron, egret and two species of cormorant. Good months to visit are from November to February.

Accommodation: Rest House, Vedanthangal.

WESTERN REGION

Bombay: Arriving by sea or by air, one is struck by its natural setting—the far-away blue outlines of the majestic Western Ghats, the calm sea dotted with fishing boats, the palm fringed beaches and on the outskirts smoke rising from a thousand chimneys in the mill area—a reminder that Bombay is one of the largest industrial cities of the East.

A cosmopolitan city, it owes its prosperity to the industry and enterprise of its population of eight million. Bombay is a city of contrasts where the rich and the poor, the educated and the illiterate, the modern and the ancient co-habit. It is the largest city in India which has grown out of seven islands. Over the years the islands merged into one another by reclamation of land from the sea.

Excursions Around Bombay: About 38.8 kms. (15 miles) to the north of the city is Juhu, the palm-fringed natural beach, ideal for bathing. Juhu has good hotels, while shacks and villas along the beach can also be rented.

Some 15 kms. (6 miles) across the Bombay harbour, on a small island are the famous cave temples of Elephanta. Five in all, these cave temples date back to the eighth century. The main cave, dedicated to Siva, has huge sculptures and panels in relief. The most striking of the images is the Maheshmurti, a 6 m. (19 ft.) high, three headed bust hewn from a single rock representing the triple aspect of the Hindu Divinity.

There are a number of rock-cut monuments around Bombay. The more well-known among them are the Kanheri group of Buddhist caves and the series of shrines and monasteries known as Karla, Bhaja and Bedsa.

Aurangabad: In Maharashtra is where Emperor Aurangzeb built a replica of the Taj, Bibi-ka-Maqbara, a mausoleum for his wife. It has its own splendour and grace quite different than the Taj.

Close to Aurangabad is Daulatabad. "City of Fortune", built in the 14th century by a Sultan of Delhi, who was mad enough to try to move here the whole population of Delhi, which is some 1,813 kms. (700 miles) away.

Ajanta-Ellora: An hour and a half's flight from Bombay is Aurangabad, the starting point of a journey to two of the world's famous rock-cut temples—Ajanta and Ellora, the most remarkable monuments of their kind in the world. These monasteries and shrines have been hewn out of living rock by generations of sculptors. Ajanta, 170 kms. (66 miles) from Aurangabad, lies in a narrow gorge and contains a breathtaking picture gallery of frescoes. It is believed that these caves were cut in stages between the 2nd century B.C. to about 7th century A.D.

The Ellora caves situated 38.8 kms. (15 miles) from Aurangabad are excavated in the face of a hill and run north to south for a mile and a quarter. The crescent-shape hill has Buddhist, Hindu and Jain cave temples with a unique collection of sculptures. These caves are about a thousand years old.

Ahmedabad: Is the second largest textile centre in India. It contains numerous monuments of the fifteenth and sixteenth centuries, amongst them are the Shaking Minarets which are architectural wonders. Mahatma Gandhi's ashram is situated on the banks of the river Sabarmati. A 45-minute Son-et-Lumiere show brings the ashram alive giving its history and an insight into the life of Mahatma Gandhi.

Goa: Cradled among the picturesque hills of the western ghats, its panoramic beauty, its smiling green valleys and its luxuriant tropical vegetation, its quaint houses and the ruins of old and historic buildings which bring ancient splendour to life, all combine to make it an earthly paradise. Once a Portuguese possession in India, Goa has numerous beautiful beaches, where one can sun-bathe, swim or just laze away in the vast expanse of dazzling white sands fringed with swaying palm trees.

The remnants of the Portuguese civilisation can be seen in the old Goa. Among the still surviving ancient Portuguese churches is the Basilica and the Convent of St. Francis Xavier, built in the 16th century, where the body of St. Francis Xavier, patron saint of Goa, is enshrined in an exquisitely carved glass and silver-casket.

Goa is easily reached from Bombay by a 75 minutes flight by the Indian Airlines.

GAME SANCTUARIES/NATIONAL PARKS

Gir Forest: Roaming the dry open shrub land of the Gir Forest is a population of about 200 lions and cubs. The Gir is the last remaining habitat of the Asian lion. The best time to see them is from December to May. Wild bear, panther, sambar, blue bull and deer of different varieties also live in this forest along with a number of varied birds. The nearest airport is Keshod, 86.9 kms. (54 miles) by road from Sassan Gir. Keshod is connected with Bombay by weekly air service during the season.

Accommodation: Forest Bungalow (Sassan Gir).

Borivli National Park: In Maharashtra State, Bombay.

Accommodation: Tourist Cabins.

Nal Sarovar Bird Sanctuary: In Gujarat State.

Accommodation: Holiday Home; Nala Sarovar Gypsy Huts.

Bondla Game Sanctuary: In Goa.

Accommodation: Forest Rest House.

Mollem Game Sanctuary: In Goa.

Accommodation: Forest Rest House.

Cottigao Game Sanctuary: In Goa.

Accommodation: Forest Rest House.

Nagzira Wild Life Sanctuary: In Maharashtra State.

Accommodation: Rest House.

Tansa Lake Wild Life Sanctuary: In Maharashtra State near Bombay.

Accommodation: Rest House, Tansa.

TOURIST TRAFFIC

Foreign Tourist Arrivals in India — 1982.

(These statistics relate to foreign tourists excluding Nationals of Nepal entering India through land routes and all foreigners entering India from Bhutan by land).

A total of 1,288,162 foreign tourists visited India during 1982 recording an increase of 0.7 per cent over 1981.

The foreign exchange earnings from tourism for the year 1982 were estimated at Rs. 7,500 million compared to Rs. 7,020 million for 1981.

TIME DIFFERENCE

THE following table gives the time in the various important cities of the world when it is 5.30 p.m. in India. The calculations are based on Greenwich time i.e. when it is 12 noon at Greenwich, England, it is 5.30 p.m. in India.

Accra, Ghana	12 Noon
Adelaide, Australia	9.30 p.m.
Algiers	1.00 p.m.
Amsterdam, Netherlands	1.00 p.m.
Ankara, Turkey	2.00 p.m.
Athens, Greece	2.00 p.m.
Baghdad, Iraq	3.00 p.m.
Baltimore, U.S.A.	7.00 p.m.
Bangkok, Thailand	7.00 p.m.
Belgrade, Yugoslavia	1.00 p.m.
Berlin, Germany	1.00 p.m.
Berne, Switzerland	1.00 p.m.
Boston, U.S.A.	7.00 p.m.
Brisbane, Australia	10.00 p.m.
Brussels, Belgium	1.00 p.m.
Budapest, Hungary	1.00 p.m.
Buenos Aires, Argentina	9.00 a.m
Cairo, Egypt	2.00 p.m
Calgary, Canada	5.00 a.m
Canberra, Australia	10.00 p.m
Cape Town, South Africa	2.00 p.m
Chicago, U.S.A.	6.00 a.m
Colombo, Ceylon	5.30 p.m
Copenhagen, Denmark	1.00 p.m
Darwin, Australia	9.30 p.m
Detroit, U.S.A.	7.00 a.m
Dublin, Ireland	12 Noo
Freetown, Sierra Leone	12 Noo
Gibraltar	1.00 p.m
Halifax, Nova Scotia	8.00 a.m
Hamilton, Bermuda	8.00 a.m
Havana, Cuba	7.00 a.m
Helsinki, Finland	2.00 p.m
Hong Kong	8.00 p.m
Honolulu, Hawaii	2.00 p.m
Jerusalem, Israel	2.00 p.m

Johannesburg, S. Africa	2.00 p.m.
Karachi, Pakistan	5.00 p.m.
Kingston, Jamaica	7.00 a.m.
Kuala Lumpur, Malaysia	7.30 p.m.
Lagos, Nigeria	1.00 p.m.
Leningrad, U.S.S.R.	3.00 p.m.
Lima, Peru	7.00 a.m.
Lisbon, Portugal	12 Noon
London	12 Noon
Los Angeles, U.S.A.	4.00 a.m.
Luxembourg	1.00 p.m.
Madrid, Spain	1.00 p.m.
Mandalay, Burma	6.30 p.m.
Melbourne, Australia	10.00 p.m.
Mexico City	6.00 a.m.
Montevideo, Uruguay	9.00 a.m.
Montreal, Canada	7.00 a.m.
Moscow, U.S.S.R.	3.00 p.m.
Nairobi, Kenya	3.00 p.m.
New York	7.00 a.m.
Nicosia, Cyprus	2.00 p.m.
Oslo, Norway	1.00 p.m.
Ottawa, Canada	7.00 a.m.
Panama	7.00 a.m.
Paris	1.00 p.m.
Peking, China	8.00 p.m.
Perth, Australia	8.00 p.m.
Port of Spain, Trinidad	8.00 a.m.
Prague, Czechoslovakia	1.00 p.m.
Quebec, Canada	7.00 a.m.
Quito, Ecuador	7.00 a.m.
Reykjavik, Iceland	11.00 a.m.
Rio de Janeiro	9.00 a.m.
Rome	1.00 p.m.
St. John's, Newfoundland	8.30 a.m.
Salisbury, Southern Rhodesia	2.00 p.m.
San Francisco, U.S.A.	4.00 a.m.
Santiago, Chile	8.00 a.m.
Seoul, Korea	8.30 p.m.
Singapore	7.30 p.m.
Stalingrad, U.S.S.R.	4.00 p.m.
Stockholm, Sweden	1.00 p.m.
Sofia, Bulgaria	2.00 p.m.
Suva, Fiji	12 Midnight
Sydney, Australia	10.00 p.m.
Teheran, Iran	3.30 p.m.
Tirana, Albania	1.00 p.m.
Tokyo, Japan	9.00 p.m.
Toronto, Canada	7.00 a.m.
Vancouver, Canada	4.00 a.m.
Vienna, Austria	1.00 p.m.
Warsaw, Poland	1.00 p.m.
Wellington, New Zealand	12 Midnight
Winnipeg, Canada	6.00 a.m.

[illegible] = 13.58

SPORTS

6 + [illegible] = 6+5 = 11 ½ 58

THE origin of Olympic games goes back to Olympia in Greece which was held in honour of Zeus and dates back to 776 B.C. to 394 A.D. Olympiads covered the four years between each celebration of the Olympic games. The festivals included competitions in literature, art, drama, rhetoric, music and gymnastics. In 1896 Baron Pierre de Coubertin fathered the modern Olympic Games. "The important thing" he said, "in the Olympic Games is not winning but taking part. The essential thing in life is not conquering but fighting well."

The U.S.A. boycotted the 1980 Moscow Olympics because of the Soviet intervention in Afghanistan.

The other major powers who stayed away from joining the Olympics were China, Japan, West Germany and Canada. Only 81 nations took part in the Olympic games in 1980.

OLYMPIC CHAMPIONS

Track and Field-Men

Year	*Winner*	*Country*	*Time (Seconds)*
	100 Metres		
1896	Thomas Burke	U.S.A.	12.0
1900	Francis Jarvis	"	10.8
1904	Archie Hahn	"	11.0
1908	Reginald Walker	S. Africa	10.8
1912	Ralph Craig	U.S.A.	10.8
1920	Charles Paddock	"	10.8
1924	Harold Abrahams	G.B.	10.6
1928	Percy Williams	Canada	10.8
1932	Eddie Tolan	U.S.A.	10.3
1936	Jessie Owens	"	10.3
1948	Harrison Dillard	"	10.3
1952	Lindy Remigino	"	10.4
1956	Bobby Morrow	"	10.5
1960	Armin Hary	Germany	10.0
	100 Metres (Contd.)		
1964	Bob Hayes	U.S.A.	10.0
1968	Hines	"	9.9
1972	Valeriy Borzov	U.S.S.R.	10.14
1976	Hasley Crawford	Trinidad	10.06
1980	Allan Wells	G.B.	10.25
	200 Metres		
1900	J. Walter Tewksbury	U.S.A.	22.2
1904	Archie Hahn	"	21.6
1908	Robert Kerr	Canada	22.6
1912	Ralph Craig	U.S.A.	21.7
1920	Allan Woodring	"	22.0
1924	Jackson Scholz	"	21.6
1928	Percy Williams	Canada	21.8
1932	Eddie Tolan	U.S.A.	21.2
1936	Jessie Owens	"	20.7
1948	Mel Patton	"	21.1
1952	Andrew Stanfield	"	20.7
1956	Bobby Morrow	"	20.6
1960	Livio Berruti	Italy	20.5
1964	Henry Carr	U.S.A.	20.3
1968	Smith	"	19.8
1972	Valeriy Borzov	U.S.S.R.	20.0
1976	Donald Quarrie	Jamaica	20.23
1980	Pietro Mennea	Italy	N.A.
	400 Metres		
1896	Thomas Burke	U.S.A.	54.2
1900	Maxey Long	"	49.4
1904	Harry Hilman	"	49.2
1908	Wyndham Halswelle	G.B.	50.0
1912	Charles Reidpath	U.S.A.	48.2
1920	Beville Rudd	S. Africa	49.6

Year	*Winner*	*Country*	*Time (seconds)*
	400 Metres (Contd.)		
1924	Eric Liddell	G.B.	47.6
1928	Ray Barbuti	U.S.A.	47.8
1932	William Carr	"	46.2
1936	Archie Williams	"	46.5
1948	Arthur Wint	Jamaica	46.2
1952	George Rhoden	"	45.9
1956	Charles Jenkins	U.S.A.	46.7
1960	Otis Davis	"	44.9
1964	Mike Larabee	"	45.1
1968	Evans	"	43.8
1972	Vince Mathews	"	44.7
1976	Alberto Juantorena	Cuba	44.26
1980	Viktor Markin	U.S.S.R.	44.60
	800 Metres		
			(mts. seconds)
1896	Edwin Flack	G.B.	2.11.0
1900	Alfred Tysoe	"	2.01.4
1904	James Lightbody	U.S.A.	1.56.0
1908	Melvin Shepperd	"	1.52.8
1912	James Meredith	"	1.51.9
1920	Albert Hill	G.B.	1.53.4
1924	Douglas Lowe	"	1.52.4
1928	Douglas Lowe	"	1.51.8
1932	Thos. Hampson	"	1.49.8
1936	John Woodruff	U.S.A.	1.52.9
1948	Mal Whitfield	"	1.49.2
1952	Mal Whitfield	"	1.49.2
1956	Thomas Courtney	"	1.47.7
1960	Peter Snell	New Zealand	1.46.3
1964	Peter Snell	"	1.45.1
1968	Doubell	Australia	1.44.3
1972	David Wottle	U.S.A.	1.45.9
1976	Alberto Juantorena	Cuba	1.43.50
1980	Steve Ovett	G.B.	1.45.40
	1,500 Metres		
1896	Edwin Flack	G.B.	4.33.2
1900	Charles Bennett	"	4.06.2
1904	James Lightbody	U.S.A.	4.05.4
1908	Melvin Shepperd	"	4.03.4
1912	Arnold Jackson	G.B.	3.56.8
1920	Albert Hill	"	4.01.8
1924	Paavo Nurmi	Finland	3.53.6
1928	Harry Larva	"	3.53.2
1932	Luigi Beccali	Italy	3.51.2
1936	Jack Lovelock	New Zealand	3.47.8
1948	Henry Eriksson	Sweden	3.49.8
1952	Joseph Barthel	Luxembourg	3.45.2
1956	Ron Delaney	Ireland	3.41.2
1960	Herbert Eliot	Australia	3.35.6
1964	Peter Snell	New Zealand	3.38.1
1968	K. Keino	Kenya	3.34.9
1972	Pekka Vasala	Finland	3.36.3
1976	John Walker	New Zealand	3.39.17
1980	Sebastian Coe	G.B.	3.38.40
	5,000 Metres		
1912	Hannes Kolehmainen	Finland	14.36.6
1920	Joseph Guillemot	France	14.55.6
1924	Paavo Nurmi	Finland	14.31.2
1928	Willie Ritola	"	14.38.0
1932	Lauri Lehtinen	"	14.30.0
1936	Gunnar Hockerd	"	14.22.2
1948	Gaston Reiff	Belgium	14.17.6
1952	Emil Zatopek	Czechoslovakia	14.06.6
1956	Vladimir Kuts	U.S.S.R.	13.39.6

Year	*Winner*	*Country*	*Time (Seconds)*
	5,000 Metres (Contd.)		
1960	Murray Halberg	New Zealand	13.43.4
1964	Bob Schul	U.S.A.	13.48.8
1968	Gammoudi	Tunisia	14.05.0
1972	Lasse Viren	Finland	13.26.4
1976	Lasse Viren	"	13.27.76
1980	Miruts Yifter	Ethiopia	13.21.00
	10,000 Metres		
1912	Hannes Kolehmainen	Finland	31.20.8
1920	Paavo Nurmi	"	31.45.8
1924	Willie Ritola	"	30.23.2
1928	Paavo Nurmi	"	30.18.8
1932	Janusz Kusocinski*	Poland	30.11.4
1936	Ilmari Salmenin	Finland	30.15.4
1948	Emil Zatopek	Czechoslovakia	29.59.6
1952	Emil Zatopek	"	29.17.0
1956	Vladimir Kuts	U.S.S.R.	28.45.6
1960	Petr Bolotnikov	"	28.32.2
1964	Billy Mills	U.S.A.	28.24.4
1968	Temu	Kenya	29.27.4
1972	Lasse Viren	Finland	27.38.4
1976	Lasse Viren	"	27.40.38
1980	Miruts Yifter	Ethiopia	27.42.70
	Marathon		
			(hrs. mts. secs.)
1896	Spindon Loues	Greece	2.58.50.0
1900	Michel Teato	France	2.59.45.0
1904	Thomas Hicks	U.S.A.	3.28.53.0
1908	John Hayes	"	2.55.18.4
1912	Kenneth Macarthur	S. Africa	2.36.54.8
1920	Hannes Kolehmainen	Finland	2.32.35.8
1924	Albin Stenroos	France	2.41.22.6
1928	El Ouafi	"	2.32.57.0
1932	Juan Zabala	Argentina	2.31.36.0
1936	Kitei Son	Japan	2.29.19.2
1948	Delfo Cabrera	Argentina	2.34.51.6
1952	Emil Zatopek	Czechoslovakia	2.23.03.2
1956	Alain Mimoun	France	2.25.00.0
1960	Abebe Bikila	Ethiopia	2.15.16.2
1964	Abebe Bikila	"	2.12.11.2
1968	Wolde	"	2.20.26.4
1972	Frank Shorter	U.S.A.	2.12.19.7
1976	Waldemer Cierpinski	G.D.R.	2.09.55.0
1980	Waldemer Cierpinski	"	2.11.03.0
	20,000-Metre Walk		
1956	Leonid Spirine	U.S.S.R.	1.31.27.0
1960	Vladimir Golubnichy	"	1.34.07.2
1964	Kenneth Mathews	G.B.	1.29.34.0
1968	Vladimir Golubnichy	U.S.S.R.	1.33.58.4
1972	Peter Frenkel	E. Germany	1.26.42.6
1976	Daniel Batista	Mexico	1.24.40.6
1980	Maurizio Damilano	Italy	1.23.35.5
	50,000-Metre Walk		
1932	Thomas Greene	G.B.	4.50.10.0
1936	Harold Whitlock	"	4.30.41.4
1948	John Ljunggren	Sweden	4.41.52.0
1952	Guiseppe Dordoni	Italy	4.28.07.8
1956	Norm. Reed	New Zealand	4.30.42.8
1960	Donald Thomson	G.B.	4.25.30.0
1964	Abdon Pamich	Italy	4.11.12.4
1968	Hohne	G.D.R.	4.20.13.6
1972	B. Kannenberg	W. Germany	3.56.11.6
1980	Hartwig Gauder	G.D.R.	3.49.24

4x100-Metre Relay

Year and winner of gold medal (Country) respectively:

1912 Great Britain; 1920 United States; 1924 United States; 1928 United States; 1932 United States; 1936 United States; 1948 United States; 1952 United States; 1956 United States; 1960 Germany; 1964 United States; 1968 United States; 1972 United States; 1976 United States; 1980 U.S.S.R.

4x400-Metre Relay

1908 United States; 1912 United States; 1920 Great Britain; 1924 United States; 1928 United States; 1932 United States; 1936 Great Britain; 1948 United States; 1952 Jamaica; 1956 United States; 1960 United States; 1964 United States; 1968 United States; 1972 Kenya; 1976 United States; 1980 U.S.S.R.

110-Metre Hurdles

Year	*Winner*	*Country*	*Time (Seconds)*
1896	Thomas Curtis	U.S.A.	17.6
1900	Alvin Kraenzlein	”	15.4
1904	Fredrick Schule	”	16.0
1908	Forrest Smithson	”	15.0
1912	Fredrick Kelly	”	15.1
1920	Earl Thomson	Canada	14.8
1924	Daniel Kinsey	U.S.A.	15.0
1928	Sydney Atkinson	S. Africa	14.8
1932	George Saling	U.S.A.	14.6
1936	Forrest Townes	”	14.2
1948	William Porter	”	13.9
1952	Harrison Dillard	”	13.7
1956	Lee Calhoun	”	13.5
1960	Lee Calhoun	”	13.8
1964	Hayes Jones	”	13.6
1968	Davenport	”	13.3
1972	Rodney Milburn	”	13.24
1976	Guy Drut	France	13.30
1980	Thomas Munkelt	G.D.R.	13.39
	400-Metre Hurdles		
1900	J. Walter Tewksbury	U.S.A.	57.6
1904	Harry Hillman	”	53.0
1908	Charles Bacon	”	55.0
1920	Frank Loomis	”	54.0
1924	F. Morgan Taylor	”	52.6
1928	Lord David Burghley	G.B.	53.4
1932	Robert Tisdall	Ireland	51.8
1936	Glenn Hardin	U.S.A.	52.4
1948	Roy Cochran	”	51.1
1952	Charles Moore	”	50.8
1956	Glenn Davis	”	50.1
1960	Glenn Davis	”	49.3
1964	Rex Cawley	”	49.6
1968	Hemery	G.B.	48.1
1972	John Akii-Bua	Uganda	47.82
1976	Edwin Moses	U.S.A.	47.64
1980	Volker Beck	G.D.R.	48.70

3,000-Metre Steeplechase

Year	*Winner*	*Country*	*Time (hrs. mts. secs.)*
1920	Percy Hodge	G.B.	10.00.4
1924	Willie Ritola	Finland	9.33.6
1928	Toiva Laukola	”	9.21.8
1932	Volmari Iso-Hollo	”	10.33.4
1936	Volmari Iso-Hollo	”	9.03.8
1948	Thore Sjostrand	Sweden	9.04.6
1952	Horace Ashenfelter	U.S.A.	8.45.4
1956	Chris Brasher	G.B.	8.41.2
1960	Zdzislav Krzyszkowiak	Poland	8.34.2
	3.000-Metre Steeplechase (Contd.)		
1964	Gaston Roelants	Belgium	8.30.8
1968	Biwatte	Kenya	8.51.0
1972	Kip Keino	”	8.23.6
1976	Anders Garderud	Sweden	8.08.2
1980	Bronislaw Malinowski	Poland	8.09.70

Year	*Winner*	*Country*	*Height*
	Pole Vault		
1896	Welles Hoyt	U.S.A.	10′ 9¾″
1900	Irving Baxter	”	10′ 9.9″
1904	Charles Drovak	”	11′ 6″
1908	Albert Gilbert	”	12′ 2″
	Edward Cook	”	12′ 2″
1912	Harry Babcock	”	12′ 11½″
1920	Frank Foss	”	12′ 5.9″
1924	Lee Barnes	”	12′ 11½″
1928	Sabin Carr	”	13′ 9.3″
1932	William Miller	”	14″ 1.7″
1936	Earle Meadows	”	14′ 3¼″
1948	O. Guinn Smith	”	14′ 1¼″
1952	Robert Richards	”	14′ 11¼″
1956	Robert Richards	”	14′ 11½″
1960	Donald Bragg	”	15′ 5.1″
1964	Fred Hansen	”	16′ 8¾″
1968	Seagren	”	17′ 8½″
1972	Wolfgang Nordwig	E. Germany	18′ ½″
1976	Tedeusz Slusrasky	Poland	18′ ½″
1980	Wladydslaw Kozakiewiez	”	5.78 mtrs.
	High Jump		
1896	Ellery Clark	U.S.A.	5′ 11¼″
1900	Irving Baxter	”	6′ 2.4″
1904	Samuel Jones	”	5′ 11″
1908	Harry Porter	”	6′ 3″
1912	Alma Richards	”	6′ 4″
1920	Richard Landon	”	6′ 4¼″
1924	Harold Osborne	”	6′ 5.9″
1928	Robert King	”	6′ 4.3″
1932	Duncan Mcnaughton	Canada	6′ 5.5″
1936	Cornelius Johnson	U.S.A.	6′ 7.9″
1948	John Winter	Australia	6′ 6″
1952	Walter Davies	U.S.A.	6′ 8¼″
1956	Charles Dumas	”	6′ 11¼″
1960	Robert Shavlakadze	U.S.S.R.	7′ 1″
1964	Valerie Brumel	”	7′ 1¾″
1968	Fosbury	U.S.A.	7′ 4¼″
1972	Yuri Tarmak	U.S.S.R.	7′ 3½″
1976	Jacek Wszola	Poland	7′ 4½″
1980	Gerd Wessig	G.D.R.	2.36 mtrs.

Year	*Winner*	*Country*	*Length*
	Long Jump		
1896	Ellery Clark	U.S.A.	20′ 10″
1900	Alvin Kraenzlein	”	23′ 6.7″
1904	Myer Prinstein	”	24′ 1″
1908	Frank Irons	”	24′ 6½″
1912	Albert Gutterson	”	24′ 11¼″
1920	William Pettersson	Sweden	23′ 5½″
1924	DeHart Hubbard	U.S.A.	24′ 5.1″
1928	Edward Hamm	”	25′ 4¾″
1932	Edward Gordon	”	25′ ¾″

Long Jump (Contd.)

Year	Winner	Country	Length
1936	Jesse Owens	U.S.A.	26′ 5.3″
1948	Willy Steele	”	25′ 8″
1952	Jerome Biffle	”	24′ 10″
1956	Gregory Bell	”	25′ 8¼″
1960	Ralph Boston	”	26′ 7¾″
1964	Lynn Davis	G.B.	26′ 5½″
1968	Beamon	U.S.A.	29′ 2½″
1972	Randy Williams	”	27′
1976	Amie Robinson	”	27′ ½″
1980	Leet Dombrowski	G.D.R.	8.54 mtrs.

Triple Jump

Year	Winner	Country	Length
1896	James Connoly	U.S.A.	45′
1900	Myer Prinstein	”	47′ 4¼″
1904	Myer Prinstein	”	47′
1908	Timothy Ahearne	G.B.	48′ 11½″
1912	Gustaf Lindblom	Sweden	48′ 5.1″
1920	Vilho Tuulos	Finland	47′ 6.7″
1924	Archibald Winter	Australia	50′ 11.1″
1928	Mikio Oda	Japan	49′ 10 13/16″
1932	Chuhei Nambus	”	51′ 7″
1936	Naoto Tajima	”	52′ 5.7″
1948	Arne Ahman	Sweden	50′ 6¼″
1952	Adhemar Farreira da Silva	Brazil	53′ 2½″
1956	Adhemar Farreira da Silva	”	53′ 7½″
1960	Jozef Schmidt	Poland	55′ 1¾″
1964	Jozef Schmidt	”	55′ 3½″
1968	Viktor Saneev	U.S.S.R.	57′ ¾″
1972	Viktor Saneev	”	56′ 10″
1976	Viktor Saneev	”	50′ 8.7″
1980	Jaak Uudmae	”	17.35 mtrs.

16-lb. Shot-Put

Year	Winner	Country	Length
1896	Robert Garett	U.S.A.	36′ 9¾″
1900	Richard Sheldon	”	46′ 3.1″
1904	Ralph Rose	”	48′ 7″
1908	Ralph Rose	”	46′ 7½″
1912	Patrick McDonald	”	50′ 4″
1920	Ville Porhola	Finland	48′ 7.1″
1924	Clarence Houser	U.S.A.	49′ 2½″
1928	John Kuck	”	52′ 11/16″
1932	Leo Sexton	”	52′ 6 3/16″
1936	Hans Woelke	Germany	53′ 1¾″
1948	Wilbur Thompson	U.S.A.	56′ 2″
1952	Parry O'Brein, Jr.	”	57′ 1½″
1956	Parry O'Brein, Jr.	”	60′ 11″
1960	William Nieder	”	64′ 6¾″
1964	Dallas Long	”	66′ 8½″
1968	Matson	”	67′ 4¾″
1972	Wladyslaw Komar	Poland	69′ 5″
1976	Udo Beyer	G.D.R.	69′ ¾″
1980	Vladimir Kiselyov	U.S.S.R.	21.35 mtrs.

Discus Throw

Year	Winner	Country	Length
1896	Robert Garett	U.S.A.	95′ 7½″
1900	Rudolf Bauer	Hungary	118′ 2.9″
1904	Martin Sheridan	U.S.A.	128′ 10½″
1908	Martin Sheridan	”	134′ 2″
1912	Armas Taipale	Finland	145′ 9/16″
1920	Elmer Niklander	”	146′ 7″
1924	Clarence Houser	U.S.A.	151′ 5¼″
1928	Clarence Houser	”	155′ 2⅘″
1932	John Anderson	”	162′ 4.7″
1936	Kenneth Carpenter	”	165′ 7½″

Discus Throw (Contd.)

Year	Winner	Country	Len
1948	Adolfo Consolini	Italy	173′ 2″
1952	Sim Iness	U.S.A.	180′ 6½
1956	Alfred Oerter	”	184′ 10
1960	Alfred Oerter	”	194′ 2″
1964	Alfred Oerter	”	200′ 1½
1968	Alfred Oerter	”	212′ 6½
1972	Ludwik Danek	Czechoslovakia	210′ 2″
1976	Mac Wilkins	U.S.A.	221′ 5 4
1980	Viktor Resshchupkin	U.S.S.R.	66.64 mt

16-lb. Hammer Throw

Year	Winner	Country	Len
1900	John Flanagan	U.S.A.	167′ 4″
1904	John Flanagan	”	168′ 1″
1908	John Flanagan	”	170′ 4½
1912	Mathew McGarth	”	179′ 7.1
1920	Patrick Ryan	”	173′ 5.5″
1924	Frederick Tootell	”	174′ 10½
1928	Patrick O'Callaghan	Ireland	168′ 7½
1932	Patrick O'Callaghan	”	176′ 11
1936	Karl Hein	Germany	185′ 4¼
1948	Imre Nemeth	Hungary	183′ 11
1952	Jozsef Csermak	”	197′ 11
1956	Harold Connolly	U.S.A.	207′ 3½
1960	Vasily Rudenkov	U.S.S.R.	220′ 1.5
1964	Romuald Klim	”	228′ 10
1968	Zsivotzky	Hungary	240′ 8″
1972	Bandarchuck	U.S.S.R.	247′ 8″
1976	Yuri Sedykh	”	254′ 3¾″
1980	Yuri Sedykh	”	81.80 mt

Javelin Throw

Year	Winner	Country	Len
1908	Erik Lemming	Sweden	179′ 10
1912	Erik Lemming	”	198′ 11
1920	Jonni Myyra	Finland	215′ 9¾″
1924	Jonni Myyra	Finland	206′ 6¾″
1928	Erik Lundquist	Sweden	218′ 6⅛″
1932	Matti Jarvinen	Finland	238′ 7″
1936	Gerhard Stoeck	Germany	235′ 8 5/16
1948	Tapio Rautavaara	Finland	228′ 10½
1952	Cy Young	U.S.A.	242′ ¾″
1956	E. Danielson	Norway	281′ 2¼″
1960	Viktor Cybulenko	U.S.S.R.	277′ 8⅜″
1964	Pauli Nevala	Finland	271′ 2¼″
1968	Lusis	U.S.S.R.	295′ 7¼″
1972	Klaus Wolfermann	W. Germany	296′ 9½″
1976	Miklos Nemeth	Hungary	310′ 3¾″
1980	Dainis Kula	U.S.S.R.	91.20 mt

Decathlon

Year	Winner	Country	Points
1912	Hugo Wislander	Sweden	7724.
1920	Helge Lovland	Norway	6804
1924	Harold Osborn	U.S.A.	7710.
1928	Paavo Yrjola	Finland	8053.
1932	James Bausch	U.S.A.	8462.2
1936	Glenn Morris	”	7900.
1948	Robert Mathias	”	7139.1
1952	Robert Mathias	”	7887.
1956	Milton Campbell	”	7937.
1960	Rafer Johnson	”	8392.
1964	Willie Holdorf	Germany	7877.
1968	Toomey	U.S.A.	8193.
1972	Nikolai Avilow	U.S.S.R.	8454.
1976	Bruce Jenner	U.S.A.	8618.
1980	Daley Thompson	Britain	8495.

WOMEN'S

Track and Field

100-Metre

ar	Winner	Country	Time (Seconds)
28	Elizabeth Robinson	U.S.A.	12.2
32	Stanislawa Walasiewicz	Poland	11.9
36	Helen Stephens	U.S.A.	11.5
48	Fanny Blankers-Koen	Netherlands	11.9
52	Marjorie Jackson	Australia	11.5
56	Betty Cuthbert	”	11.5
60	Wilma Rudolph	U.S.A.	11.0
64	Wyomia Tyus	“	11.4
68	Wyomia Tyus	“	11.0
72	Renate Stecher	G.D.R.	11.07
76	Annegret Richter	W. Germany	11.01
80	Lyudmila Kondratyeva	U.S.S.R.	11.06

200-Metre

ar	Winner	Country	Time (Seconds)
48	Fanny Blankers-Koen	Netherlands	24.4
52	Marjorie Jackson	Australia	23.7
56	Betty Cuthbert	”	23.4
60	Wilma Rudolph	U.S.A.	24.0
64	Edith Meguire	”	23.0
68	Szewinska	Poland	22.5
72	Renate Stecher	G.D.R.	22.4
76	Baerbel Eckert	”	22.37
80	Barbel Woekel	”	22.03

400-Metre

ar	Winner	Country	Time (Seconds)
76	Iewn Szewinska	Poland	49.29
80	Marita Koch	G.D.R.	48.88

800-Metre

ar	Winner	Country	Time (Seconds)
28	Linda Radke	Germany	2.16.8
60	Ljudmilla Sehvcova	Poland	2.04.3
64	Ann Packer	G.B.	2.01.1
68	Manning	U.S.	2.00.9
72	H. Falck	W. Germany	1.58.6
76	Tatyana Kazankina	U.S.S.R.	1.54.94
80	Nadezhda Olizarenko	,,	1.53.50

1,500-Metre

ar	Winner	Country	Time (Seconds)
76	Tatyana Kazankina	U.S.S.R.	4.05.48
80	Tatyana Kazankina	,,	3.56.60

4×100-Metre Relay

ar	Winner	Country	Time (Seconds)
76		G.D.R.	0.42.55
80		,,	0.41.60

4×400-Metre Relay

Year and winner respectively: 1928 Canada; 1932 U.S.; 1936 .S.: 1948 Netherlands; 1952 U.S.; 1956 Australia; 1960 U.S.; 964 Poland; 1968 U.S.; 1972 W. Germany; 1976 G.D.R.; 1980 .S.S.R.

80-Metre Hurdles

ar	Winner	Country	Time (Seconds)
32	Mildred Didrikson	U.S.A.	11.7
36	Trebisonda Villa	Italy	11.7
48	Fanny Blankers-Koen	Netherlands	11.2
52	Shirley Strickland de la Hunty	Australia	10.9
56	Shirley Strickland de la Hunty	,,	10.7
60	Irina Press	U.S.S.R.	10.8
64	Karin Balzer	Germany	10.5
68	Caird	Australia	10.3

100-Metre Hurdles

Year	Winner	Country	Time (Seconds)
1972	Annelie Ehrhardt	G.D.R.	12.59
1976	Johanna Schaller	,,	12.77
1980	Vera Komisera	U.S.S.R.	12.56

High Jump

Year	Winner	Country	Height
1928	Ethel Catherwood	Canada	5′ 3″
1932	Jean Shiley	U.S.A.	5′ 5¼″
1936	Ebolya Csak	Hungary	5′ 3″
1948	Alice Coachman	U.S.A.	5′ 6⅛″
1952	Esther Brann	S. Africa	5′ 5¾″
1956	Mildred Macdaniel	U.S.A.	5′ 9¼″
1960	Iolanda Balas	Rumania	6′ ¼″
1964	Iolanda Balas	,,	6′ 2⅔″
1968	Rezkova	Czechoslovakia	5′ 11¾″
1972	Ulrike Meyfarth	G.D.R.	6′ 3¼″
1976	Rosemarie Ackermann	,,	6′ 3¾″
1980	Sara Simeoni	Italy	1.97 mtrs.

SWIMMING

Men

Year	Winner	Country	Time (mts. seconds)
100-Metre Freestyle			
1980	Woithe Jarg	G.D.R.	0.50.40
200-Metre Freestyle			
1980	Sergei Kopliakov	U.S.S.R.	1.49.81
400-Metre Freestyle			
1980	Vladimir Salnikov	U.S.S.R.	3.51.31
1,500-Metre Freestyle			
1980	Vladimir Salnikov	U.S.S.R.	14.58.29
4×200-Metre Freestyle			
1980	Sergei Kopliakov Vladimir Salnikov Ivor Stukolkin Anderi Kryov	U.S.S.R.	7.23.50
100-Metre Breaststroke			
1980	Duncan Goodhew	G.D.R.	1.03.34
200-Metre Breaststroke			
1980	Roberto Zulpa	U.S.S.R.	2.15.85
100-Metre Butterfly			
1980	Par Arvidsson	Swe.	0.54.92
200-Metre Butterfly			
1980	Sergei Fesenko	U.S.S.R.	1.59.76
100-Metre Backstroke			
1980	Bengt Baron	Swe.	0.56.33
200-Metre Backstroke			
1980	Sandor Wladar	Hun.	1.93.00
400-Metre Individual Medley			
1980	Aleksandr Sidorenko	U.S.S.R.	3.45.70
4×100-Metre Medley			
1980	Mark Kerry Peter Evans Mark Tonelli Neil Brooks	Aus.	4.08.76

Year	*Winner*	*Country*	*Time (mts. seconds)*
	WOMEN		
	100-Metre Freestyle		
1980	Barbara Krause	G.D.R.	0.54.79
	200-Metre Freestyle		
1980	Barbara Krause	G.D.R.	1.58.33
	400-Metre Freestyle		
1980	Ines Diers	G.D.R.	4,08,76
	800-Metre Freestyle		
1980	Michelle Ford	Aus.	8.28.90
	4×100-Metre Freestyle		
1980	Barbara Krause Caren Metschuch Ines Diers Sarina Hulsenbeck	G.D.R.	3.42.71
	100-Metre Breaststroke		
1980	Ute Geweniger	G.D.R.	1.10.22
	200-Metre Breaststroke		
1980	Lina Kachushite	U.S.S.R.	2.29.54
	100-Metre Butterfly		
1980	Caren Metschuck	G.D.R.	1.00.42
	200-Metre Butterfly		
1980	Ines Geissler	G.D.R.	2.10.44
	100-Metre Backstroke		
1980	Rica Reinisch	G.D.R.	1.00.86
	200-Metre Backstroke		
1980	Rica Reinisch	G.D.R.	2.11.77
	400-Metre Individual Medley		
1980	Petra Schneider	G.D.R.	4.36.29
	4×100-Metre Medley Relay		
1980	Rica Reinisch Ute Geweniger Andrea Pollack Caren Metschuck	G.D.R.	1,01,51

DIVING

Men's

Year	*Winner*	*Country*	*Points*
	Springboard		
1980	Aleksandr Pertna	U.S.S.R.	905.025
	Platform		
1980	Falk Hoffmann	G.D.R.	835.650
	Women's Springboard		
1980	Irina Kalinina	U.S.S.R.	725.910
	Platform		
1980	Martina Jaschke	G.D.R.	596.250

Discus Throw

Year	*Winner*	*Country*	*Length*
1928	Helena Konopacka	Poland	129′ 11⅞″
1932	Lillian Copland	U.S.A.	133′ 2″
1936	Gisela Mauermayer	Germany	156′ 3³⁄₁₆″
	Discus Throw (Contd.)		
1948	Micheline Ostermayer	France	137′ 6½″
1952	Nina Romaschkova	U.S.S.R.	168′ 8½″
1956	Olga Fikotova	Czechoslovakia	165′ 7″
1960	Nina Ponomareva	U.S.S.R.	180′ 8¼″
1964	Tamara Press	,,	187′ 10¾″
1968	Manoliu	Rumania	191′ 2½″
1972	Faina Melnik	U.S.S.R.	218′ 7″
1976	Evelin Schlaak	G.D.R.	226′ 4½″
1980	Evelin Jahl	,,	69.96 mtr
	Javelin Throw		
1932	Mildred Didrikson	U.S.A	143′ 4″
1936	Tilly Fleischer	Germany	148′ 2¾″
1948	Herma Bauma	Austria	149′ 6″
1952	**Dana Zatopekova**	**Czechoslovakia**	165′ 7″
1956	Inessa Janzeme	U.S.S.R.	176′ 8″
1960	Elvira Ozolina	,,	183′ 8″
1964	Mihaela Penes	Rumania	198′ 7½″
1968	Nemeth	Hungary	198′ ½″
1972	Ruth Fuchs	G.D.R.	209′ 7″
1976	Ruth Fuchs	,,	216′ 4″
1980	Maria Colon	Cuba	68.40 mtrs
	Pentathlon		
1976	Sigrun Siegl	G.D.R.	4,745 pts.
1980	Nadezhda Tkachenko	U:S.S.R.	5,038 pts.
	Shot-Put		
1948	Micheline Ostermayer	France	45′ 1½″
1952	Galina Zybina	U.S.S.R.	50′ 1½″
1956	Tamara Tishkyeovich	,,	54′ 5″
1960	Tamara Press	,,	56′ 9⅞″
1964	Tamara Press	,,	59′ 6¼″
1968	Gummel	E. Germany	64′ 4″
1972	Nadezhda Chizhova	U.S.S.R.	69′ 0″
1976	Ivanka Khristova	Bulgaria	69′ 5″
1980	**Ilona slupianck**	G.D.R.	22.41 mtrs
	Long Jump		
1948	Olga Gyarmati	Hungary	18′ 8¼″
1952	Yvette Williams	New Zealand	20′ 5¾″
1956	Elizbeita Krezeskinska	Poland	20′ 9¾″
1960	Vera Krepkina	U.S.S.R.	2′ 10¾″
1964	Mary Rand	G.B.	22′ 2½″
1968	Niscopoleanu	Rumania	22′ 4½″
1972	Heide Rosendahl	W. Germany	22′ 3″
1976	Angela Voigt	G.D.R.	22′ 2½″
1980	Tatyana Kolpakova	U.S.S.R.	7.06 mtrs.

YACHTING (1980)

Soling Class (Den.): Paul Jensen, Valdeman Bandolowski, Erik Hansen: **Star Class** (USSR): Velentin Mankin, Alexandr Muzymchenko; **Flying Dutchman Class** (Spain): Alejandro Abascal Miguel Noguer; **470 Class** (Braz): Marcas Soares, Eduardo Penido, **Finn Class** (Fin.): Esko Rechardt; **Tornado Class** (Braz.): Alexandre Welter, Lars Bjorkstorm.

JUDO (1980)

Winners:

Open Category (No Weight limit): Dietmar Loreng (G.D.R.), *Heavyweight* (Over 95 kg.): Angelo Parisi (France); *Light Heavyweight* (upto 95 kg.); Robert Van der Walle (Bel.); *Light Middleweight* (upto ·78 kg.): Shota Khambarelin (U.S.S.R.); *Lightweight* (upto 71 kg.): Ezio Gamba (Ita.); *Featherweight* (upto 65 kg.): Nikolai Solodukhin (USSR) *Bottomweight*)upto 60 kg.): Thierry Rey (France).

MODERN PENTATHLON (1980)

Individual: Anatoly Starostin (USSR): **Team:** Anatoly Starostin, Pavel Lednev, Evgeny Lipeev (USSR).

GYMNASTICS (1980)

Men

Winners: **Team Competition:** (USSR) 589.6; **Combined Exercises** (Individual): Alexandr Dityatin (USSR) 118.65; **Floor Competition;** Roland Bruckner (GDR) 19.75; **Side Horse:** Zoltan Magyar (Hun.) 19.925; **Rings:** Alexandr Dityatin (USSR) 19.875; **Horse Vault:** Nikolai Andrianov (USSR) 19.825; **Parallel Bars:** Alexandr Tkachyov (USSR) 19.775; **Horizontal Bars:** Stoyan Deltchev (Bul.) 19.825.

Women

Team Competition: (USSR) 394.9; **Combined Exercises** (Individual): Yelena Davydova (USSR) 79.15; **Horse Vault:** Nataliya Shaposhnikova (USSR): 19.725; **Asymmetrical Bars:** Maxi Gauck (GDR) 19.875; **Balance Beam:** Nadia Comaneci (Rum.) 19.8; **Floor Exercises:** Nadia Comaneci (Rum.) 19.875; Nelli Kim (USSR) 19.875.

WRESTLING (1980)

FREESTYLE: Lightweight (upto 48 Kg.): Clandio Pollio (Ita.); **Flyweight** (upto 52 Kg.): Anatoly Beloglazon (USSR); **Bantamweight** (upto 57 Kg.): Sergei Beloglazov (USSR); **Featherweight** (upto 62 Kg.): Magomidgasan Abushev (USSR); **Lightweight** (upto 68 Kg.): Saipula Absaidovan (USSR); **Welterweight** (upto 74 Kg.): Valentin Raitchev (Bul.); **Middleweight** (upto 82 kg.): Ismail Abilov (Bul.); **Light Heavyweight** (upto 90 Kg.): Senasar Oganesyan (USSR); **Heavyweight** (upto 100 Kg.): Ilya Mate (USSR); **Super Heavyweight** (100 Kg.): Soslan Andiev (USSR).

Greco-Roman Style:

Light Flyweight (upto 48 kg.): Zaksylik Ushkemparov (USSR); **Flyweight** (upto 52 kg.): Vakhtang Blagidze (USSR); **Bantamweight** (upto 57 kg.): Shamil Serikov (USSR); **Featherweight** (upto 62 kg.): Stilianos Migiakis (Gre.); **Lightweight** (upto 68 kg.): Stefan Rusu (Rom.); **Welterweight** (upto 74 kg.): Ferenc Kocois (Hun.); **Middleweight** (upto 82 kg.): Gennady Korban (USSR); **Light Heavyweight** (upto 90 kg.): Nobort Nottny (Hun.); **Heavyweight** (upto 100 kg.): Ghearghi Raikov (Bul.); **Super Heavyweight** (over 100 kg.): Alexandr Koichimsky (USSR).

WEIGHTLIFTING (1980)

Winner and weight (kg.) respectively:

Flyweight (upto 52 kg.): Kanybekosmonaliev (USSR) 245; **Bantamweight** (upto 56 kg.): Daniel Nunez (Cuba) 275; **Featherweight** (upto 60 kg.): Viktor Mazin (USSR) 290; **Lightweight** (upto 67.5 kg.): Yankov Ronssev (Bul.) 342.5; **Middleweight** (upto 75 kg.): Assen Zlatev (Bul.) 360; **Light Heavyweight** (upto 82.5 kg.); Yurik Vardhanyan (USSR) 400; **Middle Heavyweight** (upto 90 kg.): Peer Baczako (Hun.) 377.5; (upto 90 kg.): Ota Zaremba (Czech.) 395; **Heavyweight** (upto 110 kg.): Leonid Teranonko (USSR) 422.5; **Super Heavyweight** (over 110 kg.): Sultan Rakhmanov (USSR) 440.

HANDBALL (1980)

Winner: Men (GDR); Women (USSR).

BASKETBALL (1980)

Winner: Men; (Yug) Women (USSR).

SHOOTING (1980)

Winner (Country) and points scored respectively.

Rapid Fire Pistol: Jurgen Wiefel (GDR), 299; **Small-bore Rifle:** Viktor Vlasov (USSR), 1,173; **Trap:** Luciano Giovannelli (Italy), 198.2; **Skeet:** Hans Kjeld Rasmussen (Denmark), 196; **Running Boar Target:** Igor Sokolov (USSR), (Normal run: 298; Fast Run: 297), 589.

VOLLEYBALL (1980)

Men's: USSR; Women's: Bulgaria.

BOXING (1980)

Winners: Light Flyweight: (upto 48 kg.): Shamil Sabirov (USSR); **Flyweight** (upto 51 kg.): Petar Lessov (Bul.); **Bantamweight** (upto 54 kg.): Juan Hernandez (Cuba); **Featherweight** (upto 57 kg.): Rudi Fink (G.D.R.); **Lightweight** (upto 60 kg.): Angel Herreara (Cuba); **Liht Welterweight** (upto 63.5 kg.): Patrizio Oliva (Ita.); **Welterweight** (upto 67 kg.): Andres Aldama (Cuba); **Light Middleweight** (upto 71 kg.): Armando Martineg (Cuba); **Middleweight** (upto 75 kg.): Jose Gomez (Cuba); **Light Heavyweight** (upto 81 kg.); Slobodar Kacar (Yug.); **Heavyweight** (over 81 kg.): Teofilio Stevenson (Cuba).

CYCLING (1980)

1,000-metre Sprint: Lutz Hosslich (GDR); **1,000-Metre Time Trial:** Lothar Thoms (GDR) 1:0295; **4,000-Metre Individual Pursuit:** Robert Dill-Bundi (Swit.) 4:35.66; **4,000-Metre Team Pursuit** (USSR) 4:15.7; **Individual Road Race:** Sergei Sukhoruchenkov (USSR) 4h. 48:28.9; **Road Team Trial** (USSR) 2h. 01:27.7; **Individual Road Race:** Sagei Sukhrechenav (USSR).

EQUESTRIAN SPORTS (1980)

Grand Prix (Jumping): Jan Kowalozk (Pol.); **Grand Prix** (Dressage): Elisabeth Thewer (Aus.).

FENCING (1980)

Men

Foil: Vladimir Smimov (USSR); **Epee:** Johan Harmenberg (Swe.); **Sabre:** Viktor Krovopuskov (USSR).

Women

Foil: Pascale Trinquest (Fra.).

ROWING (1980)

Winner and country respectively:

Men

Single Sculls: Pertti Karppinen (Fin.); **Double Sculls:** Joachim Dreifke, Klaus Krepplien (GDR); **Coxless Quadruple Sculls:** Frank Dundr, Karsten Bunk, Uwe Heppner, Martinwinter (GDR); **Coxedless Pairs:** Bernd Landvoigt, Jorg Landvigt (G.D.R.); **Coxed Pairs:** Harald Jahrling, Friedrich Ulrich (GDR); **Coxless Fours:** Siegfried Brietzke, Jurgin Thicle, Andreas Decker, Stefan Semmler (CDR); **Coxed Fours:** Diter Wendisch, Ulrich Diessner, Walter Diessner, Gottifried Dohn (GDR); **Eights:** Bernd Krauss, Hans-Peter Koppe, Ulrich Kons, Jorg Friedrich, Jens Doberschutz, Ulrich Karnets, Uwe Duhrmg, Bernd Hoing (GDR).

Women

Single Sculls: Sanda Toma (Rum.); **Double Sculls:** Yelen Khlopeeva, Lurissa Poppova (USSR); **Coxless Pairs:** Ute Steindorf, Cornelia Klier (GDR); **Coxed Quadruple Sculls:** Jutta Ploch, Jutta Lal, Sybille Reinhardt, Roswitha Zobelt (GDR); **Coxed Fours:** Remona Kapheim, Silvia Frohlich, Angelika Noack, Remy Salfeld, Kirsten (GDR); **Eights:** Martina Boesler, Kersten Neisser, Christiane Kopke, Bright Schultz, Gabrille Kuhn, Ilona Richter, Marita Sandig, Karin Metze.

CANOEING (1980)

Winner and country respectively:

Men

Kayak Singles—500 Metres: Vladimir Parfenovich (USSR) 1:43.42; **Kayak Singles**—1,000 Metres: Rudigor Holm (GDR) 3:48.77; **Kayak Pairs**—500 Metres: (USSR) 1:32.38; **Kayak Pairs**—1,000 Metres (USSR) 3:26.72; **Kayak Fours**—1,000 Metres (GDR); **Canadian Singls**—500 Metres: Sergei Postrekhin (USSR) 1:53.37; **Canadian Singles**—1,000 Metres: Lubomir Lubenov (Bul.) 4:12.38; **Canadian Pairs**—500 Metres: (Hungary) 1:43.3; **Canadian Pairs**—1,000 Metres (Rum.).

Women

Kayak Singles—500 Metres: Birgit Fischer (GDR) 1:57.96; **Kayak Pairs**—500 Metres: (GDR) 1:43.88.

ARCHERY (1980)

Men: Double FITA Round: Tomi Poikolainen (Fin.).

Women: Double FITA Round: Keto Losaberidze (USSR).

OLYMPIC FOOTBALL

Year and winner respectively: 1912 Great Britain; 1920 Belgium; 1924 Uruguay; 1928 Uruguay; 1936 Italy; 1948 Sweden; 1952 Hungary; 1956 Soviet Union; 1960 Yugoslavia; 1964 Hungary; 1968 Hungary; 1972 Poland; 1976 G.D.R.; 1980 Czechoslovakia.

OLYMPIC HOCKEY

Year and winner respectively: 1908 Great Britain; 1920 Great Britain; 1928 India; 1932 India; 1936 India; 1948 India; 1952 India; 1956 India; 1960 Pakistan; 1964 India; 1968 Pakistan; 1972 W. Germany; 1976 New Zealand; 1980 India.

WORLD CUP SOCCER

The Jules Rimett Cup: 1930 Uruguay; 1934 Italy; 1938 Italy; 1950 Uruguay; 1954 W. Germany; 1958 Brazil; 1962 Brazil; 1966 England; 1970 Brazil; 1974 West Germany; 1978 Argentina; 1982 Italy.

NATIONAL FOOTBALL

Santosh Trophy: Year and winner respectively: 1953 Bengal; 1954 Bombay; 1955 Bengal; 1956 Hyderabad; 1957 Hyderabad; 1958 Bengal; 1959 Bengal; 1960 Services; 1961 Railways; 1962 Bengal; 1963 Maharashtra; 1964 Bengal; 1965 (not played); 1966 Andhra Pradesh; 1967 Mysore; 1968 Mysore; 1969 Bengal; 1970 Punjab; 1971 Bengal; 1972 Bengal; 1973 Kerala; 1974 Punjab; 1975 Bengal; 1976 Bengal; 1977 Bengal; 1978 Bengal; 1979 Bengal; 1980 Bengal; 1981 Punjab; 1982 Bengal; 1983 Goa-Bengal (jointly); 1984 Goa.

Rovers Cup: Year and winner respectively: 1953 Hyderabad Police; 1954 Hyderabad Police; 1955 Mohun Bagan; 1956 Mohamedan Sporting; 1957 Hyderabad Police; 1958 Caltex; 1959 Mohamedan Sporting; 1960 Andhra Pradesh Police; 1961 E.M.E., Secunderabad; 1962 East Bengal-Andhra Pradesh Police; 1963 Andhra Pradesh Police; 1964 Bengal Nagpur Railway; 1965 (not held); 1966 Mohun Bagan; 1967 East Bengal; 1968 Mohun Bagan; 1969 East Bengal; 1970 Mohun Bagan; 1972 East Bengal and Mohun Bagan; 1973 East Bengal; 1974 Dempo S.C.; 1975 East Bengal Club; 1976 Mohun Bagan; 1977 Mohun Bagan; 1978 Dempo S.C.; 1979 Dempo S.C.; 1980 East Bengal and Mohamedan Sporting (Jointly); 1981 Mohun Bagan; 1982 Salahuddin Club (Iraq); 1983 Army Club (Iraq).

I.F.A. Shield: Year and winner respectively: 1954 Mohun Baagan; 1955 Rajasthan S.C.; 1956 (not held); 1957 Mohamedan Sporting; 1958 East Bengal; 1959 Abandoned; 1960 Mohun Bagan; 1961 Mohun Bagan; 1962 Mohun Bagan; 1963 Bengal Nagpur Railway; 1964 East Bengal; 1965 (not held); 1966 Mohun Bagan; 1967 East Bengal-Mohun Bagan; 1968 Mohun Bagan-Mohamedan Sporting; 1969 (not held); 1970 East Bengal; 1971-72 (not held); 1973 East Bengal; 1974 East Bengal; 1975 East Bengal Club; 1976 Mohun Bagan & East Bengal; 1977 Mohun Bagan; 1978 Mohun Bagan; 1979 Mohun Bagan; 1981 shared by Mohun Bagan and East Bengal; 1982 Mohun Bagan.

Durand Cup: Year and winner respectively: 1935 Mohun Bagan; 1954 Hyderabad Police; 1955 Madras Regimental Centre; 1956 East Bengal; 1957 (not held); 1958 (not held); 1959 Mohun Bagan; 1960 East Bengal; 1961 Andhra Pradesh Police; 1962 (not held); 1963 Mohun Bagan; 1964 Mohun Bagan; 1965 (not held); 1966 Gorkha Brigade; 1967 East Bengal; 1968 Border Security Force; 1969 Gorkha Brigade; 1970 East Bengal; 1971 (not played); 1972 East Bengal; 1973 Border Security Force; 1974 Mohun Bagan; 1975 J.C.T. Mills (Phugwara); 1976 J.C.T. Mills (Phugwara) & B.S.F. (Jullundur); 1977 Mohun Bagan; 1978 East Bengal; 1979 Mohun Bagan; 1980 Mohun Bagan; 1981 B.S.F.

TENNIS

Davis Cup: Year and winner respectively: 1900 U.S.; 1902 U.S.; 1903 British Isles.; 1904 British Isles.; 1905 British Isles.; 1906 British Isles.; 1907 to 1909 Australia; 1911 Australia; 1912 British Isles.; 1913 U.S.; 1914 Australia; 1919 Australia; 1920 to 1926 U.S.; 1927 to 1932 France; 1933 to 1936 G.B., 1937-38 U.S.; 1939 Australia; 1946 to 1949 U.S.; 1950 to 1953 Australia; 1954 U.S.; 1955-1957 Australia; 1958 U.S.; 1959 to 1962 Australia; 196 U.S.; 1964 to 1967 Australia; 1968 to 1972 U.S.; 1973 australia; 1974 South Africa (by default); 1975 Czechoslovakia; 1976 Sweden; 1977 Australia; 1978 United States; 1979 United States; 1980 United States; 1981 United States.

OLYMPIC HOCKEY

Year and winner respectively: 1908 Great Britain; 1920 Great Britain; 1928 India; 1932 India; 1936 India; 1948 India 1952 India; 1956 India; 1960 Pakistan; 1964 India; 1968 Pakistan; 1&72 W. Germany; 1976 New Zealand; 1980 India.

NATIONAL HOCKEY

Rangaswamy Cup: Year and winner respectively—1953 Services; 1954 Madras-Services; 1955 Services; 1956 Railways; 1957 Railways; 1958 Railways; 1959 Services; 1960 Services, 1961 Railways, 1962 Railways; 1963 Railways; 1964 Punjab; 1965 (not held); 1966 Railways-Madras; 1967 Railways; 1968 Punjab; 1969 Punjab-Railways; 1970 Punjab; 1971 Punjab; 1972 Punjab; 1973 Services; 1974 Railways; 1975 Railways; 1976 Railways; 1977 Railways and Indian Airlines (Jointly); 1978 Indian Airlines; 1979 Railways; 1981 Punjab; 1982 Bombay-Punjab (Jointly).

Aga Khan Cup: Year and winner respectively; 1953 Lusitanian S.C.; 1954 Punjab; 1955 Bombay City Police; 1956 (not held); 1957 Burmah-Shell; 1958 Northern Railway; 1959 Punjab Police; 1960 I.H.F. President's XI; 1961 Maratha L.I.; 1962 North Eastern Railway; 1963 Mohun Bagan; 1964 Punjab Police; 1965 (not held); 1966 Punjab Police; 1967 Western Railway; 1968 Punjab Police; 1969 (not played); 1970 (not played); 1971 Indian Airlines; 1972-74 (not played); 1975 Northern Railway; 1976 Eastern Railway; 1977 Tournament Abandoned; 1978 (not held); 1980 Northern Railway; 1981 not played; 1982 Mahindra and Mahindra; 1983 Pakistan International Airlines.

Beighton Cup: Year and winner respectively: 1953 Tata S.C.; 1954 Western Railway-Uttar Pradesh; 1955 Services; 1956 East Bengal; 1957 Mohun Began; 1958 Corps of Signals; 1959 Mohun Bagan; 1960 Central Railway; 1961 Central Railway; 1962 Central Railway; 1963 Mohun Bagan; 1964 Mohun Bagan-Customs A.C. (Jt. holders); 1965 (not held); 1966 East Bengal; 1967 Mohun Bagan; 1968 (not held); 1969 Western Railway; 1970 Western Railway; 1971 Mohun Bagan and B.S.F. (Jt. holders); 1972 (not held); 1973 Mohun Bagan and Indian Hockey Federation Dark Blues (Jt. holders); 1974 Mohun Bagan; 1975 Mohun Bagan; 1976 Army Supply Corps (Jullundur); 1977 Mohun Bagan; 1978 Mohun Bagan; 1979 Mohun Bagan; 1980 Western Railway; 1981 E.M.E.; 1982 E.M.E.

CRICKET

TEST MATCHES:

England: 1932 (In England) India lost the only match played by 158 Runs; 1933-34 (in India) India lost 2 and drew 1; 1936 (in England) India lost 2 and drew 1; 1946 (in Engalnd) India lost 1 and drew 2; 1951-52 (in India) India won 1, lost 1 and drew 3; 1952 (in England) India lost 3 and drew 1; 1959 (in England) India lost 5; 1962 (in India) India won 2 and drew 3; 1964 (in India) All 5 Tests drawn; 1967 (in England) India lost all 3 tests; No matches were held during 1968 to 1970; 1971 (in England) India won one and drew two; 1972 (in India) India won two, lost one, and drew two; 1974 (in England) India lost all 3 tests; 1976-77 (in India) India won 1, lost 3 and drew 1; 1979 (in England) India lost 1 and drew 3; 1980 (in India) India lost the Golden Jubilee Test; 1981-82 (in India) India won 1 and drew 5; (in England) India lost 1 and drew 2.

Australia: 1947 (in Australia) India lost 4 and drew 1; 1956 (in India) India lost 2 and drew 1; 1959-60 (in India) India won 1, lost 2 and drew 2; 1964 (in India) India won 1, lost 1 and drew 1; 1967-68 (in Australia) India lost all 4; 1969-70 (in India) India won 1, lost 3 and drew 1; 1977-78 (in Australia) India won 2, lost 3; 1979 (in India) India won 2, drew 4; 1980-81 (in Australia) India lost 1, won 1 and drew 1.

West Indies: 1948 (in India) India lost 1 and drew 4; 1953 (in West Indies) India lost 1 and drew 4; 1958 (in India) India lost 2 and drew 3; 1962 (in West Indies) India lost all 5; 1966-67 (in India) India lost 2 and drew 1; 1971 (in West Indies) played 5 test matches (India won 1, drew 4) India got rubber; 1974-75 (in India) played 5 tests (India won 2 and lost 3); 1976 (in West Indies) India lost two, won one and drew one; 1978-79 (in India) played 6. (India won one and drew 5); 1983 (In West Indies) India lost 2, drew 3.

Pakistan: 1952 (In India) India won 2, lost 1 and drew 3; 1954 (in Pakistan) all 5 Tests drawn; 1960-61 (in India) all 5 Tests drawn; 1978 (in Pakistan) India lost 2 and drew 1; 1979-80 (in India) India won 2 and drew 4; 1982-83 (in Pakistan) India lost 3, drew 3.

New Zealand: 1955-56 (in India) India won 2 and drew 3; 1965 (in India) India won 1 and drew 3; 1968 (in New Zealand) India won 3 and lost 1; 1969 (in India) India won 1, lost 1 and drew 2; 1970 (in India) India won 1, lost 1 and drew 1; 1976 (in New Zealand) India won 1, lost 1 and drew 1; 1981 (in New Zealand) India lost 1 and drew 2.

PRUDENTIAL WORLD CUP

1975	West Indies,
1979	West Indies,
1983	India

BILLIARDS

1977—World Amateur Champion: Michael Ferreira (India); 1979—Paul Misfield (Malta); 1981—Michael Ferreira (India); 1982—Michael Ferreira (India); 1983—Michael Ferreira (India).

RANJI TROPHY

Championship 1934-1982

Year	Winner	Runner-up
1934	Bombay	Northern India
1935-36	Bombay	Madras
1936-37	Nawanagar	Bengal
1937-38	Hyderabad	Nawanagar
1938-39	Bengal	Southern Punjab
1939-40	Maharashtra	United Provinces
1940-41	Maharashtra	Madras
1941-42	Bombay	Mysore
1942-43	Baroda	Hyderabad
1943-44	Western India	Bengal
1944-45	Bombay	Holkar
1945-46	Holkar	Baroda
1946-47	Baroda	Holkar
1947-48	Holkar	Bombay
1948-49	Bombay	Baroda
1949-50	Baroda	Holkar
1950-51	Holkar	Gujarat
1951-52	Bombay	Holkar
1952-53	Holkar	Bengal
1953-54	Bombay	Holkar
1954-55	Madras	Holkar
1955-56	Bombay	Bengal
1956-57	Bombay	Services
1957-58	Baroda	Services
1958-59	Bombay	Bengal
1959-60	Bombay	Mysore
1960-61	Bombay	Rajasthan
1961-62	Bombay	Rajasthan
1962-63	Bombay	Rajasthan
1963-64	Bombay	Rajasthan
1964-65	Bombay	Hyderabad
1965-66	Bombay	Rajasthan
1966-67	Bombay	Rajasthan
1967-68	Bombay	Madras
1968-69	Bombay	Bengal
1969-70	Bombay	Rajasthan
1970-71	Bombay	Maharashtra
1971-72	Bombay	Bengal
1972-73	Bombay	Tamil Nadu
1973-74	Karnataka	Rajasthan
1974-75	Bombay	Karnataka
1975-76	Bombay	Bihar
1976-77	Bombay	Delhi
1977-78	Karnataka	U.P.
1978-79	Delhi	Karnataka
1979-80	Delhi	Bombay
1980-81	Bombay	Delhi
1981-82	Delhi	Karnataka
1982-83	Karnataka	Bombay

DULEEP TROPHY

Year	Winner	Runner-up
1961-62	West Zone	South Zone
1962-63	West Zone	South Zone
1963-64	West Zone South Zone	
1964-65	West Zone	Central Zone
1965-66	South Zone	Central Zone
1966-67	South Zone	West Zone
1967-68	South Zone	West Zone
1968-69	West Zone	South Zone
1969-70	West Zone	North Zone
1970-71	South Zone	East Zone
1971-72	Central Zone	West Zone
1972-73	West Zone	Central Zone
1973-74	North Zone	Central Zone
1974-75	South Zone	West Zone
1975-76	South Zone	North Zone
1976-77	West Zone	North Zone
1977-78	West Zone	North Zone
1978-79	North Zone	West Zone
1979-80	North Zone	West Zone
1980-81	Not played*	
1981-82	North Zone	West Zone
1982-83	North Zone	West Zone

*As on March 2, 1981.

HIMALAYAN CAR RALLY (1982)

Winners: First Prize—**Air-India Trophy** and a cash award of Rs. 30,000—Jayant Shah (a Kenyan businessman) and his driving partner Aslam Khan; Second Prize—**Modi Rubber Trophy** and a cash award of Rs. 15,000—Rudolf Stohl (Austrian); Third Prize—A trophy and a cash prize of Rs. 10,000—Ramesh Khoda (Kenyan businessman).

See Chapter on State Associations for State-wise list of Sports Associations.

MOUNTAINEERING

THREE flags of three nations, Indian, British and New Zealand, fluttered proudly on the summit of Mt. Everest on May 29, 1953, announcing to the world that the highest peak had been, at last, conquered. For three mountaineers, Edmund Hillary, Tensing Norgay, the sherpa, and the leader of the expedition, Col. John Hunt, it was indeed a deed of great achievement which evoked admiration and applause the world over.

This great event prompted the Government of India to set up the Indian Mountaineering Foundation in Delhi and the Himalayan Mountaineering Institute at Darjeeling. Interestingly, August 27, 1983, marked the silver jubilee of the Indian Mountaineering Foundation, a milestone in the rapid strides of mountaineering in India. An offshoot of this is the establishment of several mountaineering institutes in India.

Historically, mountaineering, which has been described as the practice of climbing to elevated points for sports, pleasure or research, took the first leap forward in a significant achievement in the ascents of Mount Blanc in 1786 by Jacques Balmat and Michel G. Paccard and in 1787 by Horace B. de Saussure.

Mountaineering as a sport, however, started with the ascent of Wetterhorn (in Colorado) in 1854. But this feat was surpassed in popularity by the success of Edmund Whymper on the Matterhorn in 1865. The sport rapidly attracted admirers and the Alpine Club of London was set up in 1858 and published its own magazine, "Alpine Journal", in 1867.

Two other notable feats in mountaineering were the conquest in 1961 of the South face of Mt. McKinley in Alaska and Chincy (1961) of Northwall of Eiger in the Alps.

The towering giants for mountaineers are: Mt. Everest, Mt. Godwin-Austen and Mt. Kanchenjunga, all conquered in the 1950s.

The fascinating Himalayas have always posed an irresistible challenge to man inviting him to unravel its mysteries by scaling the virgin peaks. The earliest survey of the contours of the Himalayas is recorded in a book entitled "Kedarkhand" written by Veda Vyas, the mythological surveyor. Most of the peaks derive their names also from this exploratory document.

Though by 1850 most of the lesser known peaks and their heights were established trigonometrically, the world's highest peak was fixed only in 1852 by a team of surveyors who named it Mt. Everest, after Sir George Everest, the Surveyor-General of India. It was a feat in an era when very little was known about air pressure, lack of oxygen and living conditions on such heights. The first organised mountaineering was in 1852 when W. H. Graham climbed the 24,000ft. Kabru peak, near Kanchenjunga.

Modern mountaineering in India can be said to have started from 1918, when two Englishmen climbed the 19,000ft. peak near Leo Pargyal in Simla. Gradually local sherpas were inducted into expeditions and air reconnaissance was also introduced in 1933 whereby the first aerial view of Mt. Everest was established.

With the conquest of Mt. Everest on May 29, 1953 by Sir Edmund Hillary and Tensing Norgay a new era opened up and mountaineering as a sport came to be widely and internationally recognised.

The three most historic events in mountaineering history are the assault on Annapurna by Mauric Herzog of France in 1950, the conquest of Mt. Everest by Edmund Hillary and Tensing Norgay in 1953 and the Japanese all-women expedition to Mt. Everest in 1975 under the leadership of Mrs. Junko Tabei.

The first all-Indian expedition was launched on Mt. Everest in the summer of 1960 under Brig. Gyan Singh which unfortunately missed the peak. In 1962 a second party under Maj. John Dias was

SUCCESSFUL EXPEDITIONS TO MT. EVEREST

Year	Sponsored Country	Group Leaders
May 1953	Great Britain	Edmund Hillary and Tensing Norgay (1)
May 1963	United States of America	Norman G. Dyhrenfurth
May 1963	United States of America	W.F. Unsoeld and T.F. Hornbein
May 1965	India	M.S. Kohli
May 1970	Japan	Torno Matsunra and Naomi Uermera
May 1973	Italy	Guido Monzino
May 1975	Japan (All women)	Mrs. Junko Tabei (2)
May 1975	China with Tibet	Miss Panthong (3)
Sept 1975	Great Britain	Chris Bonington (4)
Sept 1976	Great Britain (Canoeing)	Mike Jones
Oct. 1976	United States of America (Bicentennial Everest)	Phil Trimble
Sept. 1977	Korea	Ko Sang Don
May 1978	United States of America	Reinhold Messner and Peter Hebeller (5)
May 1978	Germany with Austria	Reinhard Karl (6)
Oct. 1978	France with Germany	Pierre Mazeand
Mar. 1979	Yugoslavia	Tone Sakarja
May 1979	Yugoslavia	Jernez Zaplotnik
Oct. 1979	W Germany	Dr. Gerhard Schmatz
Feb. 1980	Poland	Andrea Zawada
May 1980	Poland	N.A.
Oct. 1981	United States of America (Medical)	Dr. John West
May 1982	United Soviet Socialist Republic (By mountaineering team)	Dr. Evgeny Tamm
Oct. 1982	Canada	Laurie Skreslet
May 1983	United States of America	Larry Nielson (7)

(1) Under the leadership of John Hunt. (2) First woman to reach summit. (3) Second woman to reach summit. (4) Reached summit through South West face. (5) Climbed without oxygen. (6) First German to reach summit. (7) Climbed without oxygen.

EXPEDITIONS BY WOMEN

Year	Sponsored by	Group Leader	Peak
June 1964	Four Women Indian Expedition of Manali Mountaineering Instt.	Miss Snehalata Pilke	Mt. Deo Tibba
Oct. 1964	Expedition by Girl Guides	Miss Joyce Dunsheath	Mrigthuni
April 1966	All-women Himalayan Expedition	Miss Pushpa Athavle	Mt. Koktang
June 1966	Gujarat University Girls' Expedition	Miss Nandini Patel	Gangotri I
June 1967	Pune Girls' Expedition	Dr. G.R. Patwardhan	Jogin III
Oct. 1967	All-women Expedition	Miss Deepali Sinha	Ronti
May 1968	Indo-Japanese Women Expedition sponsored by Indian Mountaineering Foundation	Nandini Patel	Mt. Kailash
June 1969	Gujarat Girls' Expedition	Miss Dolly Sahar	Hanuman Tibba
June 1970	Bombay All-women Expedition	Miss Meena Agrawal	Trisul
Oct. 1970	All-women Delhi Mountaineering Association	Miss M.C. Usha	Hanuman Tibba
June 1974	Maharashtra Trekkers and Cultural Society Women Expedition	Miss Lalita Patil	Hanuman Tibba
May 1975	Japanese All-women	Mrs. Junko Tabei	Mt. Everest
May 1975	Chinese-Tibetan	Miss Panthong	Mt. Everest
June 1975	Two-women Expedition sponsored by Delhi Mountaineering Association	Miss Usha Chari	Mukerbeh
June 1975	Youth Hostel Association of India	Miss Nalini V. Dave	Ranikoot
Oct. 1975	Calcutta All-women Mountaineering Team	Miss Chandraprabha	Kedarnath Dome
Oct. 1975	Maharashtra Mountaineering and Trekking Club	Miss Lalita Patil	Deo Tibba
June 1976	Indo-Japanese Girls'	Dr. Meera Agrawal	Abi Gamin
Oct. 1978	Western Himalayan Women	Raman Sen Gupta	White Sail
Oct. 1978	American Women's Expedition	Irene Miller	Annapurna
June 1981	Maharashtra N.C.C. Girl Cadets	N.A.	Friendship
Sept. 1981	Six men and six women	Col. B.S. Sandhu	Nanda Devi
May 1982	Korean Expedition	Miss Hyoung Heekay	Mt. Lamjung Himal
May 1983	Japanese Women Mountaineering Expedition	Fumie Shimamura	Mt. Takuche

sent. That also was a failure. In 1965 an Indian expedition led by Com. M. S. Kohli succeeded in reaching the summit with nine members.

English and German poets have waxed eloquent over the glory of the Alps and John Ruskin and Joseph Turner gave them prominence as subjects for painters. There has been a rich and extensive literature on mountaineering, partly because the sport has attracted persons of cultured accomplishments.

MOUNTAINEERING BY WOMEN

The all-women expedition led by Madame Claude Kogan of France to conquer Cho Oyu peak in the Himalayas in 1959 is considered to be the starting point of mountaineering by women. In India, the Himalayan Mountaineering Institute of Darjeeling was the pioneer in starting an all-women mountaineering course. It was in 1961 that a team of 24 girls was selected for this course by Brig. Gyan Singh who was then the principal of the institute. Later, other institutes also started a similar course.

The systematic training given by the institutes and the encouragement by various state governments namely, Gujarat, Maharashtra, Uttar Pradesh, Rajasthan, Himachal Pradesh, West Bengal, etc. resulted in giving a moral boost to the mountaineering adventure among youth and consequently women came to the forefront. The various peaks scaled by women mountaineers from 1964 onwards testify to the adventurous spirit among women.

At present plans are afoot by the Indian Mountaineering Foundation, Delhi, and the Himalayan Mountaineering Institute, Darjeeling, to organise an all-women expedition to conquer Mt. Everest.

TRAINING INSTITUTES

There are six major institutes in India. They are: (1) Indian Mountaineering Foundation, Delhi; (2) Himalayan Mountaineering Institute, Darjeeling; (3) Nehru Institute of Mountaineering, Uttarkashi, Uttar Pradesh; (4) Madhya Pradesh Mountaineering Institute; (5) Western Himalayan Mountaineering Institute, Manali, Kulu; and (6) Manali Institute of Mountaineering, Gangtok.

COMMUNICATIONS

THE telephonic conversation which the Prime Minister of India Mrs. Indira Gandhi, had with the British Prime Minister, Mrs. Margaret Thatcher, on May 3, 1983, was a milestone which marked 50 years of India's telephonic link with Great Britain. It was on that day 50 years ago that the then Secretary of State of India, Sir Samuel Hoare, had made the call from London to Sir Frederick Sykes, Governor of Bombay.

Growth of Postal System: The first postal system was introduced by Lord Clive in 1766, which was meant for official purposes only. In 1837, it was opened to the public and the first postal stamps were issued in Sind in 1852. In 1854, the East India Company set up the postal service as a separate entity under a Director-General and issued postal stamps to be used on an all-India basis. The postal system in India became operative by Act VI of 1858 and by another act in 1898 the Posts and Telegraphs system received statutory recognition.

At the time of independence there were only 22,116 post offices in the country but with the extension of postal facilities to all the villages there has been a phenomenal growth. On July 1, 1968, the 100,000th post office was opened in Sahabad district of Bihar. At present there are 140,435 post offices, out of which 125.743 are in the rural areas and 14,692 in the urban areas.

In 1853 the first long-distance overhead telegraph was introduced between Calcutta and Agra and later the line was extended to Bombay and Peshawar. Telegraph circuits were gradually extended to all parts of India by 1867. The centenary of the telegraph system was celebrated in November, 1953. At present there are 34,096 telegraph offices.

The Telephone service in India was started in 1881 when a 50-line telephone exchange was installed in Calcutta and the first automatic telephone exchange was installed at Simla in 1913. At the time of independence there were only 321 exchanges and 86,000 telephones in the country. At present there are 2,149,470 exchanges and 2,468,874 telephones.

POSTS AND TELEGRAPHS

Administration: The Indian Posts and Telegraphs Department, the second largest civil employer in the country, comes under the administrative control of the Ministry of Communications. The Secretary of the Department holds charge of the office of the Director General, Posts and Telegraphs as also that of the Chairman of the Posts and Telegraphs Board. The country is divided into 15 telecommunication circles, 16 postal circles, 17 Posts and Telegraphs Civil circles, 5 Posts and Telegraphs electrical circles and 30 telephone districts.

Staff: The total staff strength on March 31, 1981 was 852 million including .284 milion extra departmental employees and 7,084 industrial workers. 33 officers and 3,293 other ranks (including 139 under training were on deputation to the Army Postal Service.

No. of Post Offices: At the end of 1981, the total number of Post Offices in the country was 140,435 out of which 125,743 were in the rural areas and 14,692 in urban areas. Against a target of 1,600 post offices to be opened during 1981-82, the actual number of post offices opened up to end of 1981 was 1,054 (including 247 in tribal areas), including 157 post offices opened in the urban areas.

During the Sixth Five-Year Plan, it is proposed to open 8,000 post offices. Out of these 63 per cent are to be opened in the backward, hilly and tribal areas.

Rural Mobile Post Offices: The cycle post office was opened in Shirgaon, near Ratnagiri, in 1974. Against the target of 2,000 villages to be covered by Mobile Post Offices in the rural areas, 1,187 have been covered till December 31, 1981. This includes 276 villages in the tribal areas. The facility had to be withdrawn from a number of villages as it was not being utilised fully. The total number of villages receiving this facility through mobile post offices was 82,800 as on December 31, 1981.

Postal Traffic: In 1981-82 about 9,730 million pieces of mail were handled of which 243.3 million were registered articles, about 2.5 per cent of the total mail. 111.8 million inland money orders totally valued at Rs. 12,510 million were issued, earning the department Rs. 300 million as commission. 11.1 million value payable articles were dealt with. 723,415 parcels were despatched to foreign countries and 714,586 parcels were received from abroad.

Letter Boxes: At the end of 1981, the total number of letter boxes in the country was 495,853 out of which 421,604 were in the rural areas.

Mail Conveyance: The mail is carried both by surface and air. Various modes of conveyance such as rail, road, transport runners etc. are used for surface mail. Within the country all principal cities are connected by air, and other cities are connected by the surface link.

All inland letters, letter cards, postcards, registered letters and money orders are normally carried by air without surcharge. During 1980-81 a total weight of 2.927 million kg was carried from India for abroad and domestic mail within the country was 12.15 million kg.

Commemorative Special Stamps (1981), Occasion & date respectively: 51st death anniversary of Mazharul Haque, a great journalist, poet and writer, Jan 2; First centenary of St. Stephens College, Delhi, Feb. 1; 1,000th anniversary of the installation of the statue of Gommateshwara, Feb. 9; 25th death anniversary of G. V. Mavalankar, first Lok Sabha Speaker, Feb. 27; 50th anniversary of the martyrdom of Bhagat Singh, Raj Guru, Sukhdev, Chandrashekhar Azad and others 'Homage to Martyrs', Mar. 23; 84th death anniversary of Heinrich Von Stephan, founder of Universal Postal Union, Apr. 8; International Year of Disabled Persons, Apr. 20; Tribes of India Series, 4 stamps, May 30; Highlighting the need of Conservation of Forests, Environmental Conservations, June 15; 101st birth anniversary of Nilmoni Phukan a poet and freedom fighter from Assam, June 22; First death anniversary of Sanjay Gandhi a young leader, June 23; Anniversary of Launching of Rohini Satellite by Indian Satellite Launching Vehicle (SLV-3), July 18; First set of 2 stamps of IX Asian Games, 1982, July 28; Series of Flowering Trees, 4 stamps, Sep. 1; World Food Day, Oct. 16; Butterflies, 4 stamps, Oct. 20; Renowned actor and great dramatist, Bellary Raghava, Oct. 31; Presentation of colours and reunion of Mahar Regiment, Nov. 9; Children's Day, Nov. 14; Second issue (third stamp) on IX Asian Games, 1982, Nov. 19; Death centenary of great historian of India Kashi Prasad Jayaswal, Nov. 27; International Day of Solidarity with the Palestinian People, Nov. 29; To commemorate Navy Day, Dec. 4; In honour of Henry Heras, an Indologist and founder of Bombay Historical Society, Dec. 14; To commemorate the inauguration of the IOCOM Submarine Telephone Cable, Madras, Dec. 24; Fifth World Cup Hockey, Bombay, Dec. 29; Third issue (fourth stamp) on IX Asian Games, 1982, Dec. 30.

Overseas Communications Service:

India's external telecommunication service is operated by the Overseas Communications Service (OCS) with its headquarters at Bombay, which is a department of the Ministry of Communications, Government of India.

OCS operates in four international gateway centres located at Bombay, New Delhi, Calcutta and Madras, and provides Overseas telephone, telex, telegraph radiophoto leased teleprinter, voice grade and high speed data services. International TV relays and broadcast transmission and reception facilities for news agencies and government are also provided.

Almost 99% of India's external telecommunications are handled by OCS via INTELSAT Satellite in the IOR, through its two satellite earth-stations at Arvi near Poona (established in 1971) and Dehradun (established in 1976). A modern wideband submarine telephone cable system has also been established between Madras and Penang in Malaysia, providing diversity routine facilities. Electronic stored programme control gateway telephone and telex exchanges at the OCS gateway centres facilitate the most modern means of handling telephone and telex calls. Fully Automatic Subscriber Dialled International Telex service is available to more than 75 countries. International Subscriber Dialled (ISD) telephone service which is presently available to UK from the metropolitan cities of Bombay, New Delhi, Calcutta and Madras is being extended to more countries.

Private Leased Circuits: As on 1.1.1982, OCS has leased 14 voice-grade circuits for telephone and data services and 124 teleprinter circuits.

Program Transmissions (Voice-casts): Facilities are provided on the overseas telephone system for the transmission and reception of "voice-casts" by correspondents of foreign broadcasting organisations for relay on their broadcast networks.

Press Broadcasts: OCS provides multi-address teleprinter news broadcast transmissions on behalf of the Ministry of External Affairs, simultaneously to about 66 Indian consular posts around the world. OCS also provides reception of foreign radio teleprinter press broadcasts on behalf of news agencies. Press Bulletin Services at concessional tariff are also provided to news agencies. 20 such Press Bulletin circuits are in service as on January 1, 1982.

Sixth Plan Outlay and Expenditure: Against an outlay of Rs. 850 million the actual expenditure during the first (1980-82) and second (1981-83) years of the Sixth Plan were Rs. 264.5 million and Rs. 176.2 million respectively. The anticipated expenditure for 1982-83 is Rs. 90 million.

During 1982-83 Overseas Communication Services registered considerable growth in its gross revenue and net profit, figures rising from Rs. 743 million and Rs. 460 million in 1981-82 to Rs. 850 million and Rs. 568.9 million in 1982-83.

QMS" (Quick Mail Service) was introduced in India on August 1, interconnecting the headquarters of the State/Union Territor- As on December 31, 1979 QMS was available in 45 national and regional centres. On an average more than 450,000 articles are d per day by QMS.

Savings Bank: Over 139,000 post offices offer savings bank About 45 million account-holders have savings in the offices. The post office savings bank runs all savings schemes. progress of post office savings bank business since 1978 is given

	Savings Bank		Cumulative Time Deposits		Savings Certificate
ch 31	No. of depositors (in million)	Balance (Rs. million)	No. of depositors (in million)	Balance (Rs. million)	Balance (Rs. million)
	25.0	15,210	3.1	2,080	9,190
	26.8	16,950	3.0	2,370	11,250
	30.6	18,770	3.2	2,840	13,570
	33.3	1,990	4.2	3,390	15,620

2-83 the net small savings collection in the country was 16,500 million. The collection made by Maharashtra and ngal during 1982-83 were Rs. 3;110 million and 2,460 pectively.

Postal Life Insurance: 120,170 new policies for an assured total sum 21.5 million were issued during 1980-81 as against 108,975 for Rs. 830.9 million secured in 1979-80.

Telegraph Offices: There were 34,096 telegraph offices as on March During 1980-81, 2,459 telegraph offices were opened in . During the Sixth Plan period, it is proposed to open more telegraph offices.

ring 1980-81, 71.4 million inland telegrams were booked. 12.15 million phonograms, 6.7 million greeting telegrams, 694 outgoing and 693 incoming foreign phototele- handled during the year. 2.47 million phonograms were ered over the phones during 1980-81.

nagari Telegraph Service: The number of telegraph offices this service rose from 10,748 in 1978-79 to 11,200 in

ice is available in 62 telegraph offices in the country. n telegrams were booked and 1.73 million were delivered

The switching capacity in the country reached lines with the addition of 133,029 lines during the year. also a net addition of 133,404 direct exchange lines e total of direct exchange lines up to 2,149,470,441'. New exchanges were installed so that by March 1981 end epartmental exchanges were operating in the country. The r of connections provided in the Sixth Plan up to February 1, re as follows: Andhra Pradesh: 36,489; Bihar: 4,645; Delhi: arat: 34,764; Haryana, Punjab, Himachal Pradesh and h: 29,047; Jammu & Kashmir: 2,745; Karnataka: 30,639; 17,629; Madhya Pradesh: 8,219; Maharashtra: 86,901; tern States: 3,832; Orissa: 3,785; Rajasthan: 16,311; Nadu: 26,088; West Bengal: 20,361.

Telephone Service: Direct telephone service is avail- ith 44 countries of which 40 countries are connected through circuits. Switched telephone service is now available to all the countries of the world. The year 1983 marks the tion of 50 years of telephonic link between India and Great

Phone Exchange: A trailer-mounted mobile telephone ex- e (first of its kind in the country) designed and manufactured dian Telephone Industries, Bangalore was commissioned on y 19, 1977. The exchange with a 1,000 line capacity, costing Rs. 200,000 will provide telephone services in any area. It has all the facilities of a regular exchange.

Subscriber Trunk Dialling: First STD route was introduced between Delhi and Jaipur on September 8, 1964 At present out of 373 Dist Headquarters outside the State Capitals, 355 are linked with State Capitals. The number of routes having STD facility from State Capitals to Dist. Headquarters has increased from 79 to 88 during 1980-81. The routes having STD facility from Dist. Headquarters to State Capitals have gone up from 79 to 88. Additional routes with 'No Delay Service' were introduced between State Capitals and Dist. Headquarters and as on 31.3.1981 there were 256 routes with 'No Delay Service' between State Capitals and Dist. Headquarters and 264 in the reverse direction.

The first electronic trunk automatic exchange (TAX) was inaugurated in Bombay on April 30, 1983 for quicker maturity of STD calls beginning with "O"

International Telex Service: Fully automatic subscriber dialled international telex service is available in respect of 49 countries and switched telex service to almost all countries of the world. During the year direct telex service was extended to Thailand, Malaysia, Kenya, Spain and Egypt on fully automatic basis through electronic type Gateway Telex Exchange, Bombay. Switched telex service was extended to New Caledonia.

BROADCASTING

Organised broadcasting was started in India in 1927 by a private Indian Broadcasting Company from Bombay and Calcutta. This lasted till 1930. The Government of India decided to run radio stations in 1932. In 1936, broadcasting was constituted into a separate department. All India Radio replaced the earlier Indian State Broadcasting Service on June 3, 1936. The real break in broadcasting came with World War II. Most of the news services and external services originated during the war years.

Akashvani: All India Radio operates this service over a network of broadcasting stations located throughout the country. It caters to the complex needs of all communities in the country.

Broadcasting constitutes the most powerful medium of mass communication covering 89 per cent of our population. At the end of 1981 there were 85 broadcasting stations.

An outlay of Rs. 1,223.8 million has been fixed during the Sixth Plan for development projects.

Commercial Broadcasting: Commercial services were started in November, 1967. The earnings of commercial Broadcasting service of Akashvani up to January 31, 1982-83 was Rs. 135.9 million.

Broadcast Receiver Licences: The number of Broadcast Receiver Licences and TV licences in force as on 30.9.1979 for the three quarters of the calendar year 1979 was 16,467,890 and 887,384 respectively. It was expected that the number of Broadcast Receiver Licences and TV licences may go up to 21,200,000 and 1,000,000 respectively by the end of December 31, 1979. During the calendar year 1978 the number of unlicensed sets detected was 304,773 Radios and TVs together and Rs. 3,855,230 as licence fee and Rs. 3,401,409 as surcharge were collected.

TELEVISION

Television at Delhi started as an experimental service in 1959 and since then it has grown rapidly. In 1961, an educational TV service was also started in Delhi with the help of the Ford Foundation and in collaboration with the educational authorities of Delhi. A regular daily service was started from Delhi in 1965. The duration of the general television progrramme in the evening transmission has been increased to three hours from July 1970. The Bombay television station started on 2nd October 1972. It started with a programme time limited to 2 hours and 15 minutes daily, which has been increased to 3 hours on week days and 3½ hours on Saturdays and Sundays. Commercial TV started in India on 1st January, 1976

At present Television has 7 full-fledged centres at Srinagar, Bombay, Madras, Calcutta, Lucknow, Delhi and Jullundur-Amritsar; 3 Programme Production Centres at Delhi, Cuttack and Hyderabad; 7 SITE on-going transmitters at Hyderabad, Muzaffarpur, Sambalpur, Raipur, Jaipur, Gulbarga and Ahmedabad; and 3 Relay centres at Mussoorie, Kanpur and Pune. The most recent station in the network was commissioned at Jullundur on April 13, 1979.

At present TV network covers an area of 0.2 million sq. km. (6.1 per cent of the total) with a population of 83.21 million out of which 48.16 million is rural and 35.05 million is urban.

During 1982-83 television service has been extended to 53,883 villages covering a rural population of 68.3 million.

An outlay of Rs. 869.5 million has been allotted for expansion plans during 1980-85.

The Sixth Plan of TV service envisages setting up of four new TV centres at Ahmedabad, Bangalore, Trivandrum and Gauhati and providing for production facilities at Raipur, Gulbarga, Jaipur and Muzaffarpur. Eight additional centres are also proposed to be set up.

Commercial T.V.: Commercial service was started in India from January 1, 1976. Ten per cent of the total transmission time is available for commercials every day. The revenue from commercials from 1978-79 to 1981-82 (in Rs. million) is 1978-79: 49.7; 1979-80: 61.6; 1980-81: 80.9; 1981-82: 115.

CIVIL AVIATION

J. R. D. TATA'S historic flight from Bombay to Karachi and return to Juhu airport. Bombay, in a twin-seater single-engine Leopold Moth on October 15, 1982, commemorating the same solo flight he had made exactly 50 years ago, also marks the golden jubilee of civil aviation in India.

In the thirties, Juhu airport was nothing more than a cluster of mud huts in swampy land and often submerged in floods during the monsoon. It was the rustic bullock-carts that supplied aviation fuel for three or four small aircraft that was all that comprised the airline fleet.

In marked contrast is the present sophisticated fleet of Boeing planes that converge day and night on the tarmac from all parts of the world and make Sahar a buzzing and bustling international airport.

It was J.R.D.'s vision and dynamism that enabled Air-India Boeings to take to the skies and achieve remarkable success as one of the foremost international airlines of the world. It is indeed the pride of India. Over the years the "father of civil aviation", as J.R.D. has been rightly called, nursed Air-India International and established air links with America, Europe and Asia.

Growth: In point of fact, 1911 marks the beginning of civil aviation in India for it was in that year demonstration flights were made for the first time. The flight by a Frenchman, M. Picquet, carrying mail from Allahabad to Naini was believed to be the first air mail service in the world.

But organised air transport began in India only in 1920 and the Civil Aviation Department was set up in 1927. In 1929, Imperial Airways opened a weekly service between U.K. and India. In 1932 Indian National Airways Ltd. and Tata Airways Ltd. opened two services one from Karachi to Madras and the other from Karachi to Lahore.

The Empire Air Mail Scheme was introduced in 1937. The commencement of World War in 1939 paralysed all air services. From 1945 onwards air services progressed steadily. In 1945, 11 aviation companies were formed, and the Air Transport Licensing Board was established in 1946.

But it is only after Independence that civil aviation in India has made spectacular progress. In 1949 night air mail services were opened between the four metropolitan cities. In 1953 the Indian Airlines Corporation and Air-India International were set up by passing the Air Corporation Act. The Air Transport Council was set up in 1955 to advise the Government on matters relating to the two corporations.

At present the operation of air services is entrusted to two public sector corporations, Air India for the international services and Indian Airlines for the domestic services. The International Airports Authority of India, which was established in 1972, is responsible for the management of international airports.

Department of Civil Aviation: The department of civil aviation is one of the two departments in the Ministry of Tourism and Civil Aviation under the independent charge of a Minister of State.

Minister of State for Tourism and Civil Aviation: Khurshid Alam Khan. **Director General of Civil Aviation:** J. N. Kaul. (For other officials see "Government of India Personnel".)

Sixth Plan Outlay: Rs. 1,585 million.

Total Plan Outlay for 1983-84: Rs. 400 million

Annual Budget for 1983-84: Rs. 400 million

INTERNATIONAL AIRPORTS AUTHORITY OF INDIA, Yashwant Place, Chanakyapuri, New Delhi 110021. Based at Delhi, I.A.A.I. was established as a statutory corporation with effect from February 1, 1972 for the management and development of the four international airports at Bombay, Calcutta, Delhi and Madras.

Members: Capt. A. M. Kapur, *Chairman;* Capt. Dhruva Bose, *Chairman and Managing Director, Air India;* Capt. K. Chadha, *Managing Director, Indian Airlines;* Ved Prakash, *Member (Finance & Admn.), I.A.A.I.;* P. S. Sandhawalia, *Member (Engg.), I.A.A.I.;* A.V.M. P. S. Dere, *Member (Operations), I.A.A.I.:* Vacant, *Director-General, Tourism;* Air Vice-Marshal C. K. S. Raje, *Director-General, Civil Aviation.*

General Managers of International Airports: Bombay: Air Cdr. N. W. Tilak; **Delhi:** Air Cdr. N. Sinha Ray; **Calcutta:** Shri A. V. Anand; **Madras:** K. K. Gulati.

I.A.A.I./Operational Statistics		1980-81	1981-82	1982-83*
Aircraft Movement	Nos. in '000	111	108	
Passengers Movement	-do-	10,738	11,986	
Cargo handled	Tonnes '000	189	234	
Mail handled	-do-	35	30	
Revenue	Rs. in million	417.8	547.2	628.6
Operating Expenses	-do-	269.5	333.8	387.9
Profit before tax	-do-	148.3	213.4	240.7
Provision for tax	-do-	79.6	106.8	122.0
Profit after tax	-do-	68.7	106.6	118.7

*Revised estimates.

AIRPORTS: At the end of December, 1982, 87 airports were maintained by the Civil Aviation Department.

Major Aerodromes (22) are: Agartala, Ahmedabad, Amritsar, Aurangabad, Barapani, Bhubaneswar, Bhuj, Gauhati, Hyderabad, Imphal (Tulihal), Jaipur, Khajuraho, Lucknow, Mangalore, Nagpur, Panagarh, Patna, Ranchi, Trivandrum, Tiruchirapalli, Udaipur and Varanasi.

The following are Intermediate Aerodromes (20): Belgaum, Bhopal, Bhavnagar, Chakulia, Dibrugarh (Mohanbari), Gaya, Indore, Jabalpur, Kandla, Keshod, North Lakhimpur, Port Bihar, Raipur, Rajkot, Silchar, Tirupati, Vadodara, Vijayawada, Visakhapatnam and Madurai.

The Minor Aerodromes (45) are: Akola, Balurghat, Bilaspur, Behala, Cooch-Behar, Cuddapah, Delhi, Hassan, Hadapsar, Jharsuguda, Juhu, Kanpur, Khandwa, Khowai, Kailashahar, Kamalpur, Kota, Kulu, Jhansi, Jogbani, Kolhapur, Donakonda, Lalitpur, Malda, Muzaffarpur, Mysore, Nadirgul, Panna, Palanpur (Deesa), Porbandar, Pantnagar, Passighat, Rajamundry, Raxaul, Rupsi, Satna, Shella, Sholapur, Tanjore, Vellore, Warangal, Ramnad, Coimbatore, Dehradun and Ludhiana.

In addition there are many aerodromes controlled, owned and maintained by Ministry of Defence, State Governments, Public undertakings, private individuals and bodies.

AIR-INDIA: Headquarters: Air-India Bldg., Nariman Point, Bombay 400021. Has online and offline sales offices and representations all over the world.

Starting with just one weekly service to London in June 1948, Air-India now operates extensive scheduled passenger and cargo services from Bombay and five other Indian cities—Calcutta, Delhi, Madras, Trivandrum and Amritsar to Africa (Addis Ababa, Nairobi, Accra, Lagos, Seychelles, Mauritius, Dar-es-Salaam, Lusaka and Harare); to U.S.A. (New York); to Canada (Montreal); to Europe (London, Birmingham, Paris, Amsterdam, Frankfurt, Geneva, Rome, Zurich, Brussels and Moscow); to West Asia (Doha, Abu Dhabi, Dhahran, Dubai, Bahrain, Kuwait, Aden, Muscat, Jeddah, Ras-al-Khayam, Sharjah and Sanaa) and to East Asia (Dacca, Bangkok, Hong Kong, Tokyo, Osaka, Kuala Lumpur, Singapore, Perth and Sydney).

Fleet: Air-India today has ten Boeing 747s, five Boeing 707s and three Airbus A300s.

Board of Directors: Capt. Dhruva Bose, *Chairman-cum-Managing Director;* Air Chief Marshal Dilbagh Singh, M. M. Kohli, G. N. Mehra, Miss Prem Lal, R. P. Billimoria, Capt. A. M. Kapur, Capt. K. Chadha, C. L. Sharma, Capt. D. Bose, J. R. D. Tata. and Natwar Singh.

Management: Capt. Dhruva Bose, *Chairman-cum-Managing Director;* C. L. Sharma, *Dy. Managing Director;* Capt. D. Bose, *Dy. Managing Director;* J. N. Mogrelia, *Director of Finance;* H. M. Kaul, *Commercial Director;* Capt. C. P. Narayanan, *Director of Operations;* S. K. Nanda, *Director, Manpower Planning & Special Services;* H. C. Kapoor, *Director, Engineering;* P. Jayant, *Dy. Director, Management Services;* P. D. Marathe, *Controller of Stores & Purchases;* G. D. Dubey, *Controller, Communications;* S. K. Datta, *Dy. Director, Planning;* V. R. Subnavis, M. P. Patkar, *Controller, Civil Works & Properties;* and J. J. Naegamvala *Dy. Director, Inflight Service.*

Subsidiary Companies: The Hotel Corporation of India and Air-India Charters Limited.

The 288-room Centaur Hotel at Bombay Airport is the first 5-star hotel built by the Hotel Corporation of India Ltd., a wholly-owned subsidiary of Air-India. The second of the proposed chain was opened at Delhi Airport in November 1982. It has 416 rooms. The work has started on two other 5-star hotels, one on Juhu Beach, Bombay (396 rooms) and the other at Srinagar, Kashmir (281 rooms). The latter is part of a convention complex. In addition, two Japanese style hotels are to be constructed in collaboration with the Hokke Club of Japan at the famous Buddhist pilgrim centres of Rajgir in Bihar and Kushinagar in Uttar Pradesh. They will be named Centaur-Hokke Hotels.

Air-India set up on September 9, 1971 Air-India Charters Limited. This is a non-IATA charter company set up with a capital of Rs. 0.5 million.

INDIAN AIRLINES: (Head Office: Airlines House, 113, Gurdwara Rakab Ganj Rd., New Delhi 110001). The fleet as on June 30, 1982: 10 Airbus A300 B2, 25 Boeing 737, 8 Fokker Friendships F-27, 12 HS 748. The Airline's services extend over the entire sub-continent, including Nepal, Sri lanka, Afghanistan, Pakistan, Male and Bangla Desh. With operations to 70 stations, every 2.5 minutes one Indian Airlines plane is either taking off or landing at any of these airports. The operations of the Airlines have been divided into four regions: *Eastern Region:* Calcutta; *Western Region:* Bombay; *Northern Region:* Delhi; *Southern Region:* Madras.

Board of Directors: *Chairman:* R. P. Billimoria; *Directors:* Capt. Kamini Chadha, Dr. B. Venkataraman, Air Chief Marshal Dilbagh Singh, K. K. Srivastava, Miss P. Lal, Capt. A. M. Kapur, Capt. Dhruva Bose, Capt. N. M. Pereira.

Executive Heads: R. P. Billimoria, *Chairman;* Capt. K. Chadha, *Managing Director;* Capt. N. M. Pereira. *Deputy Managing Director;* S. Sen Gupta, *Director of Finance;* Capt. P. N. Reddy, *Director of Operations;* S. A. Rajagopal, *Commercial Director;* Dharam Vir, *Director of Engineering;* Capt. J. F. Ranji, *Director of Training (CTE);* R. K. Kanchan, *Controller of Stores & Purchases;* Capt. B. K. Bhasin, *Director, Flight Safety;* Ajit S. Gopal, *Public Relations Manager;* K. K. Sharma, *Controller, Ground Support;* Wg. Cdr. N. C. Bharma, AVSM, *Secretary.*

Regional Directors: Capt. R. A. Williams, Bombay (Western Region); Capt. R. K. Sen, Calcutta (Eastern Region); S. Sen, Delhi (Northern Region); Capt. V. K. Mehta, Madras (Southern Region).

Operations of Air India and Indian Airlines

The following table about the operations by Air India and Indian Airlines will give an idea about the performance of the two national carriers during the years 1981 and 1982:

	1981	1982
1.Hours flown	161,874	163,909
2.Kilometres flown (000)	88,067	91,161
3.Passengers kilometres flown (000)	12,038,725	13,263,882
4.Passengers carried (000)	7,498	8,293
5.Cargo carried freights (Tonnes)	133,269	141,473
6.Mail " " "	20,395	20,482
Total " " "	153,664	161,955
7.Tonne Kms. preferred (000)		
(i) Passenger	1,051,246	1,148,157
(ii) Freight	427,719	432,363
(iii) Mail	37,332	36,811
Total	1,516,297	1,617,331
8.Capacity tonne Kms. available (000)	2,384,003	2,616,073
9.Revenue weight load factor (%)	63.6	61.8
10.**Average length of haul in Kms.**		
a) Passenger	1,606	1,599
b) Freight	3,209	3,056
c) Mail	1,830	1,797
11.**Operating Revenue (Rs. in thousands)**		
a) Passenger	6,945,379	8,455,957
b) Freight	1,484,371	1,716,012
c) Mail	182,118	194,105
Total	8,611,868	10,366.075
12.**Operating Revenue per Unit of service**		
a) Passenger Revenue per passenger (Kms.)	0.58	0.64
b) Freight Revenue per tonne (Kms.)	3,47	3.97
c) Mail Revenue per tonne (Kms.)	4.69	5.27

VAYUDOOT was launched on January 26, 1981 with an authorised capital of Rs. 250 million to provide airlinks initially to inaccessible areas in the North-Eastern Region and is jointly owned by the Indian Airlines and Air India on a 50:50 basis.

At present the company is operating the following major services: New Delhi-Ludhiana: Gangtok-Bagdogra; Jamshedpur-Ranchi-Patna-Muzzaffarpur; Hissar; Gauhati-Shillong-Silchar; Agartala-Kailashshahr-Agartala; Chabua-Tezu-Chabua; Calcutta-Jamshedpur-Rourkela-Ranchi-Patna, Delhi-Chandigarh-Kulu and Bombay-Kandla.

Chairman (Part-time): Capt. A. M. Kapur.

FLYING CLUBS: There are 25 subsidised flying clubs with their headquarters at Amritsar, Hyderabad, Gauhati, Banasthali, Patna, Bombay, Coimbatore, New Delhi, Bangalore, Vadodara, Lucknow, Hissar, Jamshedpur, Karnal, Trivandrum, Indore, Nagpur, Madras, Jullundur Cantt., Bhubaneshwar, Patiala, Jaipur, Behala (Calcutta), Raipur and Ludhiana.

During 1982, Government paid an amount of Rs. 2.03 million as subsidy to these clubs who logged a total of 14,184 hours for imparting training to trainees/members.

GLIDING CLUBS: Besides the Government centre at Pune there are 16 subsidised gliding clubs/gliding wings of flying clubs at Agra, Ahmedabad, Amritsar, Delhi, Deolali, Hissar, Jaipur Jullunder, Kanpur, Pilani, Raipur, Patiala, Patna, Hyderabad, Ludhiana and Pinjore.

The number of gliders registered up to December 1982 was 113 of which 31 hold current certificate of airworthiness.

RESEARCH & DEVELOPMENT DIRECTORATE

Principal functions: *(i)* Airworthiness engineering including type-certification of civil aircraft and aeronautical equipment; approval of modifications to civil aircraft, etc. *(ii)* Research, evaluation and development, including investigations on operational problems like aircraft noise, atmospheric turbulence, evaluation of performance and economics of civil transport and other aircraft, etc, *(iii)* Prototype development, including design and development of prototype light aircraft gliders, sailplanes, winches, etc. *(iv)* Airworthiness engineering training.

AIRCRAFT DEVELOPMENT: An engine mount for reengining of the PUSHPAK aircraft has been developed and fabricated. Due to shortage of spares of the existing engine being used on this aircraft it has become necessary tc carry out this modification for full utilisation of the existing fleet of PUSHPAK aircraft being used by flying clubs and other operators in the country.

Glider Development: As on December 31, 1982, the design, development and construction of prototype powered glider RG-1 was in an advanced stage and was expected to be completed and test-flown shortly.

Winch Development: The fabrication of the second prototype of a diesel engine powered winch is in progress. A set of design drawings for Dhanush-I diesel engine was prepared.

Aircraft Registration: At the end of December 1982, 688 aircraft held current certificates of registration and 293 aircraft held current certificates of airworthiness.

Navigational and Communication Aids: As on December 31, 1982, the Aeronautical Communication Services were operating and maintaining 90 Aeronautical Communication stations, providing 256 acromobile channels in the aeronautical mobile service, 275 radio and landline circuits in the aeronautical fixed telecommunication network, 216 navigational channels and 9 ground-to-air voice broadcast channels in the Aeronautical Broadcast Service.

During the year 1981. Direct Speech Circuits were established between Madras-Colombo, Madras-Nagpur, Bombay-Cochin; Landline Teleprinter Circuits were established between Madras-Colombo Madras-Kuala Lumpur and an area Control Centre commissioned at Trivandrum.

Training Centres: The Civil Aviation Training Centre, Allahabad, comprising of an Aerodrome School and Communications School, is the principal training centre in the country, where basic training and refresher courses are conducted for departmental officers During the year 1982, 324 persons were trained in various categories.

Facilities exist for training of glider instructors and winch operators at the Government Glider Centre, Pune. Facilities are available at the Fire Services Training School at 229, N. Subash Rd., Calcutta, for training of departmental candidates for courses in "crash and fire rescue". Facilities for training foreign national are also available at Allahabad and other centres under various aid schemes.

The establishment of a Civil Flying Academy is under consideration of the Government.

Accidents: During the period January 1, to December 31, 1982, there were 25 nofifiable accidents in India. Three of the accidents proved fatal resulting in the death of 6 crew members and 15 passengers.

Air Transport Agreements: Agreements have been concluded with Afghanistan, Australia, Bahrain, Bangladesh, Belgium, Burma, Canada, Czechoslovakia, Egypt, Ethiopia, Federal Republic of Germany, Fiji, France, Ghana. Hungary, Indonesia, Iraq, Iran, Italy, Japan, Kenya, Kuwait, Lebanon, Malaysia, Mauritius, Republic of Maldives, Nepal, Netherlands, Nigeria, Poland, Pakistan, Philippines, Qatar, Saudi Arabia, Seychelles, Singapore, Sri Lanka. Sweden, Switzerland, Syria, Thailand. U.K., U.S.A., U.S.S.R., Yemen People's Democratic Republic, Zambia, Tanzania, North Yemen, Oman and U.A.E.

Civil Aviation Security: Two bills, namely the Anti-hijacking Bill and the Suppression of Unlawful Acts against safety of Civil Aviation, were passed by Parliament and received the President's assent on November 6, 1982. These bills have come into force on November 15, 1982.

PORTS

A PORT being the gateway to a country's commerce and prosperity, it facilitates the movement of passengers and cargo between the ship and shore through well-equipped and maintained docks, wharves, quays, berths and jetties. The Indian ports, scattered over a vast coastline, have played an important role in maritime trade. Even during the ancient civilization of the Monenjodaro period and through the Moghul period India was well-known for trade in spices, pepper, oils, silks, ivory, precious stones and other luxuries to far-off countries like Alexandria and Rome. History has recorded the many maritime struggles between the British, French, Dutch and the Portuguese for the supremacy of the Indian coastline with the eventual success of the East India Company.

As India stepped into the industrial age under British rule, Indian ports were fast modernised and the port capacity expanded. At the time of independence there were only four major ports: Bombay, Calcutta, Cochin and Madras. Today we have ten major busy ports bustling with passenger and cargo activities, both domestic and international. Additionally, there are 21 intermediate ports and 152 minor ports.

To meet its tight schedule, each major port is equipped with its own road, waterways and railway network connecting it to the sprawling hinterland. Berthing, bunking, watering facilities, dry docks (wherever possible) for servicing facilities besides transit sheds, warehouses, etc. are other development aspects necessary for the smooth functioning in every major port.

The ten major ports are Bombay, Calcutta, Cochin, Kandla, Madras, Mormugao, New Mangalore, Paradeep, Port of Tuticorin and Visakhapatnam. All major ports together handled 87.41 million tonnes of cargo during 1981-82 against 81.32 million tonnes during 1980-81.

State-wise distribution of intermediate ports and the number of minor ports respectively are:

Andhra Pradesh: Masulipatam, Kakinada and five minor ports. **Gujarat:** Okha, Porbandar, Bhavnagar, Navalakhi, Bedi, Veraval, Bharuch, Mandvi, Sikka, Surat and 40 minor ports. **Karnataka:** Karwar, Mangalore and 19 minor ports. **Kerala:** Alleppey, Kozhikode, and nine minor ports. **Maharashtra:** Ratnagiri, Redi, and 46 minor ports. **Orissa:** Two minor ports. **Pondicherry:** One minor port of Pondicherry only. **Tamil Nadu:** Cuddalore, Nagapattinam, Tuticorin and eight minor ports. **Andaman & Nicobar Islands:** 15 minor ports. **Lakshadweep Islands:** Seven minor ports.

Nine major ports are administered by Port Trusts, which are statutory bodies, whilst New Mangalore Port is administered directly by the Govt. of India. The intermediate and minor ports are administered by State Governments.

A Central ports authority has been mooted by Union Government to supervise the management of all port trusts.

The National Harbour Board: The Board advises the Central Government on matters of general policy relating to port management and development including the effects on industry, commerce, shipping, railways etc. so as to ensure integrated consideration of all important port matters.

Port Development: A provision of Rs. 6,000 million has been suggested to the Planning Commission for the development of major ports in the Five Year Plan (1980-85). The Annual Plan outlay for 1980-81 for major ports is Rs. 990 million.

LIGHTHOUSES: There are 360 lighthouses, 8 lightvessels, 13 fog signals, 12 M.F. radio beacons, 2 harbour control radars, 3 Decca Navigator chains, 6 Racons and several hundreds of lighted and unlighted buoys, beacons, land marks etc. serving as aids to navigation—strewn over the coastline of approximately 7,000 kms. including Andaman, Nicobar and Lakshadweep Islands.

BOMBAY: The port of Bombay owns landed estates extending over 761 hectares from Pilot Bunder to Wadala and the docks cover an area of 235 hectares. There are 3 enclosed wet docks with a total area of 46.30 hectares, and quayage of nearly 7,776 metres inside the wet basin and 853 metres along the harbour wall. Sassoon Dock has a water area of 1.5 hectares and limited facilities for five ships of 1,000 tonnes.

Besides the docks there are a number of "Bunders" or open wharves along the harbour front with a total quayage of about 12.5 kms.

Repair facilities for shipping are provided at two drydocks—Hughes and Merewether.

The port maintains its own railway system which serves the docks, ten local stations and a large number of sidings on the Port Trust estates. It also connects the main line railways.

Of all Indian ports, the Bombay port handles the largest number of containers and their number is increasing. In 1980-81 the port handled 101,281 containers, weighing 1,027,870 tonnes, in 1981-82 it handled as many as 131,900 containers weighing 1,455,377 tonnes, and in 1982-83 it handled 130,695 containers weighing 1,460.069 tonnes.

The Bombay port has undertaken the construction of an additional oil berth at its Marine Oil Terminal at Butcher Island, for handling large-sized oil tankers.

Considering the need for provision of port facilities for handling dry bulk and containerised cargo in modern large-sized ships, and the physical restraints which preclude the development of these facilities at the existing port, the Central Government has decided to proceed with the construction of the new port at Nhava-Sheva. After the construction of the new port, break-bulk general cargo can be handled in a more efficient manner at the Bombay Port.

Chairman: K. K. Uppal; **Dy. Chairman:** K. B. Srinivasan; **General Manager:** K. Nalinakshan; **Secretary:** R. U. Pai.

CALCUTTA: There are three impounded dock systems known as Kidderpore Dock, Netaji Subhas Dock and Haldia Dock. Kidderpore Docks comprise No. 1 and No. 2 Docks and Turning Basin. Netaji Subhas Dock has a lock entrance 700 ft. long and 90 ft. wide. There is one oil berth, one container berth and seven general cargo berths. In addition there are one lay-up berth, three lighter berths and one heavy-lift berth. There are also two riverside jetty berths at Garden Reach for sea going vessels.

There are six jetties with pontoons at Buj Buj, about 23 km. from Calcutta, for handling liquid cargo.

The Haldia Dock System has one riverside oil jetty, two fully mechanised berths for iron ore and coal, one modern container berth, one general cargo berth, one phosphate berth and one finger jetty for handling salt and fertiliser.

The port can handle about 16 million tonnes of traffic annually.

Anchorages (from sea upwards) at Saugor Roads, Haldia, Kalpi, Diamond Harbour, Rayapur, Uluberia and Garden Reach are available. One berth is available for warships of cruiser class.

There are five dry docks—two in Netaji Subhas Dock, and three in Kidderpore Dock No. 1.

Of late, containers are also being handled at Calcutta at 'D' berth, Netaji Subhas Dock. Taking into account the differences in size, design and mode of berthing the port can hold about 65 to 70 vessels in impounded docks, riverside jetties and river moorings.

The chief exports from Calcutta are coal, tea, sugar, gunnies, bone and bone-meal, bunker oil, iron and steel manufactures, lac, scrap, engineering goods, ores, mica and railway wagons. The principal imports are salt, foodgrains and flour, sulphur, tinplate, machinery, Crude oil, petroleum, iron and steel, metals other than iron and steel, lubricating oil, cement, soda, timber, fertilisers, bricks, chemicals, oils and railway material.

Chairman: T. C. Dutt, I.A.S.; **Deputy Chairman,** Calcutta: Dr. A. C. Ray, I.A.S.; **Deputy Chairman,** Haldia: M. K. Kargupta, I.A.S.; **Secretary:** R. P. Chanda.

COCHIN: The port of Cochin is open for deep water traffic in the worst monsoons and provides a splendid anchorage at all times of the year. Any ship drawing upto 30 ft. draught can enter the port even in the roughest weather.

The Cochin Harbour Railway is connected with the broad gauge system of the Southern Railway. Inside the harbour there are 11 stream berths, 2 coal berths, 8 wharf berths, 1 boat train pier jetty, one open berth and 2 tanker jetties. Facilities for handling container cargo are provided at Q-5 berth of Ernakulam wharf.

During the Sixth Plan (1980-85) it is proposed to provide additional container handling facilities at Q-9, floating craft like tugs etc. and improvement of infra-structural facilities. An integrated scheme for port development consisting of an oil terminal and a fertiliser berth with 40 ft. draught is one of the most important schemes of the port's Sixth Plan.

The principal imports are foodgrains, mineral oils (crude), cashewnuts, zinc concentrate, fertiliser and its raw materials. The principal exports are coir and coir products, tea, rubber, cashew kernels, seafoods, spices, and mineral oil products.

Cochin port set up an all time record by handling 5.57 million tonnes of cargo traffic during 1981-82.

Chairman: T. N. Jayachandran, I.A.S.

KANDLA: The major port of Kandla has now the following main facilities:

A cargo jetty with: (a) 1,166 m. of quayage and designed depth of 9.8 m. of water alongside to accommodate five large size ships or six liberty type ocean-going vessels; a marine unloader, designed to handle 500 tonnes of fertiliser and its raw materials per hour, has been installed at the fifth berth and commissioned. (This has a back-up storage facility of 30,000 tonnes and has automatic bagging and stitching arrangements); (b) three single storeyed transit sheds, each 137 m. long and 43 m. wide, with a total storage capacity of about 15,000 tonnes of general cargo; (c) broad wharves liberally served by dual gauge system of railway lines and roads; (d) 21 electric quaycranes, the most modern type of 3 tonnes, 6 tonnes and 10 tonnes capacities; (e) spacious open stacking grounds served with railway and road sidings; (f) four double storeyed warehouses, each 152 m. long and 37 m. wide with storage capacity of 60,000 tonnes, with overbridge connections to the roofs of the transit sheds, and provided with modern cargo lifts, chutes and loading platforms; (g) 'Grinnel' automatic sprinkler and fire alarm system has been provided in one warehouse as a measure for protection against fire, for the storage of cotton cargo in the warehouse, dangerous cargo sheds of 320 tonnes capacity and a calcium carbide shed of 48 tonnes capacity; two vegetable oil tanks with a total capacity of 400 tonnes; 4 sheds for storage of 12,000 tonnes of general cargoes: (h) 2 oil jetty berths with 8 pipelines of different dimensions for handling P.O.L., edible oil and liquid chemicals; (i) 60 tonnes gantry crane in Bunder for heavy packages; (j) fishing jetty with 2 tonnes crane with cold storage facilities.

Eighty-one tanks with storage capacity of 193,358 tonnes have been erected in the vicinity of the port by private owners. A warehouse of 5,000 tonnes storage capacity has been built by the Central Warehousing Corporation inside the cargo jetty area.

The port is equipped with V.H.F. communication network for maintaining contact with pilot launches, survey launches and ships calling at the port.

The port is connected to its hinterland by broad gauge rail connection via Jhund-Ahmedabad and metre gauge rail connection via Disa-Palanpur. Also a national highway connects Kandla to Ahmedabad.

A Free Trade Zone has been established at Kandla.

The chief imports are P.O.L., Phos. Acid, Veg. Oil, Liquid Ammonia, Fertiliser, raw material for fertiliser, iron and steel, pig iron, soda ash, gift cargo, cement, etc. Exports are rice, barley, Guar gum, rice bran extraction, bauxite, salt etc.

Single Buoy Mooring (SBM) to handle VLCC to discharge crude oil through 2 shore based submersible pipelines with capacity of 2,000 tonnes each per hour, was commissioned in August, 1978.

The container traffic through this port commenced in October, 1981. During 1981-82 8 container vessels have been handled with 1217 TEU's.

Chairman: S. L. Verma, I.A.S.; **Secretary:** B. S. Barot.

MADRAS: Berthing facilities: There are in all 20 berths and 3 moorings with depth ranging from 7.90m. to 14.6m. The alongside berths include an oil berth in the Bharathi Dock

Bharathi Dock: This outer dock located on the northern side of the main harbour basin is named after Subramania Bharathi. The dock comprises an oil berth and ore berth both designed to cater to 100,000 DWT tankers.

The oil berth now catering to 88,000 DWT tankers consists of five marine loading/unloading arms, 3 for handling crude and 2 for refined products. The crude can be handled at 4,000 tonnes per hour and the refined products at 700 tonnes per hour.

A fully mechanised iron ore handling facility designed for receiving by rail, stockpiling, reclaiming, weighing, sampling and shiploading iron ore was completed and commissioned. The second stream was commissioned on March 21, 1978. The quantity to be handled per annum will be 5 million tonnes initially and 8 million tonnes ultimately. It consists of 2 streams each of 4,000 TPH capacity for shiploading operation.

Cargo handling equipment: Modern cranes of various capacities have been provided at each berth in addition to an adequate number of mobile cranes, forklifts, platform trucks, tractors, trailors etc. In addition a floating crane 'VAIGAI' of capacity 120 tonnes also helps the handling of heavy packages overside. Palletisation on an extensive scale is also among other factors helping to achieve quicker turn-round of vessels. Pre-aligning method in cargo handling has also been introduced.

Containerisation: Stage I—Effective from the 14th April 1982, a Container Parking Yard, Container Freight Station and 2 nos. Tyre-mounted Transfer Cranes of 35.5 tonnes capacity each have become operational at the Container Terminal at the outer harbour. Besides, 20 nos. Trailers for handling 20'/40' containers and 12 nos. Tractor Heads were also procured recently; Stage II—To provide ship to shore handling facilities, the construction of a container berth of 300 metres length is in progress and expected to be completed in April 1983. The electrical and mechanical items of work will include the purchase and installation of 2 nos. Rail-mounted Container Quay Cranes. The total cost of the Scheme will be Rs. 270 million.

Storage and other facilities: There are 17 warehouses and 10 transit sheds providing covered accommodation of 800,600 sq. mtrs. and 47,450 sq. mtrs. respectively with rail-road access. Bonding facilities and separate stacking area for hazardous goods are available. In addition 325,000 sq. mtrs. of open area is also available for storage.

Apart from this there are 8 storage tanks of capacity ranging from 1,000 to 10,000 tonnes with shore-to-ship and vice versa pumping facilities to handle liquid cargo.

Types of cargo handled: The main imports are coal, mineral oils, fertilisers, phosphate, sulphur, phosphoric acid, machinery, hardware, iron and steel, cement, metals and timber.

The principal exports are iron ore, barytes, food grains, hides and skins, refined oil products, sugar, tobacco, oil cake, scrap, twist and granite.

Chairman: V. Selvaraj, I.A.S.; **Deputy Chairman:** Ashoke Joshi, I.A.S.

NEW MANGALORE: New Mangalore port is situated 9 kms. north of the existing minor port of Mangalore and is the 9th major port in the country.

It is connected by a broad gauge line to Madras (via) Shoranur and the National Highway 17 connecting Bombay to Kanyakumari passes close by. The Mangalore-Hassan metre gauge railway line connecting the new port with its hinterland has been opened for movement of cargo.

The development of the new port has been taken up in stages. In the first stage development, three alongside berths to cater to the needs of (1) fertilizers, (2) iron and manganese ores and (3) other general cargo and one shallow berth were provided along with an oil jetty for handling naphtha and petroleum products. The drafts available at two of the alongside berths is 9.45 metres while the third berth is provided with 10.10 metres draft. The oil jetty and the shallow berths are provided with drafts of 9.75 metres and 6.50 metres respectively. The three transit sheds in the wharf area provide storage facilities for a cargo of 18,000 tonnes.

During the second stage of development, facilities have been provided to cater to the needs of receiving 60,000 DWT ore carries for export or iron ore concentrates from the Kudremukh region. A fully mechanised iron ore berth with a ship loader having a capacity of 6,000 tonnes per hour and a draft of 12.50 metres has been commissioned. With the completion of the second stage, this port has become the deepest inner harbour in the country.

Traffic: The traffic through the port has increased from a meagre 0.091 million tonnes in 1974-75 to 2.272 milion tonnes in 1982-83. There was spurt in traffic during 1981-82 and 1982-83, and the increase in traffic were 70 per cent and 40 per cent respectively compared to the preceding years. With improved productivity and good labour relations prevailing in this Port, the increase in traffic will be maintained for this year also and it is expected that the traffic during 1983-84 will be more than 2.50 million tonnes.

Future development: Owing to steady increase in general cargo, another general cargo berth at an estimated cost of Rs. 72.8 million has been sanctioned by the Government. Work on the berth is in full swing and the berth is expected to be commissioned by December, 1983.

MORMUGAO: A major port providing modern facilities in handling oil, iron and ferroginous manganese ores and general cargo traffic.

During the year 1982-83, the Mormugao Port handled a total traffic of 12.76 million tonnes, which constituted 11.41 million tonnes of iron ore and iron ore pellets, 0.22 million tonnes of manganese ore, 1.00 million tonnes of oilcakes, sugar, frozen shrimps etc. (all in exports) and 0.98 million tonnes of imports consisting of mineral oils, phosphoric acid, fertilisers, cement, foodgrains, petroleum coke and other general cargo and 0.05 million tonnes of transhipped cargo of POL products.

Modern ore handling facilities: The ore berth and mechanical ore handling complex with a rated loading capacity of 8,000 tonnes per hour provides accommodation for the ships of 160,000 DWT and 305 m LOA for loading to a draft of 12 m. Higher loading draft is allowed subject to tide and weather conditions.

Chairman: Cecil Noronha. I.A.S.; **Dy. Chairman:** L. da Rocha.

PARADIP: The deep-water, all-weather major port of Paradip is situated on the east coast in the Bay of Bengal. The port is 210 nautical miles south of Calcutta and 260 nautical miles north of Visakhapatnam.

Paradip is connected by broad gauge railway system, national highway No. 5-A, and state express highway to other parts of India.

The port has one iron ore berth, one general cargo berth and a mooring buoy berth. The iron ore berth is equipped with a mechanical ore handling plant with a rated capacity of 2,500 tonnes per hour. It can accommodate vessels of 60,000 DWT, 260 mtrs. LOA and 11.9 mtrs. draught. The general cargo berth has a length of 290 mtrs and can accommodate vessels of 10.5 mtrs. draught. This berth is served with three 13-tonne shore cranes and is provided with transit sheds of 15,000 tonnes total storage capacity. Two additional transit sheds and five warehouses and large open stacking yards served by roads and rail are available. The port is equipped with most modern cargo handling equipments consisting of mobile cranes of 35-tonne capacity, forklifts, dumpers, etc. The mooring buoy berth can accommodate vessels of 11.9 mtrs. draught and 260 mtrs. LOA.

Apart from these berths three other berths are under construction.

Chairman: M. Y. Rao, I.A.S.

TUTICORIN PORT: It is a major port consisting of two wings i.e. the erstwhile major port of New Tuticorin (Zone-A) and the erstwhile intermediate Port of Tuticorin (Zone-B), functioning under a single administrative set up.

The Zone-A has 4 alongside berths with total quayage of 810 m. two of which have transit sheds (each of size 150 m x 36 m), for handling bulk, break-bulk, general cargoes and containers. One permanent oil jetty is also available for handling POL products. A coal jetty to handle Tamil Nadu Electricity Board coal has been built and become operational. The port can receive vessels with draughts upto 8.24 m. at all times and 8.85 m. at high tides. There is a hazardous cargo shed with 11 compartments (a total of 650 sq. m. of floor area) for the storage of various classes of cargo under the IMCO code. A fumigatorium for fumigating 2,000 bales of cotton at a time is available. Three warehouses (a total of 15,550 sq. m. floor area) at the shore are available. Besides these, 24,000 sq.m. open cargo stacking yard is available in front of the warehouses. The cargo handling equipment in this port include 10 wharf cranes with capacity varying from 3 T to 10 T, 13 mobile cranes, 18 fork lift trucks, 4 front end loaders and 2 diesel locos. Bunkering facilities and supply of fresh water to vessels are provided round the clock

Zone-B, which is also called as extension port is an anchorage port having lighterage facilities to handle ships of any size and draughts. Wharves and jetties of various sizes to a total length of 1043.43 m. are available for berthing lighters and barges with a draught of about 2.75 m. There is a dry dock of size 45.70 m. long, 15.20 m. wide and 2 m. of water above sill and backed with workshop facilities. In this zone a covered storage area of 14,460 tonnes capacity is available (13 Nos. of sheds like transit sheds, cumbustible shed and dutiable cargo shed etc.). For stacking purposes an open platform of 61,500 tonnes capacity is available.

All the berths in the major port and the wharves and jetties of the extension port are served by railway lines connected to the Southern Railway on the metre gauge. The Port is also linked directly to the National Highway 7-A.

Chairman: K. A. Sundaram, I.A.S.

VISAKHAPATNAM: Ships drawing upto 10.21 mtrs. having a length upto 195 mtrs. can enter the inner harbour. Ships drawing upto 15.3 mtrs. and having a length upto 263 mtrs. can be accommodated at the outer harbour ore berth.

The inner harbour consists of six east quay berths, two west quay berths, an oil wharf consisting of two berths, one mechanised fertiliser berth, three jetty berths and one mooring berth. It can accommodate 14 ships alongside and one in moorings. All the quay berths are equipped with electric cranes, transit sheds, railway lines, road approaches etc.

The outer harbour, with an iron ore berth-finger type jetty (OB I and OB II) capable of accommodating two ore carriers, each of 100,000 DWT, simultaneously on either side of the jetty, equipped with mechanical ore handling plant capable of loading iron ore at 8,000 tonnes per hour, has been commissioned.

A dry-dock 137.16 mtrs. long, 18.44 mtrs. wide, 5.63 mtrs. deep can accommodate ships of 122 mtrs. in length and 4.9 mtrs. draught. A graving dry-dock is available for dry-docking ships upto 70,000 DWT

The port has 6 transit sheds capable of accommodating 48,100 tonnes of cargo. The 2 storage sheds at the S. L. Canal area can store about 13,200 tonnes.

Two large warehouses, with a capacity of 30,500 tonnes can be used for the storage of cargo awaiting shipment.

The stacking capacity for iron ore is 600,000 tonnes. For stacking mineral ores, a vast area of about 91,273 sq. mtrs. is available.

Open space measuring about 187,881 sq. mtrs. is available for storage of pig iron, steel materials, rock phosphate, sulphur, general cargo etc.

Chairman: R. K. R. Gonela; **Dy. Chairman:** K. Sridharan; **Secretary:** R. Jeevaratnam.

GUJARAT PORTS: There are in all 42 ports in Gujarat State of which Kandla is a major port. Diu and Daman are centrally administered ports while 11 intermediate and 28 minor ports are under the administrative control of the State Government through the Director of Ports, Ahmedabad 380 016.

Cargo handled in tonnes by Gujarat Group of Ports (Imports and Exports respectively) during 1980-81 was: Mandvi (1,917-91,458); Navlakhi (253,801-6,110); Bedi (347,756-634,398); Okha (176,014-99,698); Porbandar (85,756-136,424); Veraval (164,101-162,715); Bhavnagar (422,606-78,547); Mahuva (12,001-77,796); and Bharuch (28,436-437)

Intermediate Ports: Mandvi, Navlakhi, Bedi, Sikka, Salaya, Okha, Porbandar, Veraval, Bhavnagar, Bharuch and Surat (Magdalla).

Minor Ports: Koteshwar, Jakhau, Mundra, Jodya Pindhara, Rupen (Dwarka), Beyt, Kotda, Mangrol, Madhvad, Navabandar, Talaja, Gogha, Mahuva, Jafrabad, Pipavav, Rajpara, Khambhat, Dhahej, Bhagwa, Onjal, Billimora, Valsad, Umarradi, Vansiborsi, Kolak, Maroli, Umbergaon.

Development Works: The work of all weather port project at Porbandar is completed and the port is being developed as a fishing harbour. Veraval and Mangrol ports are also being developed as fishing harbours with World Bank assistance costing Rs. 235 million. Development work on the ports of Jafrabad and Magallara is progressing. These ports are to cater the needs of cement, clinker and coal traffic. The estimated cost of the development is Rs. 120.9 million. Gogha and Dhaheja ports on the Gulf of Cambay are being provided with a service ferry for transporting loaded trucks, buses, cars etc. at an estimated expenditure of Rs. 51.5 million. Hazira in Surat is also under consideration for further development.

MAJOR PORTS (1982-83)

Ports	Receipts Rs.	Expenditure Rs.	No. of Passengers embarked	No. of Passengers disembarked	Imports in Tonnes	Exports in Tonnes
Bombay	1,531,930,000	874,888,000	123,416.5	126,033.5	11,498,825	13,602,367
Calcutta	1,317,400,000	1,198,500,000	20,437	16,938	7,005,000	3,487,000
Cochin	209,249,777	253,226,700	4,591	12,947	4,471,447	1,238,724
Kandla	—	—	—	—	8,806,625*	723,827*
Madras	431,019,000*	301,809,000*	40,149*	42,111*	7,302,000*	4,704,000*
Marmugao	278,640,000*	276,163,000*	—	—	980,401	11,728,248
New Mangalore	71,879,336	64,472,724	55	137	851,319	1,420,508
Tuticorin	70,780,727	54,894,521	—	—	2,848,330	381,358
Visakhapatnam	422,200,000*	442,400,000*	2,167*	1,885*	3,974,172*	6,848,711*

*Figures represent 1981-82.

EAST COAST PORTS (1981-82)

Ports	Receipts Rs.	Expenditure Rs.	No. of passengers embarked and disembarked	Imports in tonnes	Exports in tonnes	Total tonnage of cargo handled
Colachel	26,748.25	29,878.11	—	—	10,972.00	10,972.00
Cuddalore	607,108.85	2,757,573.95	—	141,832.00	27,959.00	169,791.00
Kakinada†	11,352.000‡	8,699,000‡	—	333,500‡	939,300	1,272,800‡
Kanyakumari	777,911.15	2,110,425.92	—	—	—	—
Kilakkarai	5,833.50	27,721.40	—	—	—	—
Nagapattinam	837,424.40	879,824.38	6,531	40,586.09	28,641.09	69,227.18
Pamban	14,433.55	93,836.05	—	—	—	—
Rameswaram	863,706.47	404,469.50	185,187	133.00	290.50	423.50

†Figures represent 1982-83. ‡Receipt and expenditure include all minor ports. Imports and exports related only to Kakinada Port.

MINOR PORTS OF MAHARASHTRA STATE (1982-83)

Group of Ports	Passengers embarked and disembarked		Imports in Million Tonnes	Export in Million Tonnes	Total in Million Tonnes
	Steamer passengers traffic	Creek passengers traffic by launch and ferry service			
Bandra	—	3,741,129	1,663	11,259	12,922
Mora	—	1,565,376	68,210	40,917	109,127
Rajpuri	—	941,247	7,326	498	7,824
Ratnagiri	36,330	3,513,238	60,079	1,813	61,892
Vijaydurg	84,889	1,246,496	9,150	979	10,129
Vengurla	—	858,320	4,556	393,347	397,903
Total	121,219	11,865,806	150,984	448,813	599,797

MINOR PORTS OF KERALA (1981-82)

Name of Ports	Receipts Rs.	Expenditure Rs.	No. of passengers embarked and disembarked	Imports in tonnes	Export in tonnes	Total tonnage of cargo handled
Alleppey	35,017	593,120	—	—	—	—
Azhikkal	90,375	139,728	—	121	17,572	17,693
Cranganore	1,892	20,364	—	—	—	—
Badagara	8,659	13,705	—	—	—	—
Calicut (including Beypore)	611,703	1,628,580	179 & 234	93,661	70,041	163,702
Cannanore	5,793	22,785	—	—	—	—
Kasargode	11,573	25,869	—	—	—	—
Neendakara	1,109,376	1,499,423	—	—	68,015	68,015
Ponnani	5,685	31,815.63	—	—	—	—
Tellicherry	5,840	33,361	—	—	—	—
Trivandrum	6,460	89,758	—	—	—	—
Vizhinjam	926	54,987	—	—	—	—
Quilon	54,116	22,205	—	—	—	—

RAILWAYS

THE first railway (consisting of 14 four-wheeled teak coaches carrying 400 passengers) in India covered over a 33.6 kms. from Bombay to Thana on April 16, 1853 amidst much public rejoicings at seeing the "iron horse gallop along". The systematic development of rail communications, however, took place after 1858. Up to 1857, railway was practically unknown, except for a few miles around Bombay, Calcutta and Madras.

The freedom movement highlighted the need for proper communications. Thus by 1871, a general system connecting the different provinces and the hinterland of each province with its ports was completed.

The Government of India took under direct management: The East India Railway—1st January, 1925; Great Indian Peninsular Railway—30th June, 1925; Burma Railways—1st January, 1929; Southern Punjab Railway—1st January, 1930.

The Indian Railways system is the biggest public sector undertaking employing the largest number of workers. It is the cheapest and most popular system of transport connecting the entire country. Considered to be the largest network in Asia and the fourth largest in the world, it plays a vital role in the country's industrial development by freighting basic raw materials like coal, oil, steel, cement, etc. apart from food items.

Zonal Administration: The entire Railway system is now grouped into nine administrations (Headquarters within brackets) each headed by a General Manager: Southern Railway (Madras); Western Railway (Bombay); Central Railway (Bombay); Northern Railway (Delhi); Eastern Railway (Calcutta); South-Eastern Railway (Calcutta); North Eastern Railway (Gorakhpur); Northeast Frontier Railway (Maligaon, Gauhati); South Central Railway (Secunderabad).

The railways have four major training institutions. They are: (i) the Railway Staff College, Vadodara; (ii) the Indian Railway Institute of Advanced Track Technology, Pune; (iii) the Indian Railway Institute of Signal Engineering and Telecommunications, Secunderabad, and (iv) the Indian Railway Institute of Mechanical and Electrical Engineering, Jamalpur.

New trains introduced during 1978-79: Madras-Ahmedabad Navjivan Express; Bhubaneswar-Secunderabad Konark Express; Secunderabad-Bombay Minar Express; Dur-Varanasi Sarnath Express (Bi-weekly); Howrah-Jammu Tawi Himagiri Express (Biweekly); Ahmedabad-Udaipur City Express; Ahmedabad-Bhavnagar-Porbandar Gandhigram Express and Jaipur-Bikaner Express (metre gauge). **During 1980:** Bombay VT-Varanasi Mahanagari Express; Puri-New Delhi Nilachal Express. **During 1981:** Karnataka Express between New Delhi and Bangalore; Kerala Express between New Delhi and Trivandrum. **During 1983:** Udyan Express between Bombay and Bangalore; VT-Andheri local.

SOME BASIC FACTS

No. of daily passengers: 10.0 million; first sleeper accommodation for II Class (then III Class) introduced in 1954; total no. of sleeper coaches: 3,973 (2,919 broad gauge and 1,054 metre gauge); labour force: 1.58 million men and women; no. of trains daily: about 11,000; no. of stations: 7,072; Railway Budget separated from Central Budget: 1,925; carrying capacity of wagons—2 axle wagons: 22 tonnes, 4 axle wagons: 55 to 65 tonnes; gross load or average freight train—conventional (2 axle wagons): 2,230 tonnes; special (4 axle wagons): 3,650 tonnes; container service introduced: January, 1966: fastest train: Rajdhani Express (started 1969)—Delhi to Calcutta—covers, 1,445 kms. in 17 hours—permissible speed—130 kms. p.h.; first electric train 1925—Bombay V.T. to Kurla—16 kms.: first double decker train service (Bombay-Pune) inaugurated April 12, 1978; no. of rail bridges: 111,431; no. of level crossings.: 40,911; longest rail-cum-road bridge in Asia at Rajahmundry over river Godavari: 2.9 kms.; biggest marshalling yard: Mughalsarai—6,000 wagons a day; longest railway platform: Kharagpur—833 metres; total no. of seats: 2,074,106; no. of air-conditioned seats: 9,054; no. of first class seats: 159,885.

Railway Accidents: The number of train accidents—collisions, derailments, level crossing accidents and fires in trains—during 1964-65, 1970-71, 1975-76 and since 1978-79 onwards are tabulated below:

Year	Collisions	Derailments	Level Crossing accidents	Fires in trains	Total
1964-65	81	1,025	146	31	1,293
1970-71	59	648	121	12	840
1975-76	64	768	105	27	964
1978-79	55	778	86	12	931
1979-80	72	688	115	21	900
1980-81	69	816	90	29	1,013

Super Fast Trains: *The Jhelum Express; The Bombay-Howrah Mail; The Dadar-Varanasi Express; The Hazrat Qutub Express; The Frontier Mail* between Delhi and Bombay Central; *The Howrah-Kalka Mail* between Delhi and Howrah; *The Grand Trunk Express* between New Delhi and Madras Central; *The Deccan Queen* between Bombay V.T. and Pune; *The Brindavan Express* between Madras Central and Bangalore; *The Taj Express* between New Delhi and Agra Cantt.; *The Jayanti Janata Express* between Delhi and Muzaffarpur; *The Delux Express* between New Delhi and Howrah; *The Tamil Nadu Express* between New Delhi and Madras Central; *The Andhra Pradesh Express* between New Delhi and Hyderabad; *The New Delhi-Karnataka-Kerala Express; The Jammu Tawi-Bombay Central Express; The Pink City Express* between Delhi and Jaipur; *The Coromandal Express* between Howrah and Madras; *The Gomati Express* between New Delhi and Lucknow; *The Vaigai Express* between Madras, Egmore and Madurai; *The Geetanjali Express* between Bombay V.T. and Howrah; *The Steel Express* between Howrah and Tatanagar; *The Kovai Express* between Madras and Coimbatore; *The Howrah-Asansol Express; The Konarak Express* between Bhubaneswar and Secunderabad and *The Minar Express* between Bombay V.T. and Secunderabad.

As a result of modernisation of railways, the electrified route length has increased more than 14 times since 1950-51. Steam locomotives, the production of which was discontinued from 1972, are being gradually replaced by electric and diesel locomotives. Modernisation and improvements of signalling and telecommunication have also made much headway.

Railway locomotives are built in the Chittaranjan Locomotive Works (CLW), the Chittaranjan and Diesel Locomotive Works, Varanasi, both of which are administered by the Ministry of Railways. The bulk of the passenger service vehicles are manufactured in the Integral Coach Factory (ICF), Perambur, which is also administered by the Ministry of Railways. ICF's production is supplemented by the two public-sector undertakings Jessop and BEML; these three together meet the entire requirements of the railways.

The railways' requirements of wagons is met mostly by the industry which include units both in the public sector and the private sector. Three railway workshops supplement the production of these units. The following two tables broadly indicate the progress made by the railways in the last three decades and also its latest position:

Year	Route Length (Kilometres)			Running Track (Km.)	Passengers originating (Million)	Goods originating (Million Tonnes)
	Electrified	Non-electrified	Total			
1950-51	388	53,208	53,596	59,315	1,284	93
1960-61	748	55,499	56,247	63,602	1,594	156
1970-71	3,706	56,084	59,790	71,669	2,431	196
1980-81	5,345	55,895	61,240	75,860	3,612	220
1981-82	5,473	55,757	61,230	N.A.	3,704	246

Year	Number of Locomotives				Number of coaching vehicles*	Number of Wagons
	Steam	Diesel	Electric	Total		
1950-51	8,120	17	72	8,209	19,628	205,596
1960-61	10,312	181	131	10,624	28,439	307,907
1970-71	9,387	1,169	602	11,158	35,145	383,990
1980-81	7,469	2,403	1,036	10,908	38,327	400,946
1981-82	7,296	2,515	1,104	10,915	37,981	392,349

Note: *Includes electric multiple units and rail cars.
N.A. = Not Available.

In view of the vast developed network of the railways, the movement of goods by them has also undergone diversification. The railways, whose revenue earning goods traffic was only 93 million tonnes in 1950-51, are now the major carriers of such vital commodities as coal, foodgrains, cement, iron and steel, crude oil, etc. The following table shows the originating revenue traffic of the railways from 1981-82 to 1983-84:

Commodity	Tonnage originating (Millions)		
	1981-82	1982-83 (Revised Estimate)	1983-84 (Budget Estimate)
1. Coal	75.80	80.70	88.00
2. Raw materials to steel plants	24.06	24.00	26.00
3. Iron Ore for export	11.17	10.87	12.00
4. Cement	10.80	12.60	13.50
5. Foodgrains	21.51	22.50	22.00
6. P.O.L.	16.56	17.00	17.00
7. Other commodities	61.30	59.33	62.50
Total	221.20	227.00	241.00

There have also been a progressive increase in expenditure on the development as will be evident from the following table:

(Rs. in crores)

Item	1950-51	1960-61	1980-81	1981-82	1982-83@
Capital-at-charge	827.00	1,520 90	6,096.35	6,998.05	N.A.
Gross traffic receipts	263.01	456.80	2,624.02	3,538.24	4,375.79
Working expenses	210.48	358.24	2,536.46	3,182.05	3,891.28
Net traffic receipts	52.53	98.56	87.56	356.19	484.51
Miscellaneous transactions	4.97	10.69	39.93	46.87	48.85
Net revenue receipts	47.56	87.87	127.49*	403.06	533.36
Dividend	32.51	55.86	325.36	356.47	458.17
Surplus (+)/Deficit (−)	+15.05	+32.01	−197.87	+46.59	+75.19
Percentage of net revenue to the capital-at-charge	5.75	5.77	2.1	6.0	—
Operating ratio (%)	81.0	78.8	96.1	89.4	88.5

@Revised Estimate
N.A. = Not Available.
Note: *Dividend actually paid was Rs. 127.49 crores.

RAILWAY STATISTICS (1980-81)

		North Eastern	Central*	Northeast Frontier†	South Central*	Southern
Total Route Kilometerage		5,163.31	6,371.48	639.40	7,022.81	6,702.53
Broad Gauge (including electrified kms.)		218.41	5,331.34	2,886.15	3,328.83	2,080.07
Metre Gauge		4,944.90	—	87.48	3,693.98	4,474.00
Narrow Gauge		—	1,040.14	Nil	—	148.46
Kilometerage (electrified)		—	656.72	374.60	294.46	335.18
Kilometerage (under construction)		—	108.88	—	213.48	51.00
Capital at charge (Rs. million)		2,377.2	9,670.23	3,154.61	7,494.5	5,979.46
Gross Revenue (Rs. million)		955.5	7,839.46	904.50	4,159.7	1,920.32
Working Expenses (Rs. million)		1,381.0	5,610.66	1,601.884	3,425.8	2,365.69
Net Revenue (Rs. million)		−425.5	2,228.80	−696.84	733.9	445.37
No. of Locos	Steam	780	702.00	433	662	702
	Diesel/Electric	—	388.00	101	321	186
	Diesel/Hydraulic	—	90.00	—	4	42
	Electric	—	189.00	—	78	20
Electric Motor Coaches		—	246.00	—	—	81
No. of passenger coaches (including other coaching vehicles, but excluding brake yans)		3,629	3,237.00	2,288	2,815	4,994
Passenger carrying capacity	Air Conditioned (B.G.)	—	234.00	—	1,010	1,416
	Air Conditioned (M.G.)	78	—	—	—	54
	First Class (B.G.)	315	9,697	2,662	7,240	13,012
	First Class (M.G.)	5,985	—	4,464	3,772	7,867
	First Class (N.G.)	—	341	196	—	—
	Second Class (B.G.)	6,590	135,098	28,214	88,071	161,292
	Second Class (M.G.)	135,100	—	63,499	57,600	140,220
	Second Class (N.G.)	—	10,494	967	—	173
No. of Passengers Carried ('000)		1,888,370	966,931	60,644.8	205,060	338,113
No. of Goods Wagons (covered)		17.878	24,467	6,425	17,168	14,113
No. of Special Wagons		4,060	13,107	16	16,703	8,446
No. of Goods Wagons (open)		5,175	8,040	2,476	5,217	11,833
Tonnes Carried ('000)		8,814	66,033	7,359	35,629	24,192
No. of Staff		101,821	212,458	86,281	125,065	136,348

*Figures are for 1982-83.
†Figures are for 1981-82.

RAILWAY STATISTICS (1980-81)—*(Contd.)*

		Eastern	Western@@	Northern†	South Eastern†
Total Route Kilometerage		4,201.94	10,292.66	10,972.35	7,040.66
Broad Gauge (including electrified kms.)		4,070.29	3,343.96	7,421.44	5,561.64
Metre Gauge		—	5,849.22	3,291.35	—
Narrow Gauge		131.65	1,099.43	259.56	1,479.02
Kilometerage (electrified)		1,217,72	496.13	822.25	1,681.69
Kilometerage (under construction)		33.00	1,499.98	125.18	106.23
Capital at charge (Rs. million)		6,572.62	—	8,137.79	11,685.344
Gross Revenue (Rs. million)		2,891.71	N.A.	5,853.11	5,924.200
Working expenses (Rs. million)		3,513.61	—	5,055.66	4,305.32
Net Revenue (Rs. million)		–621.90	—	797.45	1,637.962
No. of Locos	Steam	908	867	1,288	646
	Diesel/Electric	59	316	284	255
	Diesel/Hydraulic	192	87	113	60
	Electric	239	100	186	304
Electric motor coaches		226	202	—	49
No. of passenger coaches (including other coaching vehicles, but excluding brake vans)		—	5,487	4,606	3,319*
Passenger carrying capacity	Air Conditioned (B.G.)	1,779	4,969	1,154	3,294
	Air Conditioned (M.G.)	—	243	36	—
	First Class (B.G.)	25,970	18,390	11,079	18,471
	First Class (M.G.)	—	7;661	2,237	—
	First Class (N.G.)	—	623	319	604
	Second Class (B.G.)	327,190	136,406	193,271	182,237
	Second Class (M.G.)	—	115,410	16,331	—
	Second Class (N.G.)	2,979	7,848	3,936	11,328
No. of Passengers carried ('000)		501.499	NA	406,628	177,739
No. of Goods wagons (covered)		30,302	38,011	@27,863	16,208
No. of Special wagons		22,222	12,909	@18,694	2,341
No. of Goods wagons (open)		11,980	19,283	10,002	32,198
Tonnes carried ('000)		64.209	—	64,136	92,619
No. of staff		224,986	NA	232,198	200,094

†Figures are for 1981-82. *Including EMU motor coaches.

@Revised. @@Figures are for 1982-83.

ROADS

ROADS are the vital connecting arteries of the nation. They have an important role to play in the development of the economy and, in a way, promote cultural and social integration. In view of their importance, the Government of India enacted the National Highways Act in 1956 and took over the entire financial responsibility of building a network of key primary highways which it termed National Highways. India today has the largest network of roads in Asia.

Besides the national highways, which come under central control, there are feeder or secondary road systems which cover State highways and district roads. The third division covers rural roads which are also maintained by State governments. The Central government helps in the development of some selected roads in the states.

In 1947 the total National Highways system consisted of only 21,440 kms. But by 1981 another 4,380 kms. were added by way of missing road links and bridges taking the present total length of National Highways to 31,358 kms.

A step for the smooth passage of inter-state road transport was taken when the Motor Vehicles (Amendment) Act was passed in 1956 and an Inter-State Transport Commission was constituted in 1958.

The hitherto inaccessible locations on the north and north-eastern border areas were developed and integrated through well-surfaced arterial routes under the control of the Border Roads Organisation (BRO) which was set up in 1960.

The Sixth Plan envisages a Minimum Needs Programme to link all villages with a population of 1,500 and above with all-weather roads.

Length of Roads in 1914: 273,000 kms. Length of roads as on April 1982; 1,734,000 kms. (of which surfaced roads: 724,000 kms. and unsurfaced roads: 1,010,000 kms.).

National Highways: The Union Government is responsible for the system of national highways formed in 1947. There are 64 roads classified as National Highways measuring a total length of 31,358 kms. These are (1) Delhi-Amritsar, (2) Jullunder-Srinagar-Uri, (3) Batote-Doda-Kishtwar, (4) Delhi-Calcutta, (5) Agra-Bombay, (6) Thane-Pune-Bangalore-Madras, (7) Belgaum-Ponda-Panaji, (8) Baharagora-Cuttack-Bhubaneshwar-Vijayawada-Madras, (9) Haridaspur-Paradip Port, (10) Dhule-Nagpur-Sambalpur-Bahara-Gora-Calcutta, (11) Varanasi-Mangawan-Jabalpur-Nagpur-Hyderabad-Kurnool-Bangalore-Salem-Madurai-Kanyakumari, (12) Palayankottai-Tuticorin, (13) Delhi-Jaipur-Udaipur-Ahmedabad-Baroda-Bombay, (14) Ahmedabad-Limbdi-Morvi-Kandla, (15) Bamanbore-Rajkot-Porbunder, (16) Chiloda-Gandhinagar-Surkhej, (17) Pune-Sholapur-Hyderabad-Vijayawada, (18) Delhi-Hissar-Fazilka, (19) Agra-Bharatpur-Jaipur-Bikaner, (20) Jabalpur-Bhopal-Bisora, (21) Sholapur-

Chitradurga, (22) Pathankot-Bhatinda-Ganganagar-Bikaner-Jaisalmer-Barmer-Samakhiali, (23) Panvel-Mahad-Panaji-Karwar-Mangalore-Cannanore-Calicut-Edapalli, (24) Cortalim-Mormugao, (25) Chandigarh-Rupar-Bilaspur-Mandi-Kulu-Manali, (26) Ambala-Kalka-Simla-Narkanda-Rampur-Chini, (27) Chas-Ranchi-Rourkela-Talcher-Nuatta, (28) Delhi-Bareilly-Lucknow, (29) Lucknow-Kanpur-Jhansi--Shivpuri, (30) Jhansi-Lakhadon, (31) Allahabad-Mangawan, (32) Barauni-Muzaffarpur-Pipra-Gorakhpur-Lucknow, (33) Pipra-Sangauli-Raxaul, (34) Gorakhpur-Ghazipur-Varanasi, (35) Mohania-Patna-Bakhtiarpur, (36) Barni-Bakhtiarpur-Mokameh-Purnea-Dalkhota-Siliguri-Sivok-Cooch Bihar-North Salmera-Pandu, (37) Sivok-Gangtok, (38) North Salmera-River Brahmaputra near Goalpara, (39) Jamshedpur-Purulia-Dhanbad-Gobindpur, (40) Barhi-Ranchi-Chandil-Bhargora, (41) Dalkola-Behrampore-Baraset-Calcutta, (42) Baraset-Bongaon, (43) Nowgong-Dabaka-Dimapur, (44) Pancharatna-Gauhati-Jorabat-Kamargaon-Makum-Caikhoagat, (45) Nadum-Lado-Lokhapani, (46) Mumligarh-Imphal-Palal-Morah, (47) Jorhat-Shillong-Dawki, (48)Kalaghat-Haldiaport, (49) Sambalpur-Angul-Cuttack, (50) Raipur-Vizianagaram, (51) Shillong-Passi-Badarpur-Agartala, (52) Madras-Tiruchirappalli-Dindigul, (53) Krishnagiri-Ranipet, (54) Salem-Coimbatore-Trichur-Ernakulam-Trivandrum-Kanyakumari, (55) Nalamangala-Hassan-Mangalore, (56) Madurai-Dhanushkhodi, (57) Nasik-Pune, (58) Lateral road in West Bengal and Assam, (59) (Assam) Paikan-Tura-Dalu (Meghalaya), (60) (Assam) Baihata-Tezpur-Passighat-Saikhoaghat (Arunachal Pradesh), (61) (Arunachal Pradesh) Itanagar-Bander Dewa (Assam), (62) (Assam) Badarpur-Silchal-Imphal (Manipur), (63) (Assam) Silchar-Aizawal-Lunglei (Mizoram), (64) Jaipur-Kota-Biaora (Bhopal).

The total expected physical achievements in the National Highways system upto end of 1982-83 are: (i) construction of missing links 20 kms., (ii) improvement of low grade sections, sixth plan schemes completed, with no spill over; (iii) widening and strengthening of single lane sections into two lanes 650 kms.; (iv) widening to two lanes only 350 kms.; (v) strengthening of existing double lane pavements 375 kms.; (vi) widening to 4/6 lanes 20 kms.; (vii) construction of by-passes 5 nos.; (viii) construction of missing major bridges 2 nos.; (ix) reconstruction/widening of weak, major bridges 18 nos.

Sixth Plan: The Sixth Plan has targeted an outlay of Rs.8,300 million for central schemes, Rs.23,988.7 million for States schemes and Rs.2,100.9 million for union territories schemes, aggregating to an outlay of Rs.34,389.6 million. See Table II also.

Statewise length of National Highways (in kms): Andhra Pradesh: 2,299; Assam: 2,278; Bihar: 2,117; Gujarat: 1,398; Haryana: 681; Himachal Pradesh: 630; Jammu & Kashmir: 648; Karnataka: 1,996; Kerala: 784; Madhya Pradesh: 2,736; Maharashtra: 2,861; Manipur: 431; Meghalaya: 472; Nagaland: 113; Orissa: 1,649; Punjab: 913; Rajasthan: 2,557; Sikkim: 62; Tamil Nadu: 1,749; Tripura: 200; Uttar Pradesh: 2,328; West Bengal: 1,561; *Union Territories:* Arunachal Pradesh: 330; Chandigarh: 24; Delhi: 72; Goa, Daman & Diu: 229; Mizoram: 240.

States' Roads: The roads maintained by the States are classified as State Highways, PWD roads, *Zilla Parishad* roads, Village *Panchayat* roads, Community Development/*Panchayat Samiti* Roads. As on April 1980, the States Highways measured (in kms.) 95,923; other PWD roads 415,350; *Zilla Parishad* roads 266,301; Village *Panchayat* roads 264,001; and CD/*Panchayat Samiti* roads 151,478.

Urban roads under the jurisdiction of Municipal Corporations and other local bodies were 114,223 kms.

The Border Roads Organisation: Set up in 1960, BRO builds and maintains roads in remote, and hilly border areas. The cumulative progress achieved by Border Roads Organisation till end of December 1982: Construction and improvement of new and existing roads 14,245 kms.; surfacing (soling, metalling or black-topping) 10,977 kms.

Indian Road Construction Corporation: This corporation was set up on 20th December, 1976 taking up and executing road and bridge construction works within and outside India. The IRCC is now having in hand total workload aggregating to Rs. 3,860 million (3,587.9 million in Libya and Rs. 273.4 million in Iraq). These are contracts for construction of roads, bridges, and culverts to be completed during the next four years.

World's Highest Road: The road from Manali in Himachal Pradesh and Leh in Kashmir runs at an average altitude of 4,267 metres (14,000 ft.) and negotiates four very high passes varying from 4,876 metres (16,000 ft.) to 5,486 metres (18,000 ft.).

Revenue from Motor Transport: During 1982-83, Central and State Governments collected by way of taxes Rs. 30,397.2 million (Central Rs. 17,658.5 million and States Rs. 12,738.7 million) from motor vehicles.

Road Traffic: The number of Motor vehicles in use in India is shown in a table in the Chapter on "Automobile Industry".

TABLE I
Road Traffic

	Volume of road traffic	Percentage share of road in total road and rail traffic
Goods Traffic		
(in billion tonne kms.)		
1950-51	5.5	11
1955-56	8.9	13
1960-61	35.0	29
1965-66	55.0	32
1970-71	66.0	34
1976-77	76.0	33
1977-78	77.0	32
1981-82	85.0	32.79
Passenger Traffic		
(in billion passenger kms.)		
1950-51	23	26
1955-56	31	33
1960-61	57	42
1965-66	95	50
1970-71	169	59
1976-77	235	59
1977-78	250	59
1981-82	300	57

Public Sector Passenger Transport: There are now 51 State undertakings providing passenger transport service. As on 1981 they employed a capital of about Rs. 9,075.96 million. With a fleet of 69,550 vehicles under State undertakings, 60 per cent of the buses in the country are in the Public Sector.

TABLE II
Progress in Five Year Plans

	Surfaced	Unsurfaced	Allocation
	(Figures in kms.)		(Rs. in million)
First Plan*	183,023	3,155,321	1,344.7
Second Plan	262,700	464,027	2,458.0
Third Plan	342,798	720,835	4,511.2
Fourth Plan	480,705	712,448	8,710.0
Fifth Plan	532,492	842,497	13,470.0
Sixth Plan	—	—	34,389.6

*Excludes Municipal, Forest, Irrigation & M.E.S. Roads.

Development Expenditure on Roads: The current year's budget provision for Plan Schemes and revised estimates for 1982-83 (in brackets) show the trend of expenditure on Central road programmes respectively. Allocations for national highways: Rs. 1,897.6 million (Rs. 1,782.8 million). Roads of inter-state importance: Rs 47 million (Rs. 35 million); Border Roads: Rs. 80 million (Rs. 55 million); Planning and Research: Rs. 7.9 million (Rs. 6.07 million); Total: Rs. 2,032.5 million (Rs. 1,879.5 million).

TABLE III

Selected Data on Roads in India

(Thousand kms.)

	Main national roads	Secondary roads	Other roads	Total	Percentage paved	Density of total-network in kms. per sq. km.
1970	23.8	161.3	777.9	963.0	34.7	0.295
1974	28.7	229.0	974.6	1,232.3	35.0	0.375
1979	29.3	485.8	989.0	1,604.1	38.8	0.487
1980	29.4	511.3	993.5	1,534.2	42.8	0.466

TABLE IV

Total Road Length in India — 1979-80 (P)

(In kms.)

State/U.T.	National Highways	State Highways	Other PWD Roads	*Zilla Parishad* Roads	Village *Panchayat* Roads	CD/ *Panchayat Samiti* Roads	Urban Roads	Project Roads	Total
1	2	3	4	5	6	7	8	9	10
ALL INDIA	**29,447**	**95,923**	**415,350**	**266,301**	**264,001**	**151,478**	**114,223**	**197,542**	**1,534,265**
States									
Andhra Pradesh	2,349	5,443	27,926	32,671	—	33,539	5,178	10,103	117,209
Assam	1,455	2,166	19,389	—	—	575	2,655	4,651	30,891
Bihar	2,188	4,191	15,266	47,010	—	—	2,149	14,158	84,962
Gujarat	1,435	9,097	2,323	32,253	—	—	7,901	2,021	55,030
Haryana	655	3,135	15,741	—	—	—	1,561	528	21,620
Himachal Pradesh	589	3,415	12,065	—	—	389	393	1,916	18,767
Jammu & Kashmir	593	688	7,501	—	—	938	769	1,647	12,136
Karnataka	1,968	7,802	54,733	—	4,597	25,063	6,644	7,973	108,780
Kerala	837	2,028	14,636	—	63,264	5,917	5,064	2,398	94,144
Madhya Pradesh	2,681	11,487	46,499	—	9,963	—	5,081	36,207	111,918
Maharashtra	2,954	18,833	10,996	105,830	—	—	12,079	21,307	171,999
Manipur	212	480	2,653	—	1,164	605	127	288	5,529
Meghalaya	334	—	3,972	—	—	—	89	309	4,704
Nagaland	105	1,114	3,797	—	—	873	79	390	6,358
Orissa	1,631	2,834	13,517	—	61,560	24,749	5,910	7,871	118,072
Punjab	977	1,900	28,985	—	—	—	3,160	10,472	45,494
Rajasthan	2,110	7,666	30,623	—	—	13,070	5,732	9,842	69,043
Sikkim	41	—	996	—	—	—	124	47	1,208
Tamil Nadu	1,865	1,814	31,742	—	36,174	30,320	5,977	5,827	113,719
Tripura	198	136	3,969	—	510	1,966	175	768	7,722
Uttar Pradesh	2,474	7,966	48,157	24,432	—	4,168	20,657	51,726	159,580
West Bengal	1,471	3,167	12,270	24,105	84,336	—	9,268	5,540	140,157
Union Territories									
A & N Islands	—	261	327	—	—	—	9	19	616
Arunachal Pradesh	—	—	3,708	—	822	6,187	4	1,356	12,077
Chandigarh	14	—	—	—	—	4	111	—	129
D & N Haveli	—	—	216	—	—	—	—	—	216
Delhi	87	—	213	—	—	39	12,862	—	13,201
Goa, Daman & Diu	224	284	1,813	—	1,611	1,739	226	95	5,992
Lakshadweep	—	—	—	—	—	—	2	—	2
Mizoram	—	—	884	—	—	—	7	—	891
Pondicherry	—	36	433	—	—	1,337	230	83	2,119

(P) Provisional

PHYSIOGRAPHY

INDIA is a vast complex country. Reaching from $8^{0}4'$ to $37^{0}6'$ North latitude, and from $68^{0}7'$ to $97^{0}25'$ East longitude, it measures some 3,220 kms. from south to north and some 2,980 kms. from west to east and covers an area of 3,276,141 sq. kms. (including Sikkim).

Physical Features: Its physical features fall into three well-marked regions, each of them vast in dimensions: first, the great Himalayan mountain system; secondly, the Indo-Gangetic plain; and thirdly, the plateaux of peninsular India, the Deccan.

The Himalayan system lies between the plateau of Tibet and the Indo-Gangetic Plain, and consists essentially of a complex series of young fold-mountains arranged in more or less parallel ranges which now combine in a mountain-knot, then divide to leave room for intermontane valleys like those of Kashmir and Kulu. The highest range, the Great Himalaya, consists of a whole series of giant peaks like Nanda Devi (24,645 feet), separated by deep chasms cut by rivers and glaciers and, occasionally, by high passes over which run the immemorial trade-routes between India and Tibet. South of the Great Himalaya lie other high ranges, and nearest to the plains there are the Sivaliks, the youngest member of the series geologically, which present a massive rampart to the south, broken only by valleys through which run great snow-fed rivers like the Sutlej (a tributary of the Indus), the Yamuna and Kosi (tributaries of the Ganga) and the Ganga itself. At the eastern-most end of the Indian Himalaya the ranges are breached in a spectacular gorge by the Brahmaputra, which rises in Tibet. East and south of the Brahmaputra gorge, the fold-ranges trend generally southward, and form the wild hilly country of Nagaland and other areas on the frontiers of India and Burma.

The Indo-Gangetic Plain occupies what must once have been a hollow between the Himalayas and the old-rock plateaux of the peninsula; a hollow that has been infilled by alluvium brought down by the great Himalayan rivers and, to a lesser extent, by those flowing into it from the Deccan, like the Chambal and Sone. If one includes the level ground along the Brahmaputra in Assam, the Plain as a whole is over 2,400 kms. long, and generally 200-300 kms. wide (rather narrow in Assam). Here is one of the world's really large Plains. To the casual observer it is one great monotony, but actually it has considerable variety, of two kinds: first, the gradual transition from the dune-covered desert-plain of Rajasthan, through the rich, cultivated alluvium of Uttar Pradesh to the swampy Sundarbans along the weaward edge of the Bengal delta; and, secondly, more intimate local variety—for example, the contrast of deeply-gullied terraces of old alluvium and of low-lying flood-plain where the Chambal runs into the Yamuna below Agra.

The dominant landform in the Deccan (that is, in peninsular India) is the plateau, the great stretch of rolling country at some considerable elevation above sea-level. Such is the Maidan of Karnataka or the black-earth plateau of Malwa (or the detached plateau which forms Meghalaya). Most of these plateaux, indeed, almost all of the Deccan, are built of hard old crystalline rock, with here and there ancient sediments. Here lies most of India's mineral wealth, especially iron and manganese ore (with coal in down-faulted basins in the north-east Deccan). In Maharashtra there was a great outpouring of basalt which overlies the crystalline base and gives rise to characteristic stepped landforms. Across the plateaux roll the great east-flowing Deccan rivers the Mahanadi, Godavari, Krishna and Kaveri, with their tributaries. Each forms a notable delta where it reaches the sea. The Narmada and Tapti, on the other hand, flow westward to the Gulf of Cambay north of Bombay. The great plateaux end in massive mural scarps like those overlooking the Indo-Gangetic Plains or the even more impressive Western Ghats (the so-called Eastern Ghats are puny, broken things in comparison). There are also scarps with the appearance of mountain ranges where one plateau-level descends to another within the Deccan.

Climate: The vastness of India and the variety of its relief are reflected in the wide range of climatic types to be found within it. In the Plains, the desert of Rajasthan contrasts with the humidity of Bengal. The winter snows of the Himalaya contrast with the nearly equatorial heat of Kerala and Tamil Nadu. The last two contrast with each other, for Kerala is wet, with a short dry season, and Tamil Nadu is dry, with a long dry season when much of India is having rain, during the south-west monsoon.

If one seeks a unifying factor in the climate of India, it is to be found in the dominance of the monsoon; that is, in a great seasonal reversal of wind and weather. For most of India except Tamil Nadu, the south-west monsoon of about June to September is a period of rain, very heavy in Bombay and Calcutta, torrentially heavy in Meghalaya (where Cherrapunji has the reputation of being the earth's wettest spot), light by the time Delhi is reached, even lighter (and highly variable) in the desert. The north-east monsoon of 'winter' is a period of dry weather over most of India except Tamil Nadu, which then has its rainy season; and of cold weather, becoming hot as the south-west monsoon season approaches, in north India.

Vegetation and Soils: Most of India must once, it is thought, have been covered with forest whose nature reflected principally variations in rainfall (or of altitude in the Himalaya): forest that ranged from tropical rain forest in Kerala through tropical moist deciduous forest in the eastern Plains and north-east Deccan to thorn scrub in semi-arid interior Maharashtra. Forest reserves to some extent preserve this pristine vegetation, though usually in a form modified by man, acting as a destructive agent (for instance, turning thorn forest to poor savana-jungle) or as a constructive agent (replacing 'natural' vegetation with pure strands of desired species like sal or sandalwood). In the Plains, the east coast deltas and western coastal strips, in Tamil Nadu and much of Maharashtra, little 'natural' vegetation of any sort survives.

Human activity over the centuries (indeed, for millennia) has replaced 'natural' vegetation with crops: the *kharif* rice and *rabi* wheat of much of the Plains (and, of course, other crops beside, like sugar-cane and mustard); the jowar and bajra of the drier parts of the Deccan, except where irrigation has brought in wheat, or rice, or sugarcane; the tea of Assam; the tea and coffee of Kerala and of the hills north of it; the coconut of the coastal fringes of the South. So, too, the teeming wild life of India, dependent as it is on forest cover, has been fighting a losing battle against man. There is now concern over the survival of a number of species, notably the lion (confined to the Gir forest in Saurashtra), the tiger, the elephant and the rhinoceros. But a number of species of deer are still relatively common, and bird life is generally abundant.

Population (also see Chapter on Population): India is the world's second most populous country. The 1981 Census indicated the total population was 683.81 million, an increase of 24.75 per cent over 1971 Census, as against 547.9 million in 1971 with 24.8 per cent increase over 1961 Census figures. All the States/Territories north of the Vindhyas account for more than 60 per cent of the entire population. There are great variations between one region and another and pressure of population on the land has become excessive, especially in the Plains, the east coast deltas and Tamil Nadu.

STATES, TERRITORIES

The country is divided into 22 States and 9 Union Territories These are (with the capital towns in brackets):

Andhra Pradesh (Hyderabad), Assam (Dispur), Bihar (Patna), Gujarat (Gandhinagar), Haryana (Chandigarh*), Himachal Pradesh (Simla), Jammu and Kashmir (Srinagar), Kerala (Trivandrum), Madhya Pradesh (Bhopal), Maharashtra (Bombay), Manipur (Imphal), Meghalaya (Shillong), Karnataka (Bangalore), Nagaland (Kohima), Orissa (Bhubaneshwar), Punjab (Chandigarh*), Rajasthan (Jaipur), Sikkim (Gangtok), Tamil Nadu (Madras), Tripura (Agartala), Uttar Pradesh (Lucknow), West Bengal (Calcutta).

The Andaman and Nicobar Islands (Port Blair), Arunachal Pradesh (Yachuli), Chandigarh (Chandigarh), Dadra and Nagar Haveli (Silvasa), Delhi (Delhi), Goa, Diu and Daman (Panaji), Lakshadweep (Kavaratty Island), Mizoram (Aizawl), Pondicherry (Pondicherry).

SOME BASIC FACTS

Date of Independence 15-8-1947.
Became a Republic on 26-1-1950
Area: 3,276,141 sq. kms.
Length: 3,119 kms. (North-South).
Breadth: 2,977 kms. (East-West).

Land Frontier: 15,168 kms.; Frontiers with Pakistan: 2,966 kms.; with Bangla Desh: 3,950 kms.; with China: 3,862. kms.; with Nepal: 4,390 kms.

Coastline: 5,686 kms.

Ocean Zone: 200 nautical miles.

Important Rivers: Ganges, Yamuna, Luni, Ghaghara, Kosi Godavari, Chambal, Betwa, Sone, Brahmaputra, Krishna, Mahanadi, Narmada, Kaveri, Tapti and Pennar.
Minimum Rainfall: Thar Desert 101.60 mm (4 inches).
Maximum Rainfall: Cherrapunji 10,795 mm (425 inches)
Minimum Temperature: Kashmir 9.4^{0}C (49^{0}F)
Maximum Temperature: Rajasthan 48.9^{0}C (120^{0}F.
Population: 683,810.051 (1981 Census).
Growth Rate: 24.75 per cent (1981).
Expectancy of Life at Birth: 54 years.
Death Rate: 14.8 per 1,000.
Birth Rate: 36 per 1,000.
Infant Mortality Rate: Male 120, Female 113.
Most Populated State: Uttar Pradesh 110,858,019.
Largest Populated City: Calcutta 9,165,650.
Literacy Rate: 34.8 per cent.
Most Literate State: Kerala (69.2 per cent).
Largest State: Madhya Pradesh 443,459 sq. kms.
Largest Union Territory: Arunachal Pradesh 83,578 sq. kms.
No. of States: 22.
No. of Union Territories: 9.
No. of Districts: 361.
No. of Villages: 596,000 (approximately).
No. of Village Panchayats: 221,727.
Languages: 15 (provided by the Constitution). Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, Urdu.
Dialects Spoken: 1,652.

*The Union Government announced on January 29, 1970 its decision to transfer the capital project area of Chandigarh to Punjab within the next five years. Pending the construction of a new capital for Haryana, Chandigarh will remain a Union Territory.

METEOROLOGY

METEOROLOGY is the science of study of weather and climate. Atmospheric properties like temperature, sub-divisional rainfall etc. are measured by various meteorological instruments.

In India rainfall is not evenly distributed in all parts and is very erratic. India has a desert in Rajasthan, but it has also one area noted for the highest rainfall in the world at Cherrapunji in Assam. The temperature and weather conditions vary in different parts of the country.

The Indian Meteorological Department recognises four seasons—cold season or winter (November - February), hot season or summer (March - May), rainy season or monsoon (June - October) and the retreating period of the South-West Monsoon (October - November), which is the most pleasant season.

The average monthly temperature, the average monthly rainfall and sub-divisional rainfall are given below:

AVERAGE MONTHLY TEMPERATURE ^{0}C FOR DIFFERENT STATIONS

Name of Station	Altitude in Metres	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Agra ..	169	14.8	18.0	23.8	29.7	34.5	35.0	30.9	29.3	28.9	26.2	20.6	16.1
Ahmedabad ..	55	20.3	22.7	27.2	31.3	33.5	32.7	29.5	28.2	28.7	28.4	24.5	21.1
Allahabad ..	98	16.4	19.1	25.1	30.7	34.7	34.3	30.1	29.1	29.0	26.5	21.1	17.1
Bangalore ..	921	20.9	23.1	25.7	27.3	26.9	24.3	23.2	23.3	23.3	23.2	21.7	20.5
Bombay ..	11	24.3	24.9	26.9	28.7	30.1	29.1	27.5	27.1	27.4	28.3	27.5	25.9
Calcutta ..	6	20.2	23.0	27.9	30.7	31.1	30.4	29.1	29.1	29.2	27.9	23.9	20.6
Cherrapunji ..	1,313	11.7	13.7	16.7	18.5	19.2	20.1	20.3	20.5	20.5	19.1	15.8	12.9
Darjeeling ..	2,127	6.1	7.7	11.3	14.4	15.7	17.0	17.6	17.6	17.3	15.1	11.3	8.1
Dehra Dun ..	682	12.6	14.8	19.4	24.5	28.9	29.5	26.7	26.1	25.5	22.1	17.5	13.9
Gauhati ..	54	17.5	19.5	23.3	25.9	26.9	28.1	28.9	29.0	28.7	26.3	22.3	18.7
Hyderabad ..	545	21.6	23.9	27.4	30.3	32.5	29.1	26.1	25.8	25.7	25.1	22.3	20.6
Indore ..	567	17.9	19.9	24.5	29.1	32.3	30.1	26.1	25.1	25.1	24.1	20.5	18.3
Jaipur ..	390	15.1	18.1	23.2	28.7	33.2	33.3	29.9	28.1	28.1	25.7	20.5	16.7
Jammu ..	366	13.3	15.9	20.6	26.8	32.4	34.1	30.7	29.1	28.6	25.4	19.8	15.2
Jamshedpur ..	129	19.3	21.7	26.7	31.2	33.4	31.7	28.9	28.7	28.7	26.9	22.3	19.2

AVERAGE MONTHLY TEMPERATURE °C FOR DIFFERENT STATIONS—*(Contd.)*

Name of Station	Altitude in Metres	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Kangra ..	Not available												
Kodaikanal ..	2,343	12.5	13.3	14.6	15.7	16.5	15.3	14.3	14.5	14.5	13.9	12.9	12.5
Lucknow ..	111	16.1	18.9	24.6	30.1	33.9	33.7	30.1	29.3	29.1	26.3	21.0	16.9
Madras ..	16	24.5	25.9	27.9	30.5	32.7	32.5	30.7	30.1	29.7	28.1	25.9	24.6
Mahableshwar ..	1,382	18.9	20.5	23.1	24.1	23.5	19.4	17.9	17.6	18.0	20.1	19.5	18.7
Matheran ..	Not available												
Mussoorie ..	2,042	6.3	7.8	11.7	16.5	19.9	20.3	18.3	17.9	17.1	14.9	11.6	8.5
Mysore ..	767	22.3	24.7	26.9	27.7	26.9	24.5	23.5	23.7	24.0	24.0	22.9	21.7
New Delhi ..	216	14.3	16.9	22.7	28.6	33.5	34.3	31.3	29.9	29.3	25.9	20.3	15.7
Ootacamund ..	2,249	12.5	13.5	15,1	16.1	16.5	14.5	13.7	14.1	14.3	14.3	13.6	13.0
Panaji ..	57	25.5	25.9	27.5	29.0	29.8	27.5	26.4	26.5	26.5	27.3	27.6	26.8
Patna ..	53	17.3	19.9	25.7	30.5	32.5	31.9	29.8	29.3	29.3	27.5	22.5	18.3
Pune ..	559	21.3	23.1	26.5	29.3	29.9	27.5	24.9	24.6	25.0	25.5	22.9	21.1
Ranikhet ..	Not available												
Shillong ..	1,500	9.5	11.7	16.0	18.9	19.6	20.5	21.1	20.9	20.1	17.3	13.3	10.5
Simla ..	2,202	5.2	6.7	10.6	15.2	19.2	20.3	18.3	17.7	16.9	14.3	11.1	7.7
Srinagar ..	1,586	1.1	3.5	8.5	13.3	17.9	21.7	24.6	23.9	20.5	14.1	7.7	3.5
Trivandrum ..	64	26.8	27.3	28.3	28.7	28.3	26.5	26.1	26.3	26.6	26.7	26.6	26.7
Udaipur ..	582	16.0	18.7	23.7	28.1	31.7	30.6	27.3	26.1	26.5	25.5	20.1	17.3
Vadodara ..	34	20.5	22.5	26.6	30.8	33.4	31.1	28.9	28.1	28.3	27.5	23.9	21.2
Varanasi ..	76	16.5	19.3	25.3	30.5	34.3	33.7	30.0	29.1	29.1	26.6	21.0	17.1

AVERAGE MONTHLY RAINFALL (MILLIMETRES) FOR DIFFERENT STATIONS

Name of Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Agra ..	16.2	8.8	10.9	5.3	10.0	60.0	210.2	263.2	151.5	23.5	2.1	3.7
Ahmedabad ..	3.9	0.3	0.9	1.9	4.5	100.0	316.3	213.3	162.8	13.1	5.4	0.7
Allahabad ..	20.2	22.2	14.3	4.8	8.2	101.7	274.8	333.1	195.1	39.7	6.9	6.3
Bangalore ..	3.3	10.2	6.1	45.7	116.5	80.1	116.6	147.1	142.7	184.9	54.3	16.2
Bombay ..	2.0	1.1	0.4	2.8	16.0	520.3	709.5	439.3	297.0	88.0	20.6	2.2
Calcutta ..	13.8	24.2	26.5	42.7	120.6	259.1	300.6	306.3	289.7	160.2	34.9	3.2
Cherrapunji ..	19.8	37.3	178.9	605.2	1,705.1	2,921.5	2,456.7	1,827.5	1,167.7	447.4	46.7	4.9
Darjeeling ..	21.7	26.7	52.4	109.0	187.1	522.3	712.9	572.5	418.5	116.1	14.2	5.0
Dehra Dun ..	62.2	59.4	39.7	17.4	41.7	185.9	720.8	764.9	326.7	70.8	5.1	19.1
Gauhati ..	11.4	18.3	53.4	125.9	273.6	293.4	301.5	263.0	190.1	90.1	11.5	5.0
Hyderabad ..	1.7	11.4	13.4	24.1	30.0	107.4	165.0	146.9	163.3	70.8	24.9	5.5
Indore ..	8.4	1.1	3.5	3.5	13.2	147.1	316.0	266.5	220.9	48.4	22.1	2.7
Jaipur ..	14.0	8.4	8.6	4.2	10.0	54.0	193.2	239.0	89.8	19.3	3.4	4.2
Jammu ..	71.3	59.4	57.0	25.2	17.0	60.9	320.7	319.1	150.8	29.5	7.9	29.5
Jamshedpur ..	14.1	28.3	23.8	25.4	68.8	217.5	347.2	356.1	215.4	76.2	16.7	1.8
Kangra ..	78.5	73.1	70.6	36.6	39.9	108.2	578.4	692.7	218.4	19.1	8.1	37.1
Kodaikanal ..	62.7	31.6	64.3	166.1	157.4	103.8	117.4	162.8	160.5	250.3	274.0	121.2
Lucknow ..	23.7	17.2	9.2	6.4	11.7	93.9	290.0	301.8	181.7	40.3	1.4	6.1
Madras ..	23.8	6.8	15.1	24.7	51.7	52.6	83.5	124.3	118.0	267.0	308.7	139.1
Mahableshwar ..	3.1	1.8	6.8	29.6	53.4	898.3	2,521.3	1,714.7	709.2	179.3	56.7	6.1
Matheran ..	2.0	1.5	2.3	4.1	25.1	773.9	2,035.6	1,461.0	658.6	168.1	31.5	3.8
Mussoorie ..	66.4	66.9	63.5	29.5	45.1	188.5	726.5	754.7	323.2	64.8	7.7	31.3
Mysore ..	2.8	5.5	12.0	67.6	156.9	60.5	71.9	80.1	116.3	179.9	66.6	14.7
New Delhi ..	24.9	21.8	16.5	6.8	7.9	65.0	211.1	172.9	149.7	31.2	1.2	5.2
Ootacamund ..	25.8	12.0	29.5	108.5	172.6	139.2	176.6	128.2	109.7	213.3	126.5	59.1
Panaji ..	2.3	0	4.2	16.9	17.6	580.1	892.1	341.1	276.6	122.3	20.4	37.5
Patna ..	21.1	20.2	6.7	8.2	28.3	139.0	265.8	307.1	242.5	62.8	5.7	2.4

AVERAGE MONTHLY RAINFALL (MILLIMETRES) FOR DIFFERENT STATIONS (Contd.)

Name of Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Pune ..	1.9	0.3	3.1	17.6	34.7	102.8	186.8	106.4	127.3	91.9	37.0	4.9
Ranikhet ..	54.1	62.0	46.2	31.0	50.0	144.0	331.5	344.4	165.9	33.5	7.4	22.9
Shillong ..	15.2	28.5	59.4	136.4	325.4	544.6	394.9	334.6	314.9	220.2	34.9	6.3
Simla ..	65.2	47.6	58.1	37.6	53.7	147.5	414.5	385.4	195.2	45.4	6.7	23.7
Srinagar ..	72.8	72.3	104.1	78.1	63.4	35.6	61.0	62.8	31.8	28.7	17.5	35.9
Trivandrum ..	20.1	20.3	43.5	122.1	248.6	331.2	215.4	164.0	122.9	271.2	206.9	73.1
Udaipur ..	9.0	4.4	3.5	2.6	4.6	87.0	197.3	206.9	120.4	16.1	5.7	2.5
Vadodara ..	2.0	2.4	0.7	2.9	4.1	114.8	365.8	263.5	185.5	34.5	9.0	0.2
Varanasi ..	25.0	21.9	11.9	3.9	12.3	91.9	306.2	342.2	225.7	59.5	9.6	3.3

STATEMENT OF SUB-DIVISIONAL MEANS OF RAINFALL (MILLIMETRES) DURING 1980 AND 1981.

Sub-divisions	June to September 1980				June to September 1981			
	Actual	Normal	Dep. from normal	Percentage Dep. from normal	Actual	Normal	Dep. from normal	Percentage Dep from normal
Andaman & Nicobar Islands	1803	1597	+206	+ 13	1631	1597	+ 34	+ 2
Arunachal Pradesh	2180	2143	+ 37	+ 2	2784	2366	+418	+ 18
Assam & Meghalaya	1479	1443	+ 36	+ 2	1414	1511	− 97	− 6
Nagaland, Manipur, Mizoram & Tripura	907	1256	−349	− 28	899	1256	−357	− 28
Sub-Himalayan West Bengal and Sikkim	2113	2131	− 18	− 1	2003	2131	−128	− 6
Gangetic West Bengal	1173	1108	+ 65	+ 6	1400	1112	+288	+ 26
Orissa	1292	1149	+143	+ 12	1050	1141	− 91	− 8
Bihar Plateau	1113	1105	+ 8	+ 1	1091	1104	− 13	− 1
Bihar Plains	1141	1041	+100	+ 9	1025	1057	− 32	− 3
East Uttar Pradesh	1515	916	+599	+ 65	1016	908	+108	+ 12
Plains of West Uttar Pradesh	897	793	+104	+ 13	664	789	−125	− 16
Hills of West Uttar Pradesh	1434	1602	−168	− 11	1241	1520	−279	− 18
Haryana, Delhi & Chandigarh*	464	457	+ 7	+ 1	403	451	− 48	− 11
Punjab	664	459	+205	+ 45	373	459	− 86	− 19
Himachal Pradesh	1073	1321	−248	− 19	948	1321	−373	− 28
Jammu & Kashmir	397	394	+ 3	+ 1	385	402	− 17	− 4
Rajasthan West*	210	287	− 77	− 27	201	287	− 86	− 30
Rajasthan East*	544	654	−110	− 17	623	652	− 29	− 4
Madhya Pradesh West	930	949	− 19	− 2	830	951	−121	− 13
Madhya Pradesh East	1458	1196	+262	+ 22	1019	1196	−177	− 15
Gujarat Region, Daman, Dadra and Nagar Haveli	752	774	− 22	− 3	863	828	+ 35	+ 4
Saurashtra Kutch & Diu	666	535	+131	+ 24	654	586	+ 68	+ 12
Konkan & Goa	2562	2557	+ 5	+ 0	2906	2557	+349	+ 14
Madhya Maharashtra	569	543	+ 26	+ 5	672	543	+129	+ 24
Marathwada	758	653	+105	+ 16	719	653	+ 66	+ 10
Vidarbha	983	996	− 13	− 1	1128	996	+132	+ 13
Coastal Andhra Pradesh	616	555	+ 61	+ 11	613	555	+ 58	+ 10
Telangana	780	778	+ 2	+ 0	915	777	+138	+ 18
Rayalseema	339	417	− 78	− 19	535	417	+118	+ 28
Tamil Nadu & Pondicherry	194	280	− 86	− 31	384	271	+113	+ 41
Coastal Karnataka	2983	2945	+ 38	+ 1	3294	2945	+349	+ 12
South Interior Karnataka	455	418	+ 57	+ 14	445	384	+ 61	+ 16
North Interior Karnataka	574	580	− 6	− 1	750	513	+237	+ 46
Kerala	1946	2037	− 91	− 4	2158	1743	+415	+ 24
Lakshadweep	685	1001	−316	− 31	1071	950	+121	+ 13

Note—All values are based on the data of India Meteorological Department stations except in respect of sub-divisions with asterisks for which available State raingauge stations also are included.

ECOLOGY

HAECKEL, the noted German biologist, first described ecology in the 19th century as the study of inter-relationship between living organisms and their environment.

With the remarkable big leap forward in science and the phenomenal strides in industrialisation, environmental pollution, a concomitant of industrial progress, has become a serious problem. Aldous Huxley rightly sized up "the double crisis as the upper level of political and economic crisis and the lower level of demographic and ecological crisis."

Arthur Westing, an American botanist, who made a close study of the environment after the Viet Nam War, observed that there was a permanent ecological disaster. For 10 per cent. of the trees had been sprayed with anti-plant chemicals called herbicide, and 3,000 million cubic metres of soil volume had been displaced by bombs resulting in craters.

Significantly, the rape of the environment all over the world led to the Stockholm Conference in 1972 which roused environmental consciousness the world over. In 1975 the U.S. and the U.S.S.R. forwarded to the 28th U.N. Assembly an identical draft convention drawing its urgent attention to the pressing need for prompt remedial environmental measures to arrest growing deterioration in ecology. It deplored "any technique for changing through deliberate manipulation, the dynamics, composition or structure of the earth, including its biota, lithosphere, hydrosphere and atmosphere or of outer space so as to cause earthquakes, or upset the ecological balance or any change in the weather pattern."

The timely warning sounded at the international level is of particular interest to the developing countries like India which are "enmeshed in a vicious circle of poverty, over-population, environmental degradation and disease". It is ironical that in India the emphasis as stated in the *Upanishads* "that the good earth is honey to all, and all men are honey to the earth," appears to have lost its significance.

Right from the north, the pristine beauty of the Himalayas extending for 2,500 k.m. over an area of 500,000 sq. metres must necessarily be kept clean and free from pollution. Already the "garbage trails" are spoiling the environment. Mountaineering expeditions have been reminded of the possible havoc from keeping the area cluttered up with waste matter. A noteworthy fact not always fully realised, is that the great mountains keep the entire climate of the country in balance.

Prof. Jack Ives of Colorado University, U.S., states that reckless exploitation of forests on the slopes of the Himalayas is pushing a vast area of Asia towards environmental disaster. He fears that if steps are not taken well in time this will accelerate deterioration of the downstream environment of the Gangetic plain, the breadbasket of India. The steep hill-side of the Himalayas is part of a fragile and vitally important eco-system that acts as a watershed for the Indo-Gangetic plains. Deforestation will spell disaster and bring in its wake floods and landslides that might result in loss of human lives, destroy valuable crops and property. Climatologists fear that the forest carpet might suffer and may eventually change the rainfall pattern.

Environmental care is vital for many other reasons too namely: Scientific research, economic value, preservation of wild life and the general well-being of the people funnelling clean air, pure water and hygienic surroundings. Unfortunately, researchers have noted that habitat destruction has resulted in the depletion of elephants and rhinos in Africa and Asia.

India is one of the richest wild life centres in the world with an estimated 500 species of mammals, 2,100 species of birds, 26,000 types of insects and nearly 700 types of reptiles. To protect the over 195 wild life reserves over 25 national forests have been created.

Trees being the promoters of excellent ecology, a gigantic tree-planting campaign is called for at all levels. For the ecological functions of a single tree which possesses 20,000 calories of proteins is said to pump oxygen into the atmosphere, recycle water in the soil, check soil erosion and control environmental pollution.

The Chipko movement of the Kumaon Hills has overtones of how lack of foresight and ignorance of sound ecological knowledge had changed the environment. Centuries ago the East India Company had cut down the original trees which provided fodder, fruit, honey, fuel and nutrition to the soil and planted instead pine trees for extracting resin. Pine leaves and the twigs are highly acidic making the soil weak and thereby increasing erosion leading on to landslides and floods. That has also affected wild life as no animals can find adequate shelter in such surroundings.

Deserts are no less important for they treasure in their bosoms some of the rare specimens of cacti which are unique in the way they have adapted and thrive in harsh conditions.

POLLUTION

THE directive principle embodied in the Indian Constitution (42nd Amendment) calls for the preservation and improvement of the environment. Proper ecological balance makes for sound health and good life. But mounting environmental degradation by air, water, and noise pollution in several parts of the country has reached alarming proportions as many towns and industrial zones under the pace of rapid industrialisation and mounting population have been affected by attendant contamination.

The rapid deterioration of the eco-system, flood havoc, deforestation, the disappearance of wild life and industrialisation have all added up to worsening pollution.

The pollution of rivers was shocking as it was alarming: the Damodar river in some parts has a blackish colour and the Chaliyar river in some areas has turned brownish. The Mahim creek in Bombay and the Thana-Kalyan region are highly polluted. A broad survey of the polluted areas reveals that in Delhi, the Indraprastha power complex and the Yamuna are highly polluted. In Calcutta many of the 1,250 industrial plants zone and the rivers in the Punjab have a high rate of pollution. In Goa it has been found that even some wells in some villages have been polluted by fertiliser wastes. In Cochin, the Alwaye industrial belt has badly affected the Periyar river. The beautiful Dak Lake in Srinagar has been found to be receding day by day, slowly but surely, as a result of heavy pollution and the abnormal growth of weeds. Even the world-famous 300-year-old Taj Mahal was at one time seriously endangered by sulphur-dioxide which would do untold damage to "one of the great wonders of the world"

In Chembur, Bombay's suburb described as the "gas chamber of Asia", pollution has reached such a serious situation and is such a hazard to health owing to the contamination of air by the oil refineries, fertiliser and other large industrial complexes that, according to expert medical opinion, there are mounting cases of lung and throat infection. Even many plants are said to have shed their leaves.

Significantly, India subscribes to the aims and objects of the International Union for the Conservation of Nature and Natural Resources and is taking prompt and energetic measures to mitigate pollution. In line with the official policy, the Maharashtra Government has set up a Pollution Control Board.

Historically, latest scientific research reveals that one of the prime factors for the disappearance of many civilisations was pollution. The Mayan civilisation of Guatemala, the Mesopotamia, the Mohenjodaro and the Carthaginia civilisation were the victims of some form or other of ecological destruction. Sind, once the "Granary of western India", was also hit by ecological ruin.

Industrialisation, though vital for the prosperity of the nation, demands judicious planning and careful execution of schemes for it can dramatically alter the balance of nature with disastrous results for man in his happy and healthy environment. Pollution of air and water with automobile and industrial gas emissions and human and industrial effluents, heavy metals and pesticides residues can create untold and widespread havoc. The hectic din and bustle of industrial activity can also seriously disturb environmental harmony. Noise is environmental contamination and can harm health like impure air and polluted water. Noise control is now widely considered abroad as a major branch of acoustical engineering. To reduce noise, machine vibrations are sought to be subdued by the use of "absorber mounts".

Bombay's huge population (touching 9 million) apart, it is stated that 1,500 tonnes of pollutants are released into Bombay's atmosphere daily. The carbon monoxide pollutants are placed at 38.4 per cent and sulphur dioxide at 34.4 per cent which are released by 450,000 vehicles and thousands of large and small-scale industries in Bombay.

The seriousness of the ill-effects of pollution is evident from the fact that many cases of tuberculosis among children have been reported from the Lalbaug and Parel areas of Bombay, the predominant industrial textile mills centre. Reports from West Bengal indicate that children in Calcutta's industrial belt are also said to be suffering increasingly from chest diseases, including bronchitis. Several respiratory diseases have been reported from Asansol's industrial belt.

Though the Central Public Health Engineering Research Institute (CPHERI) and the Society for Clean Environment (SOCLEEN) are endeavouring to clean up the polluted areas, statistics reveal the growing hazards to public health if firm and swift remedial measures are not taken in hand well in time.

Even in the rural areas, as in the case of the village of Nelavagilu on the banks of the Tungabhadra river, there have been several serious pollution cases reported from the industrial zones. It has been repeatedly suggested and strongly emphasised that increasing use be made of pollution-free technology and water treatment technology. On a rough estimate, 50 tonnes of dust, grime and muck per kilometre settles down on each of our big cities every year. Diesel fumes further endanger health.

On the subject of noise pollution, it is stated that the day and night noise levels in Bombay is placed at 75 decibels, the highest being 105 decibels near the airport. Out of a population of nearly 9 million in Bombay, nearly 30 per cent are badly affected by noise.

The World Health Organisation (WHO) has selected Bombay as one of the five cities, among them being Toronto, Beijing and Zagreb, to conduct a study of air contamination. By monitoring on a continuous basis, data is being compiled to check the levels of pollution. It will determine the measure of environmental pollution on a group of selected individuals whether they be at home, in the trains, buses or cars, offices or factories on a round-the-clock basis. The Bombay project is being co-ordinated by the Air Pollution Preventive Cell of the BMC which monitors pollution at 21 sites in the city. WHO has made a grant of $40,000 for the project, mostly for equipment, and the BMC a matching sum.

Modern scientific research has revealed that physical and chemical agents in the environment where workers are employed can cause cancer.

Dr. R.J.C. Harris of the Imperial Cancer Research Fund, U.K., holds the view that 90 per cent of the cases of cancer can be attributed to environmental factors. His findings are an exposure of serious harm to the workers: (a) asbestos dust has often resulted in lung cancer; (b) the chromium-plating industry and allied industries have brought about nasal and bronchgenic carcinoma among workers; (c) arsenical insecticides and smelting operations have resulted in arsenic skin and lung cancer; (d) nickel refining is sometimes held responsible for nose and lung cancers and (e) the dyestuff industries have resulted in aromatic amines and bladder tumour. Special precautions are being taken to protect the workers' health in the developed countries. Though some precautionary measures are ensured in the Factories Act they have not been fully implemented, thus endangering the health of the workers.

The Indian Association of Occupational Health and the Indian Cancer Society have set up Commissions to examine and recommend precautionary and remedial measures.

Legislation has enabled the Government to take measures to control industrial effluents in Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Madhya Pradesh, the Punjab, Rajasthan, Uttar Pradesh and West Bengal.

DROUGHT

EVEN 100 years ago constant famine conditions stalked the land. The then British Government was forced to set up a commission in 1873 to draft a Famine Code which was officially formalised in 1883.

On an average the country receives 60.64 million cubic cms. of rain. But there is a variation in the seasonal and the annual distribution of rainfall. Some parts of Rajasthan get as low as 12.70 cms. of rain while the hills of Assam get as much as 1,270 cms. About 12 per cent of the country's area receives less than 61 cms. of rain on an average and only 8 per cent more than 254 cms.

Though the definition of drought varies widely, drought in India refers to a situation when the normal rainfall is 5 mm or less for the week. Agricultural drought is a period of four such consecutive weeks in the period from the middle of May to the middle of October or 6 such consecutive weeks during the rest of the year. Droughts have been occurring periodically largely due to the variability of the south-west monsoon from which 80 per cent of the annual rainfall is received during the period from June to September in most parts of the country. Not only a low rainfall but untimely distribution of fairly high rainfall can also lead to droughts. Approximate probability of deficient rainfall (deficiency equal to 25 per cent or more of the normal) is once in 4 to 5 years over large areas of the country.

In India, as many as 128 districts accounting for about 68 million hectares have low to medium rainfall under 1.125 mm. annually and these also have very limited irrigation facilities. Of these districts, 25 are characterised by very poor rainfall in the range of 375.750 mm. annually with an irrigated area of 5-10 per cent of the cropped area. Another 91 of these districts receive annual rainfall ranging from 750 to 1.125 mm. The total net sown area in these districts is 42 million hectares of which about 5 million hectares are irrigated. Agriculture in these dry farming areas is faced with the twin problems of low productivity and high instability. Since, by and large, drought regions have low water resources, they may have to depend on rainfed agriculture with its attendant risk of instability in years of bad monsoon.

The chronically-affected drought areas account for 19 per cent of the total geographical area of the country and 12 per cent of its population. With the exception of Kerala in the South, Punjab in the North and the States of North-Eastern region, every State in India has one or more drought-prone districts. Nearly 56 per cent of the geographical area of Rajasthan falls within the category of drought-prone areas; in terms of population the coverage is 33 per cent. Next to Rajasthan comes Andhra Pradesh, where about 50 per cent of the geographical area and 22 per cent of the population is within the ambit of the drought-prone areas. In Gujarat, about 29 per cent of the geographical area and about 18 per cent of the population are within the purview of the areas characterised as drought-prone. In Karnataka, the corresponding figures are 25 per cent and 22 per cent.

Maharashtra has had a succession of drought years in the recent past. In 1983, of the total 30 districts, 21 had been declared drought-stricken, the worst calamity of the decade. Over 22,000 villages were seriously affected by water scarcity which had affected both drinking water supply as well as irrigation. Crops had withered. Fodder shortage had affected cattle and there had been a steady migration of villagers into the urban areas nearby.

The State Government had spent Rs. 396.5 million in 2,940 villages, digging wells and bore-wells, between February and April, 1983. The Centre had sanctioned Rs. 116.3 million as assistance. The Employment Guarantee Scheme was the only ray of hope for the distressed and hard-hit villagers amidst the encircling gloom of those dark days.

These areas are the major factor contributing to regional imbalances in the country. Every third year, about 3 million inhabitants of arid zones take to migration with their livestock. These areas also remain a continuous source of strain on the financial resources of the country. The Irrigation Commission Report (1972) indicated the drought and chronic drought areas as follows:

(1) *Drought areas* (20 per cent probability of rainfall deficiency of more than 25 per cent of normal): Gujarat, Rajasthan and adjoining parts of Punjab, Haryana, West Uttar Pradesh and West Madhya Pradesh, Madhya Maharashtra, Interior Karnataka, Rayalaseema, South Telangana and parts of Tamil Nadu, a small portion of North-West Bihar and adjoining East Uttar Pradesh, and a small portion of North-East Bihar and the adjoining portion of West Bengal.

(2) *The chronically drought affected areas* (40 per cent probability of rainfall deficiency of more than 25 per cent of normal): West Rajasthan and Cutch.

The Drought-Prone Areas Programme (DPAP): Over the Plan period, several measures have been taken for the development of the drought-prone areas. These include: *(a)* development of irrigation; *(b)* formulation of schemes specifically designed to benefit the drought-prone-dry areas; *(c)* agricultural research specifically oriented towards the problems of the low rainfall areas; *(d)* scarcity relief which also helped in creating additional production potential and provision of services like drinking water supply; and *(e)* special programmes like Emergency Agricultural Production Programme.

The Drought-Prone Areas Programme (formerly known as the Rural Works Programme) which made a beginning in 1970-71 has been in operation in 54 districts primarily and contiguous areas of another 20 districts which have been identified as chronically drought prone. These districts have been identified only following criteria:

(i) incidence and pattern of rainfall; *(ii)* percentage of irrigated areas to the total area; and *(iii)* the frequency of drought over a period of time.

The districts covered under this Programme are as follows:

Andhra Pradesh: Anantapur; Kurnool; Cuddappah; Chittor; Mehboobnagar. **Bihar:** Monghyr; Palamau; Nawadah; Rohtas Dist. **Gujarat:** Panchmahals; Kutch; Jamnagar; Rajkot; Amreli; Banaskantha; Surendranagar. **Haryana:** Mohindergarh; Bhiwani; Rohtak. **Jammu & Kashmir:** Doda. **Karnataka:** Bijapur; Chitradurga; Kolar; Dharwar; Belgaum. **Madhya Pradesh:** Jhabua; Dhar; Sidhi; Betul. **Maharashtra:** Ahmednagar; Solapur; Nasik; Pune; Satara; Sangli. **Orissa:** Kalahandi, Boudh Phulbani. **Rajasthan:** Jaisalmer: Barmer: Pali; Jalore; Bikaner; Churu; Jodhpur; Banswara; Nagpur; Dungarpur. **Tamil Nadu:** Dharampuri; Ramanathapuram. **Uttar Pradesh:** Mirzapur; Banda; Allahabad; Varanasi; Hamirpur; Jalaun. **West Bengal:** Purulia; Midnapur; Bankura.

Contiguous areas selected under Drought Prone Areas Programme:

Andhra Pradesh: Ongole; Nalgonda. **Gujarat:** Mehsana; Ahmedabad; Bhavnagar. **Jammu & Kashmir:** Udhampur. **Karnataka:** Gulbarga; Raichur; Bellary; Tumkur; Chikmagalur. **Madhya Pradesh:** Khargaon; Shahdol. **Rajasthan:** Udaipur (Kharwara); Ajmer; Jhunjhunu.

Agricultural Research Oriented Towards Low Rainfall Areas: The All India Co-ordinated Research Project on dry land farming was introduced in 1970 in 15 centres and 9 sub-centres. Canadian assistance for this scheme was obtained under an Indo-Canadian agreement. This project provides research base for the integrated pilot dry land farming project. The Central Arid Zone Research Institute was also established at Jodhpur in 1959 and has been functioning as a focal point on research on agricultural problems of arid areas.

Loss due to drought in 1979: In 1979 drought had affected 97 districts in 11 States. The worst hit had been Andhra Pradesh, Bihar, Haryana, Himachal Pradesh, Jammu & Kashmir, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Uttar Pradesh and West Bengal. It is estimated that about 38 million hectares of cropped area, 200 million people and 123 million cattle were affected. The loss of *kharif* foodgrains alone is estimated to be over 10 million tonnes.

Reliefs: Nearly Rs. 1,569.5 million have been allocated for relief measures during 1979. Another sum of Rs. 1,100 million has been made available for development under various schemes. It has also been decided to import 20 drilling rigs to augment the supply of potable water in the drought-prone areas. Further one million tonnes of foodgrains have been earmarked for the affected States.

FLOODS

THE extremely severe floods in India in 1954 compelled the Government authorities to draw up a well-planned programme of flood control measures. Consequently, the National Flood Control Programme was launched in 1954 and divided into three phases: immediate, short-term and long-term. As an urgent step there was an intensive collection of data and emergency flood protection measures were executed.

Almost annually flood havoc has been particularly acute in the Ganga and Brahmaputra basins and the states most affected have been Bihar, Uttar Pradesh, West Bengal, Assam and Orissa. The Himalayan rivers cause as much as 60 per cent of the flood damage. It is estimated that flood control measures taken since the initiation of the Flood Control Programme in 1954 have afforded protection to about 12 million ha. till March, 1982.

The flood-prone river basins are: Sutlej, Beas, Ghaggar, Upper Yamuna and Yamuna (Sahibi), Upper Ganga, Gomti, Ghagra, Rapti, Gandak, Burhi Gandak, Bagmati, Kamla, Kosi, Mahananda, Sone, Punpun, Ajoy and Rupnarayan.

According to the recent assessment made, the flood-prone area in the country is of the order of 40 million ha. of which about 32 million ha. can be considered as protectable area.

The region traversed by the Himalayan rivers is also subject to earthquakes and land-slides, which make large areas flood-prone Growing frequency of floods in Andhra Pradesh, Maharashtra, Gujarat and Rajasthan is largely due to deforestation.

Flood Toll: As a result of floods in 1982, 1,321 people died in 16 states. Uttar Pradesh recorded the largest number of deaths (562) followed by Orissa (376) (including cyclones), Kerala (110), Madhya Pradesh (56), and Assam (44). The floods affected over 47 million people and 9.1 million ha. of cropped area. Besides 57.8 head of cattle perished and 2.84 million houses were damaged. The total loss amounted to Rs. 14,103 million.

Flood Control: Since the initiation of flood control programmes in 1954, considerable progress has been made in protecting areas from floods. The amount earmarked has also increased in successive Plans. During the Fourth Plan the outlay on Flood Control was Rs. 1,330 million. In the Fifth Plan it rose to Rs. 3,453 million. In the Sixth Plan (1980-85) it is Rs. 10.51 million.

With the outlay now proposed in the Sixth Plan, it is assessed that an area of about 3 million ha. is likely to be afforded a reasonable degree of production.

Progress Summary: To summarise the progress of the various flood control schemes since the launching of the National Flood Control Plan in 1954 to the end of March 1982 protective measures have covered 12 million ha. out of the estimated total of 40 million hectares regarded as flood prone. These measures comprised the following 12,652 km of embankment, 25,085 km of drainage channel, 313 town protection schemes (this includes some important villages) and raising of 4,696 villages, above flood level.

Damages by Flood during 1982

State/Union Territory	Area affected (in million hectares)	Population affected (in million)	Human lives lost in nos.
1	2	3	4
1. Andhra Pradesh	0.04	0.04	22
2. Assam	6.9	1.4	44
3. Bihar	0.9	1.7	25
4. Gujarat	Neg	0.01	44
5. Jammu & Kashmir	N.R.	N.R.	1
6. Karnataka	0.26	0.15	16
7. Kerala	Neg.	2.8	110
8. Madhya Pradesh	0.43	1.8	56
9. Maharashtra	N.R.	N.A.	31
10. Manipur	0.02	0.002	1
11. Orissa (Flood)	9.0	5.4	131
(Cyclone)	2.5	7.3	245
12. Punjab	Neg.	Neg.	1
13. Rajasthan	0.05	0.05	19
14. Tripura	0.05	0.17	4
15. Uttar Pradesh	5.5	23.3	562
16. West Bengal	0.21	0.13.	9

Neg. Negligible N.R.: Not reported. N.A.. Not Available.

In spite of these measures damage due to floods has shown a rising trend. A synoptic account of flood damages is furnished in he table below with a damage to crops given in brackets.

Flood damage data for years of heavy damages

(Rs. in million)

1953	542	(421)
1955	1187	(780)
1962	928	(803)
1967	1368	(1196)
1968	2027	(1371)
1969	3333	(2110)
1970	2818	(1618)
1971	6320	(4226)
1972	1582	(986)
1973	5691	(4280)
1974	5690	(4116)
1975	4713	(2712)
1976	8888	(5951)
1977	12019	(7206)
1978	14548	(9111)
1979	6142	(1700)
1980	8389	(3663)
1981	11323	(4980)
1982	14103	(4851)

Gauging Stations: The Central Water Commission is maintaining about 420 key gauging stations on various rivers of the country (excluding the Indus System) to WMO standards to collect accurate and reliable data of river flows for a scientific study of the country's surface water potential. These national stations are supplemental to observations that are being made by various States. There are plans to augment the national network.

Surface Water Resources: According to the studies made by CW & PC in 1949, the total annual flow of all the river systems in India comes to 1,672,599 m.cu.m. (1,356 million acre feet). As presently assessed the mean annual surface flow of the country is of the order of 1,768,058 m.cu.m. (1,433.40 million acre feet). Scientific observations for various river systems are underway to assess the firm water potential of the country. Slightly more than one-third of Water Resources (that is about 666,000 m.cu.m. or 540 million acre feet) available in the country are utilisable for various purposes in the conventional methods of development. However, this could be enhanced by inter-basin mass transfer of waters through long distances by construction of large storages, canals and pumping systems etc., for irrigation and to achieve flood control and generate hydel power etc. Plans are in hand to take up investigations and studies at the national level to prepare concrete proposals.

INDUSTRIAL POLICY

(See Late Particulars for Latest Assessment following Budget)

AFTER Independence the Government of India first outlined the industrial policy in 1948. It envisaged a mixed economy retaining the overall responsibility for planned development of industries and their regulation in its own hands, keeping in mind national interest. In 1954 with Parliament's acceptance of socialistic pattern of society, the industrial policy was revised. Industries specified in Schedule A (listed below) would be the exclusive responsibility of the State while industries in Schedule B would be progressively State-owned. But private enterprise was given scope to supplement the efforts of the Government.

Schedule A Industries: Arms and ammunition and allied items of defence equipment; atomic energy; iron and steel, heavy castings and forgings of iron and steel; heavy plant and machinery required for iron and steel production, for mining, for machine tool manufacture and for such other basic industries as may be specified by the central government; heavy electrical plant including large hydraulic and steam turbines; coal and lignite; mineral oils; mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamonds; mining and processing of copper, lead, zinc, molybdenum and wolfram; minerals specified in the Schedule to the Atomic Energy (Control of Production and Use) Order 1953; aircraft; air transport; railway transport; ship-building; telephones and telephone cables, telegraph and wireless apparatus (excluding radio receiving sets); generation and distribution of electricity.

Schedule B Industries: All other minerals except 'minor minerals' as defined in Section 3 of the Minerals Concession Rules, 1949; aluminium and other non-ferrous metals not included in Schedule A; machine tools; ferro-alloy and tool steel; basic and intermediate products required by chemical industries, such as the manufacture of drugs, dyestuffs and plastics, antibiotics and other essential drugs; fertilizer; synthetic rubber; carbonisation of coal; chemical pulp; road transport and sea transport.

ARECANUT INDUSTRY

THE Arecanut *(Areca catechu)* is one of the most important commercial crops in India and plays an important role in religious, social and cultural life. It came to India from Malaya, its original home. There are extensive plantations in southern Asian countries and east Indian Islands. India has many varieties of betelnuts (processed arecanut) which can be broadly classified into unboiled, boiled and coloured varieties.

LOCATION OF THE INDUSTRY

Kerala, Karnataka and Assam account for nearly 90 per cent of the total area and production. It is also cultivated to a smaller extent in Meghalaya, West Bengal, Tamil Nadu, Maharashtra, Andhra Pradesh, Goa and Andaman and Nicobar Islands. The state-wise break-up of the area under arecanut cultivation is given below:

Area under cultivation

(In thousand hectares)

		1978-79	1979-80	1980-81
Kerala	..	62.4	60.9	60.9
Karnataka	..	52.3	53.1	54.3
Assam	..	46.4	50.8	50.8
Meghalaya	..	6.5	6.5	6.5
Tamil Nadu	..	4.2	4.3	4.3
West Bengal	..	3.1	3.1	3.1
Maharashtra	..	2.1	2.1	2.1
Goa, Daman & Diu	..	1.4	1.4	1.4
Andhra Pradesh	..	0.2	0.2	0.2
Tripura	..	0.6	0.6	0.6
Mizoram	..	—	0.3	0.3
Total		179.2	183.3	184.5

Number of persons employed: About six million.

Ranking in the World Market: India ranks first in the world both in the area and production of arecanut. Other arecanut-producing countries are: Bangladesh, Sri Lanka, Malaysia and certain Pacific Ocean Islands.

CONSUMPTION

National consumption for the last four years: 1977-78: 170,278 tonnes; 1978-79: 178,587 tonnes; 1979-80: 182,681 tonnes; 1980-81: 183,900 tonnes.

The per capita consumption of betelnut in India is estimated at 0.33 kg. In Kerala it is 0.67 kg. and in Karnataka 0.66 kg. Among the cities, Delhi and Nagpur are the most important consuming markets.

EXPORTS

Arecanut is exported in small quantities to countries like Nepal, Kenya, Aden, Saudi Arabia etc.

The quantity exported 1977-78, 522 tonnes valued at Rs. 6.81 million; during 1978-79, 613 tonnes valued at Rs. 8.11 million; during 1979-80, 619 tonnes valued at Rs. 8.24 million and during 1980-81, 370 tonnes valued at Rs. 7.37 million.

PRODUCTION

The state-wise break-up is as follows:

(In '000 tonnes)

		1978-79	1979-80	1980-81
Kerala	..	52.2	53.2	53.2
Karnataka	..	76.2	77.2	79.2
Assam	..	44.5	48.8	49.8
Maharashtra	..	2.5	2.6	2.5
Tamil Nadu	..	2.9	3.0	3.0
Goa, Daman & Diu	..	1.3	1.3	1.3
West Bengal	..	0.8	0.8	0.8
Meghalaya	..	0.9	0.9	0.9
Andhra Pradesh	..	0.2	0.2	0.2
Tripura	..	0.4	0.4	0.4
Mizoram	..	—	0.1	0.1
Total	..	181.9	189.5	191.4

GENERAL

Average per hectare yield: 1,037 kgs. of processed nuts.

RESEARCH

A new high yielding variety '*Mangala*' has been released from the *Central Plantation Crops Research Institute's* Regional Station at Vittal, South Kanara for cultivation. This variety, an introduction from China, gives 70 per cent more yield than that of the best local ones, besides being an early bearer.

Pilot trials conducted have shown that fat, alcohol, etc. can be extracted and products like chewing gum, tooth paste etc. can be prepared from arecanut kernel. The liquid obtained while boiling tender nuts ('Kali') can be utilised for tanning leather Hard board, wrapping paper, cushioning materials etc. can be made out of arecanut husk. Arecanut leaf-sheath can be used for making gin washers, packing cases, soles and heels in shoe making etc. Arecanut husk is also an excellent poultry litter.

Considering the present trend in production, internal consumption and export no further expansion of area is contemplated for the crop. However, attention is given for increasing returns from the existing plantations by adopting intensive cultivation and inter and mixed cropping practices.

The Directorate of Cocoa, Arecanut and Spices Development of the Department of Agriculture and Co-operation, Government of India, is situated at 1/500, Cannanore Road, Calicut 673005, Kerala.

Marketing: Besides the *Central Arecanut Marketing and Processing Co-operative Ltd., Mangalore* an inter-state organisation set up for procurement and marketing of the crops, there are 17 co-operative marketing societies and 37 regulated markets in Kerala, Karnataka, Tamil Nadu, Maharashtra and Goa for better marketing of the commodity.

Publications: 1. Indian Cocoa, Arecanut and Spices Journal (Quarterly) brought out by the Directorate of Cocoa, Arecanut and Spices Development, Calicut-673005, Kerala. 2. Journal of Plantation Crops (Half Yearly) brought out by Indian Society for Plantation Crops, Central Plantation Crops Research Institute, Kasaragod-670124.

COCONUT

THE Coconut palm *(Cocos nucifera)* is famed as one of the world's most important crop trees. It can grow to 100 feet. Its earliest home is not known, but is said to have originated in Indo-Malaya where it found natural habitation. Marco Polo was among the earliest Europeans to have written about it. It grows largely in the Philippines, India, Sri Lanka, Indonesia, Malaysia and the Pacific Islands.

The Coconut finds its greatest commercial utilisation in industrial countries of the West. Such is its utility that the Indonesians say that it has as many uses as there are days in the year. In India the coconut forms an important item of food and is also used during religious functions.

India ranks third in the world in the production of coconuts and contributes about 10 per cent of the world production.

During 1980-81, India produced 5,677.4 million nuts on 1.08 million hectares with Kerala alone producing 3,036.4 million coconuts. Tamil Nadu was the second highest with 1,132.4 million followed by Karnataka 883.8 million and Andhra Pradesh 175.2 million.

The Centre set up the Coconut Development Board on January 12, 1981 to promote intensive coconut development in States. The Board has formulated several projects with an estimated outlay of Rs. 50 million and has set up a regional office in Karnataka.

Under the Centrally Sponsored Package Programme up to November, 1981 an area of 0.12 million hectares had been covered, 3,600 demonstration plots were laid out, 90,000 hybrid seedlings were distributed and 360 hectares were covered under seed gardens.

Research: The Central Plantation Crops Research Institute (CPCRI), Kasargod, Kerala, has collected 2,500 nuts belonging to 21 'tall' and 3 'dwarf' types to enrich the germplasm.

During 1982 a manually operated coconut dehusker was developed which is capable of dehusking 3,000 nuts by three operators within a short time.

Coconut oil: Coconut is one of the important oilseeds produced in the country. The most valuable product of the coconut is copra from which the oil is obtained. During 1981-82 the production of copra was 371,000 tonnes.

COIR

THE history of coir goes back to the 11th century A.D. when Arab writers mentioned the word coir and referred to the use of this material for ships, cables and rigging. The word coir is derived from the Malayalam word 'kayar', meaning cord.

It was in England that coir was first put to practical use. About 125 years ago three partners of a London carpet firm registered their patents for the manufacture of coir fabrics suitable for floor coverings.

The development of the coir industry in India began in 1859.

LOCATION OF THE INDUSTRY

It is one of the foremost cottage industries in Kerala employing lakhs of people in all the different processes such as retting of coconut husk, extraction of fibre, spinning of yarn, and manufacture of coir products. Rich with backwaters the facilities for retting of husks are abundant there. While spinning activities extend over the length of the coastal belt of Kerala State, the manufacturing sector is localised mostly in Alleppey, Shertallai and suburbs.

Tamil Nadu and Karnataka are the other major producers of coir in India. In Tamil Nadu the industry is concentrated in Kanyakumari, Salem and Dharmapuri districts. Recently extraction of coir fibre by mechanical process has accelerated the growth of the industry in Tanjore district also. Kanyakumari district is the chief centre of production of *muppiri* coir yarn and Salem and Dharmapuri of coir rope.

In Karnataka a number of units are in operation for the mechanical extraction of fibre, besides two rubberised coir producing units. In West Bengal, production of coir rope is carried on power operated machines. A rubberised coir producing unit is also in existence in this State. In Orissa there is a rubberised coir producing unit and a few defibering units. A few coir producing units are also in existence in other coconut producing States, viz. Andhra Pradesh, Gujarat, Maharashtra, etc.

State-wise breakup of industrial establishments engaged in the production of coir products, viz. coir mats, mattings, rugs, and carpets etc., as per the records available with the Coir Board, is given below:

Kerala 3,704; Karnataka 57; West Bengal 15; Maharashtra 6; Haryana 1; Orissa 6; Gujarat 4; Uttar Pradesh 1; Pondicherry 2; Goa 8; Lakshadweep 1; Tamil Nadu 116; Andhra Pradesh 11; Total 3,932.

No. of persons employed: About 450,000.

Ranking in the world market: The total volume of coir entering the world trade is about 146,200 tonnes. Raw fibre alone accounts for 95,100 tonnes while coir yarn and processed coir goods account for only 51,100 tonnes. India's share is as follows: Coir yarn 90 per cent, coir manufactures 59 per cent, coir cordages and ropes 95 per cent.

PRODUCTION AND CONSUMPTION

India and Sri Lanka are the only two countries where widespread commercial production is undertaken even though coconuts are grown in abundance elsewhere.

Estimated annual output of coir in principal producing countries is as follows:

Country	Thousand tonnes
India	170.4
Sri Lanka	102.9
Tanzania	8.5
Bangladesh	5.8
Thailand	4.0
Philippines	2.5
Burma	2.2
Kenya	2.0
Seychelles	1.9
Malaysia	1.5
Mozambique	1.0
Morocco	0.5
Total	291.6

EXPORT OF COIR AND COIR PRODUCTS

Commodity	1980-81		1981-82	
	Q	V	Q	V
Coir fibre	164	0.57	1	N.A.
Coir yarn	13,486	87.31	15,837	104.82
Coir mats	7,403	82.33	8,143	92.06
Coir matting & rugs and carpets	7,330	84.33	5,980	71.85
Coir rope	79	0.47	93	0.59
Curled coir	148	0.44	25	0.06
Rubberised coir goods	1	0.02	—	—
Total	28,611	255.47	30,079	269.38

Q—quantity in tonnes. V—value in Rs. Million.

Of the estimated production of coir fibre at 158,800 tonnes during 1980-81 white fibre (retted fibre) accounted for 126,500 tonnes and brown fibre (unretted fibre) accounted for 32,300 tonnes.

The All-India estimated production during 1981-82 of coir and coir products of different types is: Coir fibre: 170,400 tonnes; coir yarn: 122,900; coir products: 23,400 tonnes; coir ropes: 35,690 tonnes; curled coir: 2,500 tonnes; rubberised coir goods: 1,500 tonnes.

CONSUMPTION OF COIR AND COIR GOODS

Commodity	Quantity in tonnes
Coir fibre (a) white	2,700
(b) brown	10,000
Coir yarn	59,960
Coir products	9,280
Coir ropes	35.600
Curled coir	2.475
Rubberised coir goods	1,500
Total	121,515

GENERAL

Coir Board (Address: Post Box No. 1752, Ernakulam south, Cochin-682016) established in 1951, assists the development, manufacture, sale, export and technological research.

Training and Research: The Central Coir Research Institute in Kalavoor, Alleppey, Kerala carries out fundamental and applied research to improve existing products and find new uses of coir.

The Board has also set up a **National Coir Training and Design Centre** at Alleppey to impart training in techniques of coir production. An extension service covering coir extraction, processing and manufacture especially spinning, dyeing and weaving was also started. Besides Kerala Coir Boards Extension Service Centres are functioning in Karnataka, Tamil Nadu, Orissa, Andhra Pradesh and Lakshadweep.

Ten large exporters and their items of export (in brackets): (1) M/s. Kerala Balers Ltd., P. B. No. 23, Alleppey 688001 (Coir Yarn and Coir Products); (2) M/s. Alleppey Co. Ltd., P. B. No. 3, Alleppey 688001 (Coir Yarn and Coir Products); (3) M/s. Travancore Mats & Matting Co., P. B. No. 4, Shertallai 688524 (Coir Products); (4) M/s. William Goodacre & Sons (I) Ltd., P. B. No. 6, Alleppey 688001 (Coir Fibre, Coir Yarn, Coir Products & Coir Rope); (5) M/s. Palm Fibres & Yarns Trading Co., Calvetty, Cochin 682001 (Coir Yarn & Coir Products); (6) M/s. N. C. John & Sons Ltd., Alleppey 688001 (Coir Yarn); (7) M/s. Charankattu Coir Manufacturing Co. Ltd., P.B. No. 7, Shertallai 688524 (Coir Products & Coir Yarn); (8) M/s. Kerala State Coir Corporation, P. B. No. 199, Alleppey 688001 (Coir Products & Coir Yarn); (9) M/s. General Export Co., P. B. No. 199, Alleppey 688001 (Coir Yarn); (10) M/s. Indian Coir Manufacturing Co., Vizichery, Alleppey 688001 (Coir Products & Coir Yarn); (11) M/s. Koncherry Coir Factories, Shertallai (Coir Products); (12) M/s. Brothers Coir Mills, Alleppey (Coir Products); (13) M/s. Coir Floor Furnishing Co., Alleppey (Coir Products); (14) M/s. Aspinwall & Co. (Travancore) Ltd., Alleppey (Coir Products); (15) M/s. K. V. Thomas & Co., Alleppey (Coir Products); (16) M/s. General Supplies Agency, Alleppey (Coir Products).

Publications: Coir half-yearly, Coir News, Monthly Bulletin of Exports of Coir and Coir Products and the annual brochure India's Production, Export and Internal Consumption of Coir are all published by the Coir Board.

CASHEW-NUT

TROPICAL Central and South America is said to be the original home of the Cashew tree *(Anacardium occidentale)*. It was discovered during the 15th century by Portuguese missionaries who took it to East Africa and India. The first saplings were planted by them on the West Coast of India during the sixteenth-seventeenth centuries to check soil erosion. Finding a congenial home it grew extensively and is known as 'Feringi Mango' (Feringi meaning Portuguese).

Despite its early introduction the commercial value of the cashew-nut was discovered only in the 1920s when some enterprising processors sent the nut abroad. There was an immediate demand for the cashew kernel in raw or roasted form, which marked the beginning of the cashew industry.

Tropical or sub-tropical evergreen ranges in size from a small shrub in dry soil to 40-feet tree where the soil is fertile and there is great humidity.

The cashew "apple" when ripe, is juicy and sweet and rich in vitamin C. The juice is used in the preparation of syrup, squash, jam, candy and wine.

The cashew-nut shell liquid is a brown viscous oil and is an important raw material in the manufacture of insulating varnishes, paints, typewriter rolls, oil and acid proof cold setting cements, industrial flooring tiles, automobile brakelinings and also in the plastic industry.

Area under Cashew: The total area under cashew in India is increased from 447,376 hectares in 1979-80 to 464,465 hectares in 1980-81 which has further increased to 481,043 in 1982-83.

A World Bank-aided multi-state cashew project with an outlay of Rs. 383.6 million is in operation in Kerala, Karnataka, Andhra Pradesh and Orissa. An area of 60,275 hectares is expected to be brought under new plantations under this project. Similar projects for States of Maharashtra, Tamil Nadu, Tripura, West Bengal and the Union Territory of Goa are envisaged. In the tribal areas of Orissa and Andhra Pradesh a programme for providing subsidy for expansion has been undertaken and an area of 57,229 hectares has been brought under improved management.

LOCATION OF THE INDUSTRY

Out of about 300 processing factories in the country about 200 are in Kerala State and the others in Tamil Nadu, Karnataka, Andhra Pradesh and Maharashtra.

Public Sector: The Kerala State Cashew Development Corpn. Ltd., Quilon, opened its first factory in July, 1970 by taking over a factory owned privately. By the end of 1974, the number of factories taken over increased to 34.

Ranking in the World Market: India now accounts only for about 40 to 45 per cent of the world export of cashew kernels. Dwindling indigenous production of raw nuts and the gradual development of the processing industry in African countries are the two main reasons for this low position.

PRODUCTION

The production of rawnut also increased from 180,266 million tonnes in 1979-80 to 185,250 million tonnes in 1980-81 which has further increased to 195,760 million tonnes in 1981-82.

During the year 1982-83 the production of rawnuts is estimated at 0.2 million tonnes.

IMPORTS

The domestic supply of raw nuts is inadequate to meet the total requirements of the processing factories. The imports of raw nuts have also dwindled considerably in recent years. The imports of raw nuts which had been canalised through the Cashew Corporation of India Ltd., a subsidiary of the State Trading Corporation, have been brought under OGL in 1981-82. This facilitated free imports of raw nuts by Actual Users against licences subject to the condition that 50 per cent of the nuts so imported should be given to the Cashew Corporation of India Ltd., for distribution to all eligible cashew-nut processing factories.

Imports of raw cashew-nuts from Tanzania, Kenya and Madagascar during 1981-82 amounted to 28,582 tonnes valued at Rs. 362.24 million.

Cashew Corporation of India Ltd., Post Box 1216, M. Gandhi Road, Cochin 682011.

EXPORTS

Export of Cashew Kernels

(Quantity in Tonnes)

Countries	1980-81	1981-82	1982-83
U.S.A.	5,204	3,867	6,594
U.S.S.R.	20,446	22,339	14,819
U.K.	349	316	556
East Germany	79	105	562
Australia	1,026	918	1,309
Canada	253	28	300
France	106	8	38
Japan	1,576	1,057	1,610
Netherlands	1,383	316	935
Hong Kong	463	290	875
West Germany	130	38	62
Czechoslovakia	320	637	319
Lebanon	61	43	84
Belgium	5	—	12
Malaysia & Singapore	342	420	744
New Zealand	261	234	291
Kuwait	251	291	450
Bahrain	93	32	121
Rumania	68	169	132
S. Arabia	94	133	106
U.A.E.	179	185	159
Total Exports including other countries	32,805	31,537	30,195
Value in Rs. million	1.411	1,869	1.323

Exports of Cashew-nut Shell Liquid

(Quantity in Tonnes)

Countries	1980-81	1981-82	1982-83
U.K.	1,113	710	—
U.S.A.	2,619	180	—
Japan	3,763	2,298	4,541
Czechoslovakia	100	116	130
West Germany	170	133	40
South Korea	683	779	1,025
Rumania	250	260	25
Netherlands	71	—	60
Total Exports including other countries	9,006	4,771	5,903
Value in Rs. million	68.4	21.8	17.4

Export of Cashew Kernels: India had the monopoly in the export of processed cashew kernels until Mozambique, Tanzania and Kenya set up their own units and started processing more and more of local production of raw cashew-nuts and exporting processed kernels abroad.

Cashew kernel exports during 1982-83 fetched Rs. 1,323 million, a decline of 29 per cent for the earnings in 1981-82. Quantity-wise exports were less by about 4 per cent.

Export Duty: There is one per cent ad valorem cess on exports of cashew kernels. The tariff value for cashew kernels fixed for the purpose for the year 1982-83 (July-June) was Rs. 3,000 per quintal.

The Cashew Export Promotion Council (Chittoor Rd., Ernakulam South, Cochin 682016, Kerala) was set up in 1955.

GENERAL:

Research: At least ten hybrids and over a score of improved selections are now available which have a potential to yield 10 to 15 kgs. of nuts per plant in a year, against the present average yield of only about 1.5 kgs. Vengurla 3 and Vengurla 4 hybrid cashew varieties released last year have given an average yield of about 16.6 kgs. per tree. During 1982-83, four high-yielding selections and two hybrids were developed and released in Andhra Pradesh as Bapatla 1,2,3,4,5 and 6 at the Cashew Research Station, Bapatla.

According to the study made by GATT, a good average crop from a mature plantation tree is around 10 kgs. in East Africa and 50 kgs. in India.

In Africa, the average yield of kernels is about 21 to 24 per cent of raw nut weight, while in India it is slightly higher. Indian processors claim to be able to get upto 80-90 per cent whole kernels, while the mechanical processing plants in Africa record upto 65 per cent.

The labour intensive technology in the cashew industry in Kerala in which the operations are done manually, accounts for the investment per worker being as low as about Rs. 300. Over 90 per cent of the workers are women.

Publications: 'Cashew Causerie' (quarterly), C/o Directorate of Cashewnut Development, New Delhi; 'Cashew Bulletin' (monthly) and 'Indian Cashew Journal' (quarterly), C/o Cashew Export Promotion Council, Chittoor Rd., Ernakulam South, Cochin 682016.

RUBBER

RUBBER is a unique natural product with the quality of elasticity and is one of the vital industrial raw materials. Obtained from the milky juice of certain tropical plants the most popular variety used commercially is called Hevea Brasiliensis (known as Para rubber) which accounts for over 95 per cent of the world production of natural rubber.

Columbus is credited with the introduction of natural rubber into the modern world. During his second voyage to America in 1493 he came across natives of Haiti playing with balls having elastic qualities and were made from exudation of certain trees called *caucho*—meaning weeping trees.

In the initial stage the use of rubber was limited to a form of solution used as rubber-proofing of fabrics. The commercial importance of rubber increased with the discovery of vulcanising process evolved by Charles Goodyear in 1839. The invention of the pneumatic bicycle tyre by Dunlop in 1888 gave a boost to production. The industry gathered momentum with the dawn of the automobile age by the end of last century.

With mounting demand for natural rubber, rubber plantations received intensive attention. The first plantation in the eastern hemisphere was started in Sri Lanka and later in the South-East Asian countries. Today Asia is the main producer of natural rubber with Malaysia alone accounting for 50 per cent of the total world production of 3.4 million tons.

In India the first plantations were started in Kerala in Travancore and Malabar around 1880 and later in the Andaman and Nicobar Islands.

With the development of synthetic rubber industry in the U.S. in 1942 use of natural rubber took a new leap. Today synthetic rubber accounts for 70 per cent of the total rubber consumption in the world. Great strides were also made in the latex goods like balloons and toys during World War II.

The synthetic rubber industry was started in India with the commissioning of the factory of Synthetics and Chemicals Ltd., at Bareilly in U.P., followed by a second plant, The Indian Petrochemicals Ltd., in Vadodara.

The first rubber goods industry in India was set up in 1920 at Calcutta and it produced cables and the first automotive tyre factory was established in Shahaganj, West Bengal, in 1936 by Dunlops which was later followed up by Firestone in Bombay.

Today rubber fills a variety of needs in defence equipment like heavy transport vehicles, tanks, fighters and bomber planes and rockets. Rubber parts for automobiles, engineering equipment, medical and surgical goods, hose pipes, footwear, sports materials, adhesives, cable insulation material are some other utility products of daily use.

Apart from the tyre industry which is the bulk consumer of 55-60 per cent of rubber produce and conveyor belts most other products are made by the small-scale sector.

Recently, the elastic quality of rubber has been put to experiment in the construction of dams and buildings.

No. of persons employed: More than 170,000.

Ranking in the world market: India is the fifth largest natural rubber producing country in the world after Malaysia, Indonesia, Thailand and Sri Lanka.

Location of Rubber Plantations: Kerala State accounts for about 91 per cent of the total area under rubber and the Kanyakumari District in Tamil Nadu for about 5 per cent with Karnataka, Andaman and Nicobar Islands, Goa, Maharashtra and the North Eastern States contributing the rest. Table I gives a pattern of hectareage under rubber in 1980-81.

TABLE 1
Pattern of hectareage under rubber

Group size	No. of units	Area in hectares
A. Small Holdings		
2 hectares and below	136,733	98,146
Above 2 & up to 4	11,424	30,140
Above 4	6,289	46,373
Total	154,446	174,659
B. Estates		
40 hectares & below	258	7,289
Above 40 & up to 200 hectares	228	18,659
Above 200 & up to 400 hectares	25	7,481
Above 400 & up to 600 hectares	15	7,208
Above 600 & up to 800 hectares	10	6,835
Above 800 hectares	17	19,372
Total	553	66,844
Grand Total	154,999	241,503

TABLE II
Production and Consumption

(Figures in tonnes)

Year	Production				Consumption			
	Natural	Synthetic	Reclaim	Total	Natural	Synthetic	Reclaim	Total
1977-78	146987	27288	21817	196092	144967	36150	21681	202798
1978-79	135297	28054	27618	190969	164524	40470	26330	231324
1979-80	148470	29524	26786	204780	165245	42488	25660	233393
1980-81	153100	25293	29336	207729	173630	45200	26850	245680
1981-82	152870	28499	28787	210156	188420	46445	28160	263025

Production and Consumption: Production of natural rubber which was 146,987 tonnes in 1977-78, fell to 135,297 tonnes in 1978-79. The production level of natural rubber rose to 148,470 tonnes in 1979-80, further to 153,100 tonnes in 1980-81. Production declined marginally in 1981-82 to 152,870 tonnes. Consumption of natural rubber went up from 144,967 tonnes in 1977-78, to 164,524 tonnes in 1978-79 and further to 165,245 tonnes in 1979-80. The total consumption in 1980-81 was 173,630 tonnes which increased to 188,420 tonnes in 1981-82. Table II gives the trend in production and consumption since 1977-78.

Per Capita Consumption: In 1981 the per capita consumption of rubber in the U.S. was 11.6 kgs., Canada 12.0 kgs., Germany (FR) 9.2 kgs., U.K. 6.1 kgs., France 8.5 kgs., Australia 6.7 kgs., Italy 6.8 kgs. and Japan 10.9 kgs. In India, per capita consumption is as low as 0.33 kg.

The average yield per hectare in Indian plantation which was 770 kgs. in 1977-78 fell to 710 kgs. in 1978-79. In 1979-80 the yield was 770 kgs. per hectare. The yield was estimated at 790 kgs. per hectare in 1980-81 and 780 kgs. in 1981-82.

Imports: As a result of the steady increase in consumption and fall in production, export of rubber was stopped and imports allowed from 1978-79 onwards. The quantity of natural rubber import was 14,750 tonnes in 1978-79 and 32.200 tonnes in 1979-80. During 1980-81 the imports of natural and synthetic rubber were 9,250 and 15,806 tonnes respectively. The imports are effected through STC. Besides natural rubber the industry is allowed to import synthetic rubber directly. The trend in imports of natural rubber and synthetic rubber, since 1978-79 are given in Table IV.

Rubber Goods: The total number of rubber goods manufacturing units in India is around 3.021, of which over 100 units are fairly well organised. The annual turnover of the industry is over Rs. 7,500 million and the number of persons employed over 100,000.

The industry's contribution to national income is expected to exceed Rs. 25,000 million per year during the next ten years creating additional employment to 20,000 people.

The industry is spread almost all over the country, though heavily concentrated in the States of West Bengal, Maharashtra and Tamil Nadu. With the exception of Haryana, Uttar Pradesh and Kerala, the industry has made comparatively little progress in other States. Natural and synthetic rubbers are the basic raw materials. Other important raw materials include carbon black, rubber chemicals, reclaim rubber, tyre fabrics (nylon/rayon/cotton), bead wire, tyre tube valves and miscellaneous chemicals. The automotive tyres and tubes industry constitutes the largest sector of the rubber goods manufacturing industry. About 52 per cent of the rubber consumed in the country is used by the automotive tyres and tubes industry including camelback. Cycle tyres and tubes account for about 14 per cent consumption, footwear about 11 per cent, belts and hoses about 6 per cent and the balance is accounted for by other products.

Exports of Rubber Goods: There has been a steady decline in the value of rubber goods exports in recent years. From Rs. 273.6 million in 1976-77 the value of rubber goods exports fell to Rs. 270.9 million in 1977-78 and to Rs. 222.8 million in 1978-79. In 1979-80 the value of rubber goods exports totalled Rs. 228.3 million. The situation improved in 1980-81 with value of exports increasing to Rs. 302.3 million and further to Rs. 403 million in 1981-82.

Synthetic Rubber: Production of synthetic rubber was started in India in 1963 when the factory of Synthetic & Chemicals Ltd., at Bareilly (U.P.) started producing synthetic rubber. Built with an initial rated capacity of 30,000 tonnes per annum, the varieties of rubber produced by this factory are styrene butadiene rubber and nitrile rubber called Chemaprene. Another synthetic rubber factory with a licensed capacity of 20,000 tonnes of poly-butadiene rubber has been established recently by Indian Petro-Chemicals Corpn. at Vadodara (Gujarat) and commenced production in 1978. The trend in production, consumption and import of synthetic rubbers since 1977-78 is given in Table II & IV. The consumption of synthetic rubber is about 20 per cent of total rubber consumption. The tyre industry uses more than 60 per cent of the total synthetic rubber output.

Rubber Development Schemes: The Rubber Board is implementing various schemes for the development of rubber plantations in India. These include grant of subsidy for replantation, grant of loans and aids for new planting and maintenance of small holdings, distribution of high yielding varieties of planting materials, grant of subsidy on the cost of fungicides and fertilisers used by the small holders, grant of subsidy for construction of smoke-houses by small holders, distribution of plant protection equipments, grant of financial assistance to

TABLE III
World Production and Consumption of Natural and Synthetic Rubber

(in '000 tonnes)

Year	Production			Consumption		
	Natural	Synthetic	Total	Natural	Synthetic	Total
1978	3755	8850	12605	3725	8770	12495
1979	3860	9330	13190	3870	9125	12995
1980	3845	8645	12490	3760	8685	12445
1981	3685	8465	12150	3700	8445	12145
1982(P)	3705	7825	11530	3625	7875	11500

(P) Provisional.

TABLE IV
Import of natural and synthetic rubber

(in tonnes)

Year	Natural	Synthetic
1978-79	14750	13525
1979-80	32200	17661
1980-81	9250	15806
1981-82	41280	23358

co-operative societies for establishing processing centres and undertaking marketing of rubber. The Board also operates an extension and advisory service among rubber growers. Labour welfare measures also form part of the work of the Board.

In 1977 an agreement was signed by the Govt. of India and the World Bank which provided for financial and technical assistance to establish 9 block rubber processing factories in the co-operative sector and expansion of the existing factory in the sector. The project is to be implemented in a phased manner and is to be completed by 1985.

Rubber Board: With Headquarters at Kottayam-686001, Kerala, it looks after development of the industry.

Research: The **Rubber Research Institute** established by the Board has five divisions namely, botany, agronomy, plant pathology, chemistry/rubber technology and plant physiology and exploitation.

The facilities at the Rubber Research Institute have been made available to the Cochin University to conduct a two-year post-graduate course in Rubber Processing and Technology leading to a B-Tech degree. The Institute maintains two experimental stations of 20 hectares and 250 hectares each.

TABLE V

Production: Tyres & Tubes

('000 nos.)

Year	Automobile		Cycles	
	Tyres	Tubes	Tyres	Tubes
1976	5,853	5,378	23,426	16,509
1977	6,180	5,425	27,003	14,923
1978	6,990	6,168	31,375	14,473
1979	7,000	5,703	28,840	11,006
1980	7,848	6,602	26,746	11,876
1981*	8,321	7,383	26,566	12,277

* Provisional

Publications: The following are the publications of the Rubber Board: 'Rubber' (Monthly), 'Rubber Statistical News' (Monthly), 'Rubber Board Bulletin' (Quarterly), 'Indian Rubber Statistics' (Annual).

LAC

LAC is a natural resin—a zoo botanical product from secretions by tiny insects known scientifically as Laccifer. Lacca. This insect, about 0.5 mm. long, belonging to the family of scale insects and mealy-bugs is a parasite thriving on the sap of certain specific trees, shrubs and creepers called the 'lac hosts'. These are Palas (Butea frondosa), Kusum (Schleichera trijuga), Ber (Zizyphus jujuba), Khair (Acacia catechu), Gout (Zizyphus xylopyra) and Arhar (Cajanus indicus).

The name lac might have been derived from the Sanskrit word 'Laksha', implying myriads of lac insects—about 20.000—working on an average to form a pound of stick lac in a single lac encrustation. References to lac in the *Atharva Veda* and the *Mahabharata* indicate that ancient Hindus were also aware of lac and its uses.

Originally used as a dye, later scientific research gave it a greater importance after shellac was developed.

Lac has an important place in the Indian economy for three reasons—export value, its various uses in different industries and subsidiary income to the tribal people working on it.

There are four crops of lac named after the Hindu months in which the collection of each crop commences. These are 'Baisakhi' and 'Katki' from one strain of the insect (Rangeeni) and 'Jethwi' and 'Aghani' from another strain (Kusmi). Each Rangeeni female produces 0.003 g. of somewhat dark lac, while each Kusmi female makes about 0.07 g. of a more valuable light-coloured lac.

LOCATION OF THE INDUSTRY

The lac factories are located in the following five States with the number of units in brackets: Bihar(83), West Bengal (87), Madhya Pradesh (16), Maharashtra (6) and Uttar Pradesh (6). (Total 198 units). About 40% of the country's total lac is produced in Bihar, the main centre being Chota Nagpur.

No. of Persons Employed: Bihar: 1,979; West Bengal: 2,209; Madhya Pradesh: 127; Maharashtra: 103; Uttar Pradesh: 95. (Total: 4,513).

In addition about 4 to 5 million *Adivasis* are gainfully employed in the rearing and collection of lac from forests.

PRODUCTION

The lac insect is found in most of the near and far eastern countries but is commercially exploited only by India and Thailand. India's share in world production is about 50 per cent and Thailand's more than 40 per cent.

The all-India production of lac over the last four years (in tonnes) was as follows: 1979-80: 15,253; 1980-81: 20,481; 1981-82: 21,465; 1982-83: 13,420.

The final report issued by the Directorate of Lac Development, Ranchi, puts the total yield of the respective lac crops for the years 1981-82 and 1982-83 as follows:

(In tonnes)

	1981-82	1982-83
Baisakhi	15,350	10,150
Jethwi	1,320	800
Katki	2,020	1,520
Kusmi	2,775	950

Bihar had the highest production of 15,510 tonnes in 1981-82 followed by Uttar Pradesh 450, Madhya Pradesh 2,560 and West Bengal 2,357 tonnes. In 1982-83 the corresponding figures were 9,657,550, 2,270 and 523 tonnes, respectively.

CONSUMPTION

India's consumption (in tonnes) over the last three years was as follows: 1980-81: 967; 1981-82: 1.218; 1982-83: N.A.

IMPORTS

Imports of lac over the last few years are given below:

Year	Quantity in quintals	Value in Rupees
1974-75	4,578.1	5,953,607
1975-76	nil	nil
1976-77	95	34,446
1977-78	nil	nil
1978-79	nil	nil
1979-80	nil	nil
1980-81	nil	nil
1981-82	nil	nil
1982-83	120,000	n.a.

EXPORTS

Export earnings from lac increased by 25% during 1981-82. Against Rs. 125 million in 1980-81, exports during 1981-82 went up to Rs. 156.6 million, the increase being attributed to the spurt in the export of shellac. The first recorded export of Indian lac to Europe was as early as 1607.

Indian lac being indisputably the best in quality is sold to over 100 countries. Over 85-90 per cent of the total production is exported. The largest buyers are China, U.S.A., U.S.S.R., and U.K. The export figures are as follows:

(In tonnes)

	1980-81	1981-82	1982-83
China	275.0	418.0	108.0
U.S.A.	2,981.0	3,801.0	983.0
U.K.	702.0	861.0	504.0
U.S.S.R.	600.0	125.0	325.0
West Germany	1,496.0	1,324.0	1,237.0
Brazil	240.0	268.0	331.0
Italy	165.0	298.0	110.0
Australia	111.0	163.0	66.0
Japan	498.0	165.0	48.0
France	33.0	30.0	44.0
Other Countries	3,217.0	3,248.0	3,246.0
Total	10,318.0	10,701.0	7,002.0

Shellac Export Promotion Council with headquarters at 14/1B Ezra St., Calcutta 700001.

GENERAL

For the development and marketing of lac, a **Directorate of Lac Development** has been created under the Department of Agriculture, Government of India with headquarters at Circular Road, Ranchi 834001, Bihar. The Government of India has also constituted the **Indian Lac Development Council** to advise it on all matters relating to development of lac cultivation, trade and industry.

The Bihar Co-operative Lac Marketing Federation Ltd., Ranchi, supports prices when they fall below economic levels. It is the only lac factory in Public Sector.

Research: To improve the technique of lac cultivation and to find new uses are the responsibilities of the **Indian Lac Research Institute at Namkum,** Ranchi, Bihar. This institute is under the control of the Indian Council of Agricultural Research and provides training facilities.

Important uses: Surface coating makes up for the largest use of shellac, followed by printing inks, handicrafts, pharmaceuticals, cosmetics, hair lacquers and electrical industry. Lac is also used in the manufacture of French polish, gramophone records, electrical insulating materials, micanite, hats, grinding wheels, adhesives, cements, wood turning, metal enamelling etc. Other products are water-proof nail polish, dental plates, glazed paper, lac bangles, jewellery fillings, crayons, photo engraving etc.

COCOA

COCOA comes from the seeds or beans of a medium-size tree, generally known as *Theobroma Cacao*, originally growing wild in the lowlands of Mexico. Christopher Columbus is believed to have introduced it in Spain in 1528. From there it spread to other countries.

It was introduced into India on a commercial scale during the 60s of this century in which Cadbury India Ltd. (now Hindustan Cocoa Products) played a leading role.

Location of plantations: Cocoa is now grown in India over an area of about 29,000 hectares largely as a mixed crop in coconut and arecanut gardens. The major cocoa growing state is Kerala followed by Karnataka and Tamil Nadu. Cocoa is grown in small areas in Andhra Pradesh, Maharashtra, Orissa, Goa and the Andaman and Nicobar Islands.

Though there are two popular varieties—Criollo and Forestero only the latter has been recommended for cultivation in India because of its wider adaptability and better performance.

PRODUCTION

The estimated production of cocoa beans in India was about 1,600 tonnes in 1980-81; 2,200 tonnes in 1981-82 and 3,000 tonnes in 1982-83.

Consumption: The maximum grinding capacity of the processing industries in India is about 2,000 tonnes, but only slightly more than one-third of this is utilised at present.

Exports: Cocoa is exported as cocoa bean, powder, chocolates, cocoa butter etc. to the Middle East, Nepal, U.K., Indonesia and Singapore. During 1980-81 exports of cocoa from India was 308 tonnes valued at Rs. 5.90 million and cocoa products 23 tonnes valued at Rs. 0.4 million.

Imports: The demand tor cocoa was being met in the past by import. The maximum annual import of cocoa beans has been 1,135 tonnes in 1973-74. During 1979-80 India imported 586 tonnes of cocoa beans and powder valued at Rs. 20.90 million and 49 tonnes of cocoa products worth Rs. 0.58 million. With the increase in internal production the imports have reduced and during 1980-81 only 398 tonnes of cocoa beans and powder valued at Rs. 11.12 million and one tonne of cocoa products worth Rs. 0.03 million were imported. Under the present policy of the Govt. of India import of cocoa beans/powder has been banned.

Marketing: Cocoa is purchased both by Government agencies and manufacturing industries. The existing practice is to procure the produce as wet beans or pods. The beans are then processed. Dry beans as processed by the growers are also purchased by the agencies.

In Kerala and Karnataka the State Governments arrange procurement of the produce from farmers through co-operatives viz. Kerala State Co-operative Marketing Federation, Cochin and the Central Arecanut Marketing and Processing Co-operative Ltd., Mangalore. These organisations have a number of primary societies as procuring agents in the major producing centres. Besides, there are a number of private firms like Hindustan Cocoa Products (Cadbury), M/s. Sathe Biscuits and Chocolates, Kaira District Co-operative Milk Producers Union who procures cocoa beans, either directly or through agents.

GENERAL

Development: The Government of India has constituted the Indian Arecanut and Cocoa Development Council with State and Central Government officials and representatives of growers, traders and farm workers as members. It periodically reviews the on-going development programmes and advises the Government of India on future needs. The development programmes are formulated and implemented by the State Governments and the Directorate of Cocoa, Arecanut and Spices Development, functioning at 1/500, Cannanore Road, Calicut-673005, Kerala. The Directorate is implementing a special programme of educating farmers in the scientific cultivation of the crop and processing of the produce through field demonstrations and training.

The important development measures undertaken include establishment and maintenance of progeny orchards of high yielding cocoa trees, training of farmers and extension workers in the scientific cultivation of the crop and primary processing of the produce and production and distribution of quality seedlings.

Research: The agronomic research work on cocoa is undertaken by the Central Plantation Crops Research Institute, Kasaragod, and by the Kerala Agricultural University. The Central Food Technological Research Institute, Mysore, carries out research work on post harvest technology and product development.

Processing firms: The following are the important processing firms: (1) M/s. Hindustan Cocoa Products (Cadbury), Cadbury House, Bhulabhai Desai Road, Bombay-400026 (2) M/s. Sathe Biscuits and Chocolate Company, Bhavanipeth, Pune-411002; (3) Kaira District Co-operative Milk Producers Union Ltd., Anand-388001; (4) Dr. Writers Chocolates and Canning Company, Bhavanishankar Road, Dadar, Bombay-400028; (5) The Cocoa Products and Beverages Ltd., Mount Poonamalle High Road, Manapakkam, Madras-600089.

One of the most modern processing cocoa plants, set up by the Central Arecanut Marketing and Processing Co-operative (CAMPCO), went on stream in 1982 at Puttur near Mangalore. It is a joint venture project by Karnataka and Kerala governments.

Publications: 1. 'Indian Cocoa', Arecanut & Spices Journal (Quarterly), Directorate of Cocoa, Arecanut and Spices Development, Calicut-673005, Kerala; 2. 'Journal of Plantation Crops' (Half Yearly), Indian Society for Plantation Crops, Central Plantation Crops Research Institute, Kasaragod-670124.

COFFEE

PROBABLY the coffee plant is a native of Ethiopia. In early historical times it was recognised as a valuable drink by the Arabs, who were responsible for introducing it in Europe. The cultivation of coffee slowly spread throughout the Old World and early in 1720 in the New World.

The plant is believed to have been introduced in India by a Muslim saint who came from Mecca and made his home in Karnataka.

The coffee plant usually reaches heights ranging from 4.57 to 6.09 metres. The fruit is red and contains two interlinked seeds which when roasted and ground, produces the coffee powder.

Location of the Industry: Arabica (coffee Arabica) and Robusta (coffee Canephora) are the two types of coffee grown in commercial scale in India. The total area under the coffee in the country is 208,269 hectares—109,454 hectares Arabica and 98,815 hectares Robusta.

State-wise hectarage: Karnataka 112,962, Kerala 57,949, Tamil Nadu 32,759, Andhra Pradesh 3,070, Assam 734, others 795 (Maharashtra, Orissa, Mizoram, Andamans, Arunachal Pradesh, and Sikkim).

Of 99,802 estates 77,970 are registered and 21,832 unregistered, of these 97,709 small holdings of ten hectares and below. Karnataka has in all 30,609 estates.

Number of persons employed: 276,749.

Ranking in the World Market: Indian coffee contributes about 2.4 per cent in the world trade in coffee. During the year 1981-82 (Oct./Sept.), the total world exports were 3,809,340 tonnes of coffee of which India exported 90,060 tonnes. India occupied 12th place on the world trade during the year 1981-82.

Per capita consumption (in Kg.): 1976: 0.0619; 1977: 0.0711; 1978: 0.0730; 1979: 0.0774; 1980: 0.0730; 1981: 0.0741; 1982: 0.0788.

Exports

Indian coffee is imported to U.S.A., Canada, Europe, Australia, New Zealand, Japan and Middle Eastern countries. In addition to raw coffee India is also exporting instant coffee to U.S.S.R.. United Kingdom and Australia.

Exports of coffee for fiscal years 1980-81 and 1981-82 are given below:

Fiscal year	Export target (in tonnes)	Quantity of coffee exported (in tonnes)	Value realised in Rs. million
1980-81	85,000	89,018	2,157.7
1981-82	80,160	83,817	1,666.8

Export Duty: The export duty on coffee per quintal since March 1980 was as under.

From 28.5.1980 increased from Rs. 570 to Rs. 700 per quintal; from 17.7.1980 reduced to Rs. 500 per quintal; from 14.8.1980 reduced to Rs. 260 per quintal; from 1.12.1980 reduced to Rs. 150 per quintal; from 19.6.1981 export duty was abolished; from 21.8.1981 duty was reimposed at Rs. 75 per quintal; from 10.9.1981 duty was again abolished; from 12.11.1981 duty was again reimposed at Rs. 85 per quintal; from 17.2.1982 duty was increased from Rs. 85 to Rs. 300 per quintal.

With effect from July 5, 1982. Central Govt. fixed export duty at Rs. 140 per quintal. From September 20, 1982 export duty was increased from Rs. 190 to Rs. 300. On November 2, 1982 export duty was increased to Rs. 440 and on December 16, 1982 to Rs. 530.

PRODUCTION AND CONSUMPTION OF COFFEE IN INDIA 1978-79 TO 1982-83

Season	National Production (in tonnes)		Total	Calendar Year	Internal Consumption (in tonnes)		Total
	Arabica	Robusta			Arabica	Robusta	
1978/79	65,114	45,374	110,488	1978	23,840	22,188	46,028
1979/80	71,428	78,407	149,835	1979	28,093	21,555	49,648
1980/81*	61,300	57,300	118,600	1980	27,445	20,238	47,683
1981/82*	75,100	77,000	152,100	1981	28,586	22,210	50,796
1982/83*	67,000	68,000	135,000	1982	30,050	23,940	53,990

* Estimates subject to revision.

STATE-WISE PRODUCTION OF COFFEE — 1978-79 TO 1982-83

(In tonnes)

Season	Karnataka			Tamil Nadu			Kerala			All India**		
	Arabica	Robusta	Total	Arabica	Robusta	Total	Arabica	Robusta	Total	Arabica	Robusta	Total
1978/79	54,506	24,808	79,314	9,218	2,502	11,720	1,011	17,995	19,006	65,114	45,374	110,488
1979/80	61,226	46,195	107,421	8,918	3,866	12,784	847	28,270	29,117	71,428	78,407	149,835
1980/81*	47,995	31,690	79,685	11,115	3,135	14,250	1,075	22,465	23,540	61,300	57,300	118,600
1981/82*	62,435	40,315	102,750	11,180	3,990	15,170	975	32,680	33,655	75,100	77,000	152,100
1982/83*	55,000	40,000	95,000	10,600	3,500	13,600	1,400	25,000	26,400	67,000	68,000	135,000

* Estimates subject to revision.
** Inclusive of production of other states not mentioned separately.

Export Promotion Council: Coffee Board has been recognised as an Export House with effect from 1.1.1975 by the Government of India

Publication: "Coffee Statistics" is an annual statistical publication brought out by the Market Research and Statistical Bureau of the Marketing Department of the Board. Other publications are "Indian Coffee", a monthly publication and "Annual Report" of the Board.

TEA

TEA was first discovered in China in the 6th century A.D. By the 8th century A.D. it had become a popular beverage in China and Japan, before which it was used only as a medicinal drink. It was introduced in Europe in 1559 by Ramusio, a Venetian writer. But it became a flourishing business only in the 17th century after the East India Company brought tea into England in 1666 along with the cargo of oil, cinnamon and other luxuries.

Botanically known as Camellia, tea plants were first identified in India in 1823, as wild growth in parts of Assam, by the agent of the East India Company, Major Robert Bruce. Comparisons with the Chinese seeds established the superiority of the Assam variety. However, it took a lot of persuasion and assurances of concessions for British capitalists to invest in large-scale tea plantations. Tea is thus one of the earliest industries developed by the British houses in Calcutta

The quick success in Assam lured many others to take up this lucrative business and a Tea Committee was formed in 1834.

The first shipment of eight chests of tea reached London in 1838 and the Assam Tea Company, the first of its kind, was formed in 1839.

Calcutta is the largest tea auction centre in the world. It is the second largest of our foreign exchange earners. The first public sales (auction) of tea took place in 1841 in Calcutta and since then India has continued with every passing year to be the highest producer and largest exporter of the exquisite aromatic beverage: the cup of tea that cheers.

The development of the tea industry on scientific lines began with the setting up of the Tocklai Experimental Station in Assam in 1911, one of the largest research centres in the world. The other research centres are the Tea Experimental Station at Davershola on the Nilgiri Hills set up in 1926, the Central Laboratory and Field Station in Anamalai, a Tea Research Institute at Dooars in West Bengal and the Tea Experimental Farm at Palampur in the Kangra Valley.

There are three varieties of tea: black, green and Oolong, the black variety being the most popular.

LOCATION OF THE INDUSTRY

The two main tea-growing regions in India are North-East India and South India the break-up of which is given in Table 1.

TABLE 1

States	No. of the Tea Gardens as on 31.12.1981*	Area in Hectares as on 31.12.1980*
Assam	777	200,569
West Bengal	305	93,497
Bihar	3	459
Tripura	57	6,062
Uttar Pradesh	31	1,804
Himachal Pradesh	1,385	4,183
Total North India	2,561	306,844
Tamil Nadu	6,725	37,030
Kerala	4,109	36,130
Karnataka	15	1,887
Total South India	10,849	75,047
Total All India	13,410	381,891

*Provisional. *Source:* Tea Board

No. of persons employed: The estimated daily average labour employed during 1980 was as follows: North India: 685,214, South India: 161,445, All India: 846,659.

PRODUCTION

India's tea production is the largest in the world. Table II gives the State-wise break-up of the production.

The total world production of tea: 1971: 1,119 m. kgs.; 1972: 1,203 m. kgs.; 1973: 1,242.9 m. kgs.; 1974: 1,254 m. kgs.; 1975: 1,290 m. kgs.; 1976: 1,326 m. kgs.; 1977: 1,702.5 m. kgs.; 1978: 1,753 m. kgs.; 1979: 1,773.5 m. kgs.; 1980: 1,816 m. kgs.; 1981: 1,825 m. kgs. *(P)*

TABLE II

(in '000 Kgs.)

States	1980	1981*
Assam	300,700	305,130
West Bengal	133,185	128,259
Bihar	20	1
Tripura	3,688	2,375
Uttar Pradesh	285	1,000
Himachal Pradesh	551	607
Total North India	438,455	437,404
Tamil Nadu	74,006	71,597
Kerala	53,614	47,631
Karnataka	3,475	3,409
Total South India	131,095	122,637
Total All India	569,550	560,041

*Provisional. Source: Tea Board.

There are 28 countries in the world which produce tea. Production of tea in selected principal producing countries is given in the table below:

(in '000 Kgs.)

Country	1980	1981*
India	569,550	560,041
China	303,750	342,500
Sri Lanka	191,375	210,148
Japan	102,305	102,304
U.S.S.R.	129,800	134,000
Kenya	89,893	90,941
Indonesia	79,708	86,508
Turkey	95,889	41,165
Argentina	34,000	30,000
Taiwan	24,479	25,223
Bangladesh	39,939	41,141
Uganda	1,533	1,669
Malawi	29,915	31,965
Mozambique	19,500	22,190

*Provisional.

CONSUMPTION

The estimated consumption of tea in India: 1971-72: 224.7 m. kgs.; 1972-73: 236.9 m. kgs.; 1973-74: 248.0 m. kgs.; 1974-75: 260.1 m. kgs.; 1975-76: 272.3 m. kgs.; 1976-77: 285.9 m. kgs.; 1977-78: 300.2 m. kgs.; 1978-79; 317.9 m. kgs.: 1979-80: 337.1 m. kgs.; 1980-81: 358.0 m. kgs.; 1981-82: 378.0 m. kgs.

EXPORTS

Tea is the seventh largest foreign exchange earner of the country. India exports tea to over eighty different countries of the world of which United Kingdom buys almost one-third of the total exports. U.S.S.R., A.R.E., U.S.A. and Afghanistan are some of the other big buyers of Indian tea.

Export of tea during 1981-82 was to the order of 241.2 million kgs. valued at Rs.4,342.5 million against 224 million kgs. valued at Rs.4,290 million in 1980-81.

Export Promotion: The export promotion programme is being conducted by the Tea Board to improve the marketing of Indian tea and its consumption abroad, based on the following two main strategies: (a) to increase the overall consumption of tea in the world and (b) to increase the popularity and marketing of Indian tea in foreign countries.

Per Capita Consumption of Tea in Selected Countries

Countries	1977-79		1978-80	
	Total in '000 tonnes	Per head in Kgs.	Total in '000 tonnes	Per head in Kgs.
United Kingdom	175.54	3.14	176.12	3.14
France	6.63	0.12	7.35	0.14
West Germany	12.63	0.21	13.50	0.22
Ireland	11.87	3.59	11.60	3.44
U.S.S.R.	144.87	0.55	157.13	0.60
Canada	20.31	0.86	19.71	0.83
U.S.A.	79.87	0.37	77.10	0.35
Iraq	N.A.	N.A	N.A.	N.A.
Jordan	3.05	1.02	N.A.	N.A.
Morocco	18.58	0.98	20.31	1.04
Tunisia	N.A.	N.A.	9.05	1.46
Australia	23.68	1.66	22.68	1.57
New Zealand	7.41	2.38	6.61	2.13
India	318.33	0.50	337.75	0.52
Sri Lanka	21.27	1.50	N.A.	N.A.
Japan	111.79	0.97	112.86	0.97

N.A. Not Available.

The first aspect is being dealt by generic promotion programmes through eight Tea Councils set up in U.K., Ireland. West Germany, France, U.S.A., Canada, Australia and New Zealand of which India is a member. An International Tea Promotion Association has also been set up with India and other tea-producing countries as members.

India's uninational promotional programmes are mainly conducted through its overseas offices in London, Brussels, Cairo, Kuwait, Sydney and New York.

The addresses of the Board's overseas offices are as follows: (1) Director of Tea Promotion, Tea Board of India, 343/349. Oxford Street, London-W.I.R.; (2) Director of Tea Promotion, Tea Board of India, C/o Embassy of India, 23, Talaat Harb Street, Cairo (A.R.E.); (3) Director of Tea Promotion, Office National Indien Du The, Centre Regier, 20, Passage International Brussels-1000, Belgium; (4) Director of Tea Promotion, Tea Board of India, Associated National House, 8-12, Bridge Street, Sydney, NSW-2000, Australia; (5) Director of Tea Promotion, Tea Board of India, Consulate Central of India, 445 Park Avenue, New York; (6) Director of Tea Promotion, Tea Board of India, C/o Embassy of India, Post Box No. 1450, Kuwait.

Quantity and Value of Tea Exported to Selected Countries

Selected Countries	1980 Quantity ('000Kgs)	Value ('000Rs.)	1981* Quantity ('000Kgs)	Value ('000Rs.)
United Kingdom	45,509	871,504	40,971	690,833
U.S.S.R.	63,838	1,249,383	77,807	1,463,983
Netherlands	1,194	1,799	1,463	2,397
Afghanistan	8,290	135,245	11,363	184,182
Sudan	11,508	206,161	8,057	164,621
U.S.A.	3,568	70,399	3,866	77,515
Poland	11,787	208,778	13,775	221,758
Iran	10,302	252,156	7,768	181,711
Ireland	5,108	98,631	5,583	89,484
A.R.E.	17,173	240,451	18,756	253,247

*Provisional.

GENERAL

Production Target: A production target of 705 million kgs. has been set for 1984-85.

Average Yield Per Hectare

The average yield per hectare for various tea producing States is given below:

(In kgs.)

States	1980	1981*
Assam	1,499	1,521
West Bengal	1,424	1,374
Bihar	44	2
Tripura	608	392
Uttar Pradesh	158	554
Himachal Pradesh	132	145
North India	1,429	1,425
Tamil Nadu	1,999	1,933
Karnataka	1,842	1,807
Kerala	1,484	1,318
South India	1,747	1,634
All India	1,491	1,466

*Provisional.

Auction Centres: Indian tea is sold through auction centres at Calcutta and Cochin, which are also the major ports for export of tea, where nearly 132 m. kgs. and 77 m. kgs. of tea respectively is sold annually. Tea is also auctioned at Gauhati, Siliguri, Amritsar, Coonoor and Coimbatore.

About 27 m. kgs of Indian tea is sold through the London auction centre, major portion of which is meant for consumption in the UK.

Instant Tea: The production of instant tea in India is from green leaf rather than from manufactured black tea, as is the practice in the U.S.A. It is manufactured in India by Tata Finlay Ltd. and Messrs. Food Specialities Ltd. exclusively for export.

Production of Instant Tea in Kgs.: 1971: 254,307; 1972: 237,932; 1973: 214,508; 1974: 350,957; 1975: 276,912; 1976: 588,166; 1977: 734,811; 1978: 638,591; 1979: 597,466; 1980: 811,302; 1981: 798,242; 1982: 765,991.

Export of Instant Tea during 1980-81 to 1981-82*

	Quantity (in kgs.)	(Value in Rs.)
1980-81	761,321	36,608,401
1981-82	853,860	43,414,341

*Provisional.

The United Planters' Association of Southern India (address. Coonoor. Tamil Nadu) has facilities for tea research in South India at the Central Laboratory and Field Station in the Anamalai and a sub-station in Kerala. The scientific problems of the tea industry in the Kangra Valley are looked into by a Tea Experimental Farm located at Palampur. All these tea research establishments in India receive substantial financial assistance from the Government through the Tea Board of India (address: 14, Brabourne Rd., Calcutta-700001) which also maintains a close liaison with these institutions. The Tea Board has its own research centre at Kurseong in Darjeeling Dist. The Tea Board also sponsors and finances independent research projects at different universities and technical institutions to supplement the work of the various tea research establishments in the country.

Tea Corporations: The Tea Trading Corporation of India was set up in 1972 (address: 7, Wood Street, Calcutta 700016). Assam state-owned corporation was formed in 1971 and similar corporations have been set up in West Bengal, Tamil Nadu and Tripura.

SUGARCANE

SUGAR as a sweetening agent was a derivative discovered during the Middle Ages from a tall "Indian-bearing reed" which was perhaps grown in Asia from pre-historic times. This tall tropical perennial (species of *Saccharum officinarum)* of the grass family was later introduced into Europe by the Spanish and Portuguese explorers during the 15th and 16th centuries where sugarcane was looked upon as a luxury item sold by druggists. Gradually sugar replaced honey as a sweetener. Sugarcane and sugarbeet are the two major sources of sugar in the world. Today Brazil, U.S.S.R., Cuba and India are the leading producers.

Sugar manufacturer in India got a spurt after the Government granted it protection in 1932. From dependence on imports the country became self-sufficient within four years thereafter.

In 1931-32 there were an estimated 32 working units. By 1935-36 the number rose to 130. The volume of sugar production which was 162,000 tonnes in 1931-32 increased to 947,000 tonnes by 1935-36.

Maharashtra at present leads in production of cane sugar though Uttar Pradesh has a larger number of factories. The area under cane cultivation has increased from 0.18 million hectares to 0.32 million hectares during last ten years, 80 per cent of the area being in Western Maharashtra districts of Satara, Sangli, Kolhapur, Ahmednagar, Pune and Nasik.

Location of the Industry: Area under sugarcane cultivation in major producing States in 1981-82 is as follows ('000 hectares): Andhra Pradesh 178, Bihar 124, Haryana 147, Karnataka 168. Maharashtra 297, Punjab 106, Tamil Nadu 189, U.P. 1,660, Total (All India) 3,192.

State-wise break-up of working sugar factories in 1981-82 is given in brackets:

Andhra Pradesh (28); Assam (2); Bihar (28): Goa (1); Gujarat (14); Haryana (5); Karnataka (23); Kerala (3); Madhya Pradesh (7); Maharashtra (78); Nagaland (1); Orissa (3); Pondicherry (1); Punjab (8); Rajasthan (3); Tamil Nadu (21); Uttar Pradesh (91); West Bengal (2); Total (319).

Total installed capacity in 1981-82 season was 6.5 million tonnes.

Public Sector: There were 42 sugar factories in the Public Sector at the end of 1981-82 season. The State-wise break-up is as follows:

Uttar Pradesh: 18; Andhra Pradesh: 5; Karnataka: 2; Tamil Nadu: 2; Rajasthan: 1; Nagaland: 1; West Bengal: 1; Bihar: 9; Assam: 1; Punjab: 2.

No. of Persons Employed: The industry employs about 325,000 workers and millions of agriculturists are connected with it. The annual wage bill works out to about Rs. 2,000 million.

Capital Investment: A total of about Rs. 13,500 million is invested in this industry.

Ranking in the World Market: India is the fourth major sugar producing country in the world, the first three being Brazil, USSR and Cuba in that order.

Production and Consumption: Comparative figures of production and consumption of sugar for the last three years are:

(In million tonnes)

	1979-80	1980-81	1981-82
Production	3.86	5.15	8.46
Consumption	5.11	4.90	5:50

State-wise production of sugar for 1981-82 and 1980-81 respectively was as follows (figures in tonnes): Andhra Pradesh 545,794, (262,857), Assam 12,441, (4,972), Bihar 343,665, (193,861), Goa 11,558. (4.823), Gujarat 530.939. (332,145), Haryana 172,446, (102,652), Karnataka 647,501, (370,648), Kerala 16,444, (16,888), Madhya Pradesh 57,532 (17,098), Maharashtra 3,026,125 (2,085,424), Nagaland 6,592, (3,895), Orissa 21,286, (9,988), Pondicherry 25,388, (21,335), Punjab 148,958, (50,808), Rajasthan 22,794, (12,175), Tamil Nadu 755,705, (430,157), Uttar Pradesh 2,080,231, (1,224,161), West U.P. 704,078, (418,517), Central U.P. 860,069, (537,974), East U.P. 516,084, (267,670), West Bengal 10,495, (3,598), All India 8,435,894, (5,147,485).

Sugarcane and Gur: State-wise production of sugarcane and gur ('000 tonnes) respectively for 1981-82 was as follows: Andhra Pradesh 14,883 and 1,540.4; Bihar 4,180 and 418.0; Haryana 5,840 and 584.0; Maharashtra 28,780 and 3,151.5; Karnataka 12,556 and 1,255.6; Tamil Nadu 18,664 and 1,918.8; Punjab 6,120 and 612.0; Uttar Pradesh 76,808 and 7,680.8; All India 183,647 and 18,727.1.

Main By-Products: Production of the two main by-products over the last three years is given below:

(In million tonnes)

Year	Molasses	Bagasse
1979-80	1.58	12.75*
1980-81	2.13	16.15*
1981-82	3.89	30.40*

* Estimated.

During 1980-81 there were about 123 distilleries in the country with an annual installed production capacity of 664,043 litres. There were also 7 paper factories which supplement their raw material with bagasse.

Per Capita Consumption: Per capita consumption of sugar in India and abroad during the years 1976, 1979, 1980 and 1981:

(Figures in Kgs.)

Country	1976	1979	1980	1981
India	6.6	10.2	7.5	8.0
Sri Lanka	5.3	15.1	13.9	14.7
Japan	27.9	27.6	25.5	23.4
Indonesia	9.9	11.1	10.1	11.3
Malaysia	30.9	36.1	36.4	31.8
Pakistan	8.3	9.9	9.8	8.4
Asia	8.6	9.8	8.5	8.4
Europe	41.0	41.5	41.0	40.6
C. America	41.2	41.8	41.8	43.7
N. America	45.2	43.5	41.1	38.7
S. America	40.6	43.6	43.9	42.3
Africa	12.8	14.3	14.7	15.2
World Average	20.4	21.2	20.1	19.6

Exports: In 1973: 248,000 tonnes valued at Rs. 422 million; in 1974: 500,000 tonnes valued at Rs. 2,144 million; in 1975: 1.3 million tonnes valued at Rs. 4,750 million; in 1976: 843,000 tonnes valued at Rs. 2,686 million; in 1977: 254,802 tonnes valued at Rs. 682 million; in 1978: 636,297 tonnes valued at Rs. 1,164 million; in 1979: 656,054 tonnes valued at Rs. 1,393 million; and 1980: 62,792 tonnes valued at Rs. 260 million. Since the sugar production and the total availability during 1979-80 was low, the country after exporting a nominal quantity had to resort to import of sugar. A quantity of 181,000 tonnes was imported. During 1980-81, the country had exported a nominal quantity of 67,000 tonnes earning a foreign exchange of Rs. 35,000.

GENERAL:

On 25th May, 1971 the Government decontrolled sugar. A partial control was reimposed with effect from 1st July, 1972 the proportion between levy and free being 60:40. However, for the season 1972-73 Government reduced the share of free sugar to 30 leaving the balance 70 per cent for levy. The same position was maintained for the season 1973-74 but for 1974-75 the proportion between levy and free was changed to 65:35 respectively. The Government allowed 5 per cent free sugar to sugar industry to cover cost increase with effect from January, 1975. The same proportions have been extended to 1976-77 and 1977-78 seasons. On 16th August, 1978, sugar was once again decontrolled by the Government of India. With effect from 1st March, 1979, the industry adopted a voluntary scheme of regulation of monthly releases and the Government reinstated the monthly release system in the month of June, 1979. The Government imposed complete control on sugar with effect from 17th September, 1979. The policy was revised on 17th December, 1979 to that of partial decontrol with 65 per cent for levy and 35 per cent for free sale. The same policy was in force for 1979-80, 1980-81 and 1981-82 seasons.

Beet Sugar: Beet sugar has been produced in India by the State-owned Sri Ganganagar Sugar Mills in Rajasthan. During 1981-82 the plant diffused 193,694 quintals of beet and produced 18,106 quintals of sugar. The recovery percentage of beet sugar was 9.35 against the cane sugar recovery of 7.00.

Eleven Largest Units:

Name	Address	Capacity (in tonnes)
Shri Khedut Sahakari Khand Udyog Mandali Ltd., Sardar Baug, Bardoli 394602	Surat, Gujarat	7,000
The K.C.P. Sugar Factory Ltd.	Vuyyuru, Andhra Pradesh	6,000
Saraswati Sugar Mills	Yamunanagar, Haryana	5,200
Shetkari Sahakari Sakhar Karkhana Ltd.	Sangli, Maharashtra	5,000
Krishna Sahakari Sakhar Karkhana Ltd., Rethare, Budruk	Shivnagar, Satara	5,000
Shree Panchganga Sahakari Sakhar Karkhana Ltd.	Ichalkaranji, Maharashtra	5,000
The Mysore Sugar Co. Ltd.	Mandya, Karnataka	4,250
Mawana Sugar Works	Mawana; Meerut, U.P.	4,250
The Hindustan Sugar Mills Ltd.	Golagokarnath, Kheri, U.P.	4,229
Sakthi Sugars Ltd.	Sakthinagar, Erode, Madras	4,000
E.I.D. Parry Ltd.	Nellikuppam, Tamil Nadu	4,000

Training: The Sugar Industry gives practical training facilities to students of sugar technology and also trains a number of apprentics, as required under the Apprentics Act.

National Sugar Institute: At Grand Trunk Road, Kanpur 208001, Uttar Pradesh, conducts courses in sugar technology, besides many other agricultural universities which have this as a subsidiary subject.

Research is conducted at the *Indian Institute of Sugarcane Research* at Coimbatore, Tamil Nadu, Lucknow and Uttar Pradesh.

Deccan Sugar Institute: Near Naigaon in Maharashtra set up at a cost of Rs. 100 million provides technical expertise to the sugar industry.

National Federation of Co-operative Sugar Factories Ltd.: Vaikunt, 82-83, Nehru Place, New Delhi 110019 was set up in December, 1960 with the object of co-ordinating and facilitating the working of co-operative sugar factories, State and zonal federations and to assist in the promotion of new co-operative sugar factories.

So far licences/letters of intent have been issued for establishment of 197 co-operative sugar factories. Of these 156 sugar factories are in operation. Others are in various stages of establishment. In the year 1981-82, the co-operative sugar factories produced 4.60 million tonnes of sugar which was about 54.6 per cent of the total production in the country in that year.

The Indian Sugar Mills Association: Sugar House, 39, Nehru Place, New Delhi 110019 brings out the following publications: (1) 'Indian Sugar', Monthly Magazine, (2) 'Indian Sugar Year Book', Annual Publication, (3) 'List of Sugar Mills in India and Bangladesh and Pakistan', Annual Publication, (4) The Working Results of Sugar Factories. Besides the Association also brings out a weekly bulletin "Press News" and a fortnightly "Sugar in Parliament".

The National Federation of Co-operative Sugar Factories Ltd. also brings out the following publications: (1) 'Co-operative Sugar' and (2) 'Co-operative Directory & Year Book'.

'Shakara' a quarterly bulletin is brought out by the National Sugar Institute.

MAN-MADE FIBRE

MAN-MADE fibres are the result of man's urge to probe deep into the secrets of nature. It was Robert Hooke, an English scientist who visualised first the possibility of this fibre by imitating the silkworm's spinning process and published it in a book called *Micrographia* in 1664. In 1734 a French scientist predicted that man-made fibres would be made from gums or resins.

In 1845 Louis Schwabe, an English weaver fitted a machine with a nozzle which forced out artificial fibres from a glass liquid.

In the same year, C. F. Schonbein, a Swiss chemist discovered nitrocellulose, a preparatory step towards rayon manufacture. However, it was Count Hilaire de Chardonnet who produced rayon first in 1884 from nitrocellulose solution of pulp made from mulberry barks, coagulating the filaments in heated air. He is remembered today as the ' Father of the Rayon Industry '. The process he developed is known as Nitrocellulose process. The commercial production of rayon was started by this process in France in 1891.

In 1890, a second process, known as ' Cuprammonium process ' was patented by Louis Hentri Despeismonium, a French chemist. Two years later the ' Viscose process ' was discovered by C. P. Cross and E. J. Bevan in 1892. The ' Acetate process ' although developed in 1890 was commercially exploited only in 1902 when three Americans were granted patents.

Nylon, a true synthetic fibre was developed in the laboratory of E. I. du Pont de Nemours & Co., U.S. during the thirties of this century. Incidentally the name ' Nylon ' is coined from the names of two major cities: New York and London since the scientists belonged to these cities. It was in 1944 that Dr. J. T. Dickson and J. R. Shinfield, British scientists, developed polyester fibre and commercially exploited by I.C.I. Ltd. who became the exclusive licencees throughout the world except the U.S.

Man-made fibres are classified into four groups. Cellulose fibres, Synthetic fibres, Protein-base fibres and Inorganic fibres.

POSITION IN INDIA

The genesis of man-made textile industry in India was due to the protective measures given to the cotton textile industry by the Government of India. Nearly five decades

LOCATION OF INDUSTRY

TABLE 1: Synthetic Fibre Units in India

(in tonnes)

Name of the Unit	Year of commencement	Licensed capacity per annum as on April 30, 1983	Installed capacity per annum
Nylon filament yarn			
Baroda Rayon Corpn. Ltd., Bombay, Maharashtra (Udhna, Gujarat)	1974	2,436	2,436
Century Enka Ltd., Bombay, Maharashtra (Bhosari, Pune, Maharashtra)	1969	3,640*	3,100
Garware Nylons Ltd., Bombay, Maharashtra (Pimpri, Pune, Maharashtra)	1962	4,830	4,830
J.K. Synthetics Ltd., Kanpur, U.P. (Kota, Rajasthan)	1962	5,376	5,400
Modipon Ltd., Modinagar, U.P. (Modinagar, Uttar Pradesh)	1968	4,760	4,760
Nirlon Synthetic Fibres & Chemicals Ltd., Bombay, Maharashtra (Goregaon, Bombay, Maharashtra)	1962	5,308	3,528
Shree Synthetics Ltd., Ujjain, Madhya Pradesh	1972	3,452	2,175
Stretch Fibres (India) Ltd., Bombay, Maharashtra (Nagpur, Maharashtra)	1973	4,200	540
Taplon Ltd.. Hoshiarpur, Punjab	—	2,000	—
Total	—	38,388	28,769

* Including Polyester filament yarn.

TABLE 1: Synthetic Fibre Units in India — *Contd.*

(in tonnes)

Name of the Unit	Year of commencement	Licensed capacity per annum as on May 30, 1983	Installed capacity per annum
Nylon staple fibre			
J. K. Synthetics Ltd., Kanpur, U.P. (Kota, Rajasthan)	1971	900	900
Total		900	900
Nylon tyre cord			
Baroda Rayon Corpn. Ltd., Bombay (Udhna, Gujarat)	—	2,000	2,000
J.K. Synthetics Ltd., Kanpur, U.P. (Kota, Rajasthan)	1972	3,000	3,000
National Rayon Corpn. Ltd., Bombay, Maharashtra (Kalyan, Maharashtra)	1975	4,627	3,300
Nirlon Synthetic Fibres & Chemicals Ltd., Bombay, Maharashtra (Goregaon, Bombay, Maharashtra)	1971	4,000	2,190
Shriram Fibres Ltd., New Delhi (Manali, Tamil Nadu)	1975	6,335	5,000
Total		19,962	15,490
Acrylic staple fibre			
Indian Petro-chemical Corpn. Ltd., Vadodara, Gujarat	—	12,000	12,000
J.K. Synthetics Ltd., Kanpur, U.P. (Kota, Rajasthan)	—	4,000	4,000
Total		16,000	16,000
Polyester staple fibre			
The Ahmedabad Manufacturing & Calico Printing Co. Ltd., Vadodara, Gujarat	1974	12,000	7,625
Bongaigaon Refinery & Petrochemicals Ltd., Goalpara, Assam	1981	30,000	—
Chemicals & Fibres of India Ltd., Bombay, Maharashtra (Thane, Maharashtra)	1965	10,000	10,000
J.K. Synthetics Ltd., Kanpur, U.P. (Kota, Rajasthan)	1972	12,200	6,000
Indian Organic Chemicals Co. Ltd., Bombay, Maharashtra (Manali, Tamil Nadu)	1973	12,200	7,200
Swadeshi Polytex Ltd., Ghaziabad (Kavinagar, Ghaziabad, Uttar Pradesh)	1973	8,131	6,100
Total		84,531	36,925
Polyester filament yarn			
Baroda Rayon Corpn. Ltd., Udhna, Gujarat	1976	1,777	1,094
Century Enka Ltd., Bombay, Pune, Maharashtra	1977	1,500	4,200
Garware Nylons Ltd., Bombay, Maharashtra (Pimpri, Pune, Maharashtra)	1973	1,710	1,710
J.K. Synthetics Ltd., Kanpur, U.P. (Kota, Rajasthan)	1967	6,960	1,200
Modipon Ltd., Modinagar, U.P. (Modinagar, U.P.)	1973	1,723	1,723
Nirlon Synthetic Fibres & Chemicals Ltd., Bombay, Maharashtra (Goregaon, Bombay, Maharashtra)	1967	2,655	1,752
Orkay Silk Mills Pvt. Ltd., Bombay, Maharashtra	1967	6,000	6,000
Petrofils Co-operative Ltd., Vododara, Gujarat	1977	7,000	3,500
Reliance Textile Industries Ltd., Kulaba Dist., Maharashtra	1982	10,000	10,000
Shree Synthetics Ltd., Ujjain	1973	567	1,094
Stretch Fibres (India) Ltd., Nagpur, Maharashtra	N.A.	135	—
Total		40,036	32,273
Polypropylene staple fibre			
Neomer Ltd., Vadodara, Gujarat	1977	6,000	4,300
Total		6,000	4,300

Location of the factories is shown in brackets. N.A. — Not Available.

ago, the Government imposed a levy on rayon fabrics imported into the country. The objective was to curb the severe competition faced by the cotton textile industry through imports of rayon fabrics from Japan. The importers were thus induced to import rayon yarn and manufactured in India by setting up weaving mills during 1935-37.

Viscose rayon was the first commercial man-made fibre produced in India in 1950 with the setting up of Travancore Rayons Ltd. in Kerala. Other units which came up in subsequent years include: The National Rayon Corporation Ltd., Maharashtra (1951), Century Rayon, Maharashtra (1956), J. K. Rayon, U.P. (1959), Kesoram Rayon, West Bengal (1960), South India Viscose Ltd., Tamil Nadu (1961), Baroda Rayon Corporation Ltd., Gujarat (1962) and the Indian Rayon Corporation Ltd., Gujarat (1963).

Nylon was commercially produced first in 1962 when Nirlon Synthetic Fibres and Chemicals Ltd., Maharashtra, J. K. Synthetics Ltd., Rajasthan and Garware Nylons, Maharashtra set up their units. Subsequently Modipon Ltd., U.P. (1968), Century Enka Ltd., Maharashtra (1969), Shree Synthetics Ltd., M. P. (1972), Stretch Fibres (India) Ltd., Gujarat (1974) and Taplon Ltd., Punjab were set up.

Polyester was first produced in India in 1965 by Chemicals and Fibres of India Ltd., Maharashtra. Others who started the manufacture of polyester subsequently include: J. K. Synthetics Ltd., U.P. (1972), Indian Organic Chemicals Ltd., Maharashtra (1973), Swadeshi Polytex Ltd., U.P. (1973), The Ahmedabad Mfg. & Calico Printing Co. Ltd., Gujarat (1974) and Bongaigaon Refinery and Petrochemicals Ltd., Assam (1981). Production of Polyester filament yarn, Nylon staple fibre, Acrylic staple, Polypropylene staple, Nylon tyre cord/yarn, as well as raw materials like Caprolactum, DMT, Acrylonitrile, Ethylene Glycol, Rayon grade pulp, Cotton linter pulp, etc. commenced in later years.

Increased use of man-made fibres, wholly or partially, will be the future pattern of textile production in India.

TABLE 2: Licensed and Installed Capacity for the Manufacture of Raw Materials for Man-made Fibre Industry

Name of the Unit	Year of commencement of production	Capacity (tonnes per annum)		
		as on	Licensed	Installed
Caprolactum				
Gujarat State Fertilizer Co. Ltd.	1974	30-4-83	20,000	20,000
D.M.T.				
Indian Petrochemicals Corpn. Ltd.	1973	30-4-83	30,000	30,000
Bongaigaon Refinery & Petrochemical Ltd.	N.A.	30-4-83	35,000	N.A.
J.K. Synthetics Ltd.	1978	30-4-83	4,000	500
Bombay Dyeing & Mfg. Co. Ltd.	N.A.	30-4-83	60,000	N.A.
Total ..			129,000	30,500
Acrylonitrile				
Indian Petrochemicals Corpn. Ltd.		30-4-83	24,000	24,000
Ethylene Glycol				
Indian Petrochemicals Corpn. Ltd.	1973	30-4-83	20,000	20,000
National Organic Chemical Ind. Ltd.	1970	30-4-83	15,000	15,000
Rayon Grade Wood Pulp				
Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd.:				
(*i*) Mavoor Plant	1963	30-4-83	60,000	72,000
(*ii*) Harihar Plant	1972	30-4-83	48,000	58,000
South India Viscose Ltd.	1969	30-4-83	42,000	42,000
Andhra Pradesh Rayon Ltd., Hyderabad	1981	30-4-83	26,250	33,000
Century Pulp	N.A.	30-4-83	20,000	N.A.
Total ..			196,250	205,000
Cotton Linter Pulp				
Travancore Rayons Ltd.	1963	30-4-83	7,200	7,200

Per Capita Consumption — World

(in Kg.)

Country	Population in millions	Synthetics	Total man-made fibres	Natural fibres like cotton, wool, etc.	All fibres
Australia	14·1	10·1	12·5	11·3	23·8
Brazil	112.2	1·4	1·9	3·2	5·1
Canada	23·3	8·4	11·7	8·7	20·4
China (Mainland)	865·7	0·2	0·3	2·8	3·1
W. Germany	61·4	8·6	11·4	7·0	18·4
India	628·0	neg.	0·2	1·9	2·1
Japan	113·9	2·5	7·0	7·5	14·5
U.K.	55·8	6·7	9·3	5·6	14·9
U.S.A.	216·8	12·0	14·4	7·8	23·2
U.S.S.R...	258·7	1·5	3·1	9·8	12·9
Total World	4,280 (estimated)	2·0	2·9	3·9	6·8

CELLULOSIC FIBRE INDUSTRY

(A) Viscose Filament Yarn: There are at present 8 units engaged in the production of viscose filament yarn having a total licensed and installed capacity of 44,490 tonnes and 43,385 tonnes respectively per annum as per details given below:—

Name of the Unit	Location	Year of commencement	Licensed capacity per annum (tonnes) (as on April 30, 1983)	Installed capacity per annum (tonnes)
Baroda Rayon Corpn. Ltd.	Udhana (Gujarat State)	1962	4,500	4,500
Century Rayon	Shahad-Kalyan (Maharashtra)	1956	7,000	7,000
Indian Rayon Corpn. Ltd.	Veraval (Gujarat State)	1963	7,300	7,300
J. K. Rayon	Kanpur (Uttar Pradesh)	1959	4,000	3,650
Kesoram Rayon	Tribeni (West Bengal)	1960	3,650	4,635
National Rayon Corpn. Ltd.	Mohone-Kalyan (Maharashtra)	1951	9,000	9,000
South India Viscose Ltd.	Sirumugai (Tamil Nadu)	1961	4,000	4,000
Travancore Rayons Ltd.	Rayonpuram (Kerala)	1950	5,040	3,300
Total			44,490	43,385

Per capita availability of man-made fibre fabrics (including blends) in India is still very low by international standards. The per capita availability is given below:—

Year	Per capita availability (metres)
1965	1·73
1970	2·10
1975	2·22
1980	4·14
1981	4·70
1982	4·16

India and the World: India's share in the world production of cellulosic and non-cellulosic fibres is barely two per cent. A brief account of the output of cellulosic and non-cellulosic fibres in India vis-a-vis world production is furnished in the following table:

Combined Production of Cellulosic/Non-cellulosic Fibres

('000 tonnes)

Year	World	India	Per cent share of India in World Output
1975 ..	8,480	152	1·8
1976 ..	10,200	165	1·6
1977 ..	10,248	170	1·7
1978 ..	10,476	195	1·9

(B) Viscose Staple Fibre: (*i*) At present there are two units having licensed and installed capacity of 33,000 tonnes and 85,000 tonnes respectively per annum as under:—

Name of the Unit	Location	Licensed capacity per annum (tonnes) (as on Apr. 30, 1983)	Installed capacity per annum (tonnes)
The Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd.	(i) Nagda (Madhya Pradesh) (ii) Mavoor (Kerala)	22,000	78,000
South India Viscose Ltd.	Sirumugai (Tamil Nadu)	11,000	7,000
Total		33,000	85,000

(*ii*) As per latest information the details of Letters of Intent issued for the manufacture of Viscose Staple Fibre are as follows:—

Name of the Unit	Proposed location	Capacity per annum (tonnes)
The Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd.	Harihar (Karnataka)	36,000
Gogate Minerals	N.A.	27,000
The Ganges Mfg. Co. Ltd.	M.P.	8,000
Karnataka Industrial & Dev. Corpn. Ltd.	Karnataka	10,000
Tamil Nadu Industrial & Dev. Corpn. Ltd.	Tamil Nadu	14,000
Andhra Pradesh Rayons Ltd. ..	A.P.	17,500
U.P. Textile Industrial & Dev. Corpn. Ltd.	U.P.	22,500
Total		135,000

(C) Acetate Filament Yarn & Staple Fibre: There is only one unit *viz.* Messrs. The Sirsilk Ltd., Sirpur-Kaghaznagar, Andhra Pradesh, engaged in the production of acetate filament yarn and staple fibre having licensed and installed capacity as under:—

Item	Year of commencement	Licensed capacity per annum (tonnes)	Installed capacity per annum (tonnes)
Acetate filament yarn	1954	3,600	3,200
Acetate staple fibre . .	1966	500	800
Total		4,100	4,000

PRODUCTION

Man-made Fibre/Yarn, Raw Materials Production (Tonnes)

Item	1980	1981	1982
Viscose Filament Yarn	41,483	40,191	35,861
Viscose Tyre Yarn	14,245	14,065	10,829
Regular Viscose Fibre	69,317	85,639	49,018
Modal Fibre . .	5,321	8,565	3,462
Acetate Filament Yarn	1,952	1,595	1,870
Acetate Staple Fibre	111	298	331
Czepramonium Filament Yarn . .	—	—	—
Nylon Filament Yarn	19,929	22,103	26,272
Nylon Tyre Yarn . .	10,524	13,620	16,483
Nylon Staple Fibre . .	—	—	—
Polyester Staple Fibre	22,665	26,754	28,115
Acrylic Staple Fibre	7,890	13,034	16,086
Polypropylene Filament Yarn . .	—	—	—
Polyester Filament Yarn	9,251	14,780	19,241
Caprolactum . .	13,945	N.A.	10,621
Dimethylo Terephthatate	25,305	N.A.	23,242

Employment : The man-made fibre/yarn industry has given direct employment to 47,125 persons. In addition to that, it generates a vast number of indirect employment opportunities in the tertiary sector.

The detailed break-up is given below :—

Sector	No. of persons employed
Viscose filament yarn	23,446
Rayon tyre yarn	4,057
Viscose staple fibre	4,622
Acetate filament yarn-fibre	1,576
Cellulose fibre industry total . .	33,701
Nylon & Polyester filament yarn . .	13,722
Polyester staple fibre	3,905
Synthetic fibre industry total . .	17,627
Total man-made fibre industry . .	51,328

Research & Development: The Research and Development problems confronting the industry are being mostly handled by the Silk and Art Silk Mills' Research Association (SASMIRA), Sasmira Marg, Worli, Bombay 400025, National Laboratories, and technical institutes. SASMIRA conducts research, provides technical services, testing and offers training facilities in the technology of man-made fibre and textiles besides management. The main objective of research and development work being undertaken in India is the need to catch up with the developments in this area in the world at the shortest possible time.

(D) Rayon Tyre Yarn: At present there are three units engaged in the production of rayon tyre yarn having licensed and installed capacity of 20,800 tonnes and 20,050 tonnes respectively per annum as under:—

Name of the Unit	Location	Year of commencement	Licensed capacity per annum (Tonnes)	Installed capacity per annum (Tonnes)
Century Rayon	Shahad-Kalyan (Maharashtra)	1963	6,800	6,800
National Rayon Corporation Ltd. . .	Mohone-Kalyan (Maharashtra)	1961	7,000	7,000
Shriram Rayons	Kota (Rajasthan)	1965	7,000	6,250
Total			20,800	20,050

(E) Modal Fibre: At present there are two units engaged in the production of Modal fibre having licensed capacity of 17,000 tonnes per annum as under: —

Name of the Unit	Location	Year of commencement	Licensed capacity	Installed capacity
Highwet Modulus Tungabhadra Ltd. . .	Karnataka	N.A.	10,000	N.A.
Polynosic Staple Fibre South India Viscose Ltd.	Coimbatore (Tamil Nadu)	N.A.	7,000	N.A.
Total			17,000	

EXPORTS

Exports of rayon and synthetic textiles rose from Rs. 186 million to only Rs. 399 million between 1975-76 and 1979-80. During 1980-81 the exports fell marginally to Rs. 390 million. The break-up is as follows:

(Rs. million)

Item	1975-76	1979-80	1980-81	1981-82	1982-83
Viscose filament yarn fabrics	96	117	82	54	54
Spun rayon fabrics	9	26	16	13	22
Nylon fabrics	39	40	89	35	25
Polyester & Polyester blended	9	68	74	62	47
Mixed fabrics	5	36	28	44	49
Garments & made ups	7	89	61	123	331
Hosiery & Knitwear	12	1	7	29	25
Yarn, Tyrecord & miscellaneous items	9	22	33	43	28
Total	186	399	390	403	577

IMPORTS

The imports of Man-made fibres/yarns during 1980 were 55,768 tonnes valued at Rs. 766 million as against 73,143 tonnes worth Rs. 993 million in 1979.

Item	1979		1980	
	Quantity (tonnes)	Value (Rs. million)	Quantity (tonnes)	Value (Rs. million)
Viscose Filament Yarn	3,176	72	1,245	35
Czepramonium Filament Yarn	481	20	138	7
Nylon Filament Yarn	2,008	47	771	24
Polyester Filament Yarn	3,873	80	6,140	128
Regular Viscose fibre staple	46,721	554	31,081	412
Polynosic staple fibre	5,726	84	5,927	92
Highwet Modulus fibre	189	3	—	—
Nylon staple fibre	165	3	89	3
Polyester staple fibre	5,214	61	7,566	7
Acrylic staple fibre	5,057	57	1,412	19
Nylon tyre yarn	533	12	1,399	39
Caprolactum	7,090	90	14,647	215
D.M.T.	6,354	50	4,030	32

SILK

SERICULTURE (culture of silkworm) and the weaving of silk had been in vogue in China from remote times, dating back to 2640 B.C. Empress Si Ling-chi not only encouraged the culture of the silkworm but also developed the process of reeling from the cocoon, a closely guarded secret for 3,000 years. She attached so much value to silk that death was the penalty for exporting silkworm eggs. But about 550 A.D. some foreigners managed to succeed in taking cocoon to Constantinople. They placed the eggs of the silkworm and the seeds of the mulberry tree in a hollow staff. China has been famous from ancient times for shuttleloom and India, Greece and Europe for handloom. Japan and China now lead in raw silk production with India, Italy and France following them.

Sericulture in India falls into two sectors, mulberry and non-mulberry. The mulberry silk industry is better organised and accounts for nearly 90 per cent of the natural silk production. The non-mulberry sector comprises *tusar, eri* and *muga* silk. India is the only country in the world which produces all the four commercially known varieties of natural silk.

LOCATION OF THE INDUSTRY: Andhra Pradesh: A. P. produces mulberry and *tasar* raw silk. Mulberry in the Anantapur and Chittoor districts, and *tasar* in the forest regions along the banks of the river Godavari in Karimnagar, Warangal, Khammam and Adilabad districts. New areas in Srikakulam, Vizag, Medak and Hyderabad districts have also been selected for silk production. The State plans to increase mulberry acreage to over 57,000 hectares by the end of 1984-85 from the present level of 33,603 hectares.

Assam: The State produces *muga, eri* and mulberry raw silk mostly in Lakhimpur, Dibrugarh, Kamrup and Nowgong districts. Sibsagar is prominent for *muga* production. Recent investigations show possibilities for producing oak *tasar* silk in Garampani area.

Due to the formation of Meghalaya, most of the sericultural centres were bifurcated.

Bihar: Bihar ranks first in the production of *tasar* with nearly 80 per cent of production mainly in the districts of Hazaribagh. Ranchi, Singhbhum, Palamau, Bhagalpur, Begusarai, Monghyr and Santhal Parganas.

Jammu & Kashmir: The univoltine mulberry silk industry is mainly located in Anantnag, Baramulla and Srinagar in Kashmir valley and Udhampur, Doda, Rajouri, Poonch, Kathua and Jammu in Jammu province.

Karnataka: Karnataka is the biggest multivoltine mulberry silk producing State in India contributing about 60 per cent of the total production. Bivoltine rearings have been introduced of late, during all seasons of the year. The industry is concentrated in the districts of Bangalore, Kolar, Tumkur, Mysore and Mandya and to a small extent in Dharwar, Belgaum and Raichur. It is found feasible to have *tasar* production in Belgaum, Karwar, Shimoga, Chickmagalur, South Canara, Mysore, Coorg, Dharwar and Bellary districts. Ericulture has been introduced at Koila and Gerukatte, both in South Canara district. The State Government have initiated a World Bank aided sericulture development project involving an outlay of Rs. 800 million, which aims at doubling the production of raw silk over the levels existing before initiation of the project, to 4,500 tons during the next 5 years, and generating additional employment to 250,000-man years per annum at the end of 5-year period.

Kerala: Two units have been set up in Kottayam by Khadi Gramodyog Board for production of silk yarn.

Madhya Pradesh: The State is the second largest producer of *tasar* silk in the country. It is largely based in the districts of Bastar, Bilaspur, Raigarh and Surguja and to a small extent in Ambikapur, Raipur, Mandla, Balaghat and Jhabua districts. Mulberry is also cultivated to a small extent in Dhar, Indore, Sehore and Hoshangabad districts.

Maharashtra: Bhandara and Chandrapur districts have traditional *tasar* culture and there is one *tasar* seed farm at Armori. Mulberry *(Tuti)* has been successfully introduced in Satara and Nasik districts. Vast areas on either bank of the river Pravara now lying fallow also hold scope for development of mulberry sericulture.

North-Eastern Council States: The north-eastern States comprising of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram and Nagaland hold out scope for large-scale development of the non-mulberry sector, more particularly oak *tasar* in Manipur, Mizoram, Nagaland and Garampani area of Assam. Ericulture is also largely practised in Assam, Arunachal Pradesh, Meghalaya, Mizoram and Tripura. Mugaculture is confined to Assam and parts of Meghalaya. Mulberry sericulture is confined to certain pockets of Assam, Manipur, Mizoram and Tripura. Under the plan programme, expansion of mulberry silk industry in these States has been taken up.

Orissa: *Tasar* is concentrated in Mayurbhanj and Keonjhar and Sundargarh districts. Besides ericulture, mulberry sericulture is also practised to a limited extent.

Punjab: Mulberry silk is produced mainly in the districts of Amritsar, Gurdaspur, Hoshiarpur and to some extent in Patiala, Ropar and Ludhiana.

Tamil Nadu: The sericultural industry is practised in the districts of Dharmapuri, North Arcot, Salem, Tirunelveli, Periyar, Madurai, Tanjore, Coimbatore and South Arcot. The State Government has a programme to increase mulberry production over about 41,000 hectares by the end of 1984-85 from the existing level of about 22,245 hectares.

Uttar Pradesh: Sericulture industry has been organised on cooperative lines both in the rearing and reeling sectors. The industry is extensively practised in the districts of Dehra Dun, Saharanpur, Nainital, Almora, Bahraich, Tehri Garhwal, Paurigarhwal and to a small extent in the districts of Etawah, Gorakhpur, Bijnore, Moradabad, Gonda, Rampur, Deoria, Meerut, Chamoli, Pithoragarh and Uttarkashi. Seasonal conditions permit raising of two bivoltine cocoon crops and one multivoltine cocoon crop per annum, the latter being raised mainly in the foothills. The State also holds scope for large-scale introduction of oak *tasar* culture in the hill districts fringing the Himalayas. Already a beginning has been made for systematic development of the oak *tasar* industry in the State in collaboration with the Board's Regional Research Station functioning at Bhimtal. Development of tropical *tasar* in Mirzapur district for the benefit of tribal inhabitants has been introduced in recent years.

West Bengal: The State occupies a prestigious position as a producer of both mulberry and *tasar* silks. It is one of the major mulberry silk producing State in the country accounting for nearly 12 per cent of the total output. The industry is practised mainly in the districts of Malda, Murshidabad, Birbhum, Midnapore and Bankura and to some extent in Nadia and West Dinajpur districts. Total area under mulberry is around 11,206 hectares.

Production of *tasar* silk is confined to the districts of Purulia, Midnapore and Birbhum. Ericulture is practised in Jalpaiguri and Cooch-Behar districts. Production of *tasar* and *eri* silk yarn is presently around 4,000 and 7,000 kgs. respectively.

Himachal Pradesh: The State rears univoltine mulberry silkworms in Kangra and Mandi districts. The other regions where sericulture is practised are Una/Hamirpur and Nahan districts. Oak *tasar* rearing is also practised in the forests around Bir.

Manipur: Manipur has both mulberry and *eri* silk cultivation and a potential for *tasar* culture. The Government has launched a project for large-scale development of oak *tasar* for the economic emancipation of tribal inhabitants. A quantity of 20,0000 kg and 25,000 kg. oak *tasar* silk has been produced respectively during 1981-82 and 1982-83. The target is to produce 50,000-kg. oak *tasar* silk by the end of the VI Plan (1984-85).

Tripura: Sericulture has been recently introduced. The State holds promise for large-scale development of mulberry silk industry.

Production & Consumption of Raw Silk

(in '000 kgs.)

Year	Mulberry	Non-Mulberry	Total	Imports@	Consumption
1977-78	3,186	525	3,711	162	3,873
1978-79	3,752	425	4,177	176	4,353
1979-80	4,193	612	4,805	366	5,171
1980-81	4,593	448	5,041	404	5,445
1981-82	4,801	448	5,249	193*	5,442
1982-83	5,488	489	5,977	251*	6,228

@ Source: DGCI & S, Calcutta.
*Refers to import by Central Silk Board.

RANKING IN THE WORLD MARKET: With a production of 5,488 tonnes of mulberry silk and 489 tonnes of wild silk in 1982-83, India ranked third among the silk producing countries of the world. However, India is the only country in the world which produces the famed golden *"muga silk"* and is also the second largest producer of *tasar* silk, next only to the People's Republic of China.

SPUN SILK INDUSTRY: India also produces silk-waste—a by-product of reeling sector, which constitutes the basic raw material for the spun silk industry. The total production of silk-waste during 1982-83 was 1,921 tonnes mulberry and 132 tonnes non-mulberry.

There are three spun silk mills, located at Channapatna in Karnataka, Jagi Road in Assam and Bhagalpur in Bihar having an installed spindleage of 7,500, 3,000 and 3,000 respectively.

Tariff Protection: Sericulture industry has been under tariff protection since 1934. The current rate of protective duty on raw silk is 30 per cent ad valorem plus 25 per cent auxiliary duty.

EXPORTS: Foreign exchange earnings from silk industry (in million Rs.) for the last five years: 1978-79—436.668; 1979-80—488.317; 1980-81—531.205; 1981-82—697.321; 1982-83—828.

Indian Silk Export Promotion Council, Regd. Office: 62, Mittal Chambers, Nariman Point, Bombay 400021.

IMPORTS: Imports of raw silk over the last six years (in million Rs.): 1977-78—26.500; 1978-79—28.477; 1979-80—55.541; 1980-81—65.400; 1981-82—39.100; 1982-83—55.400.

Central Silk Board: Central Silk Board is a statutory body, presently under the administrative control of the Ministry of Commerce. It has been entrusted with the overall responsibility of developing silk industry.

Sericulture is a cottage industry *par excellence*. With an agricultural base, industrial superstructure and an essentially labour intensive set up, sericulture is an effective tool for generating gainful employment. Presently, it provides whole-time and part-time employment to more than 4.5 million persons in the rural areas of the country.

The headquarters of the Board are located in Bangalore. The Board has set up 11 regional offices to ensure close coordination of Central and State efforts to develop the sericulture industry. *Head Office:* Central Silk Board, United Mansions, 2nd Floor, No. 39, Mahatma Gandhi Road, Bangalore 560001. Tele. Add.: CENTROSIL, Bangalore. Telex: 845-798 CSB IN.

Regional Offices & Regional Development Offices: (1) 102, Shakti sadana, K. H. Road, Bangalore 560027, Tele: 'SILKBOARD'; (2) Chatterjee International Centre, Room Nos. A-9 & A-10, 33-A, Chowringhee Road, Calcutta 700071, Tele: 'SILKBOARD'; (3) A-66, Naraina Indl. Area, Phase-1, New Delhi 110028, Tele: 'SILKBOARD'; (4) Air Cargo Complex, Sherwani Road, Srinagar 190001, Tele: 'SILKBOARD'; (5) Meghdoot, 95-B, Marine Drive, Bombay 400002, Tele: 'SILKBOARD'; (6) Regional Development Office, 25, Ashoknagar, Bhubaneswar 751009 (Orissa); (7) Regional Development Office, 120/567, Shivajinagar, Kanpur 208005 (U.P.); (8) 3-5/907/1, Himayath Nagar, Hyderabad 500029, Andhra Pradesh; (9) Regional Development Office, 36, 1st Main Road, C.I.T. Nagar, Madras 600035; (10) Regional Development Office, Christianbasti, Gauhati 781005 (Assam); (11) Mahesh Mati, Post & Dist. Malda (West Bengal).

Inspection Centres: The Board is in charge of preshipment inspection for which facilities are available at the regional offices, the regional development offices and the two centres listed below: (1) 44, D. N. Singh Road, Bhagalpur 812001 (Bihar), Tele: SILKBOARD'; (2) K61/158B, Rajdevi Katra, Bulanala, Varanasi 221001, Tele: 'SILKBOARD'.

RESEARCH AND SERVICE STATIONS: Mulberry silk sector: Central Sericultural Research & Training Institute, Srirampuram, Manandavadi Rd., Mysore South, Mysore 570008 (Karnataka); Central Sericultural Research & Training Institute, Berhampore 742101 (West Bengal); National Silkworm Seed Project, No. 29/6, 38th cross, 8th block, Jayanagar, Bangalore 560011 (Karnataka); Regional Sericultural Research Station, P.O. Kalimpong 734301 (West Bengal); Regional Sericultural Research Station, Coonoor 643101 (Tamil Nadu); Research Sub-Station, Mugur 571124 (Karnataka); Univoltine Research Sub-Station, Majra 248171, Via Dehra Dun (U.P.); Regional Sericultural Research Station, Pampore 192121 (Kashmir); Regional Sericultural Research Station, P.O. Panchkotaraj, Distt. Purulia (West Bengal); Regional Sericultural Research Station, Bihar Agricultural College, P.O. Sabour, Bhagalpur (Bihar); Sericultural Research Sub-Station, Ambari Falkata, Distt. Jalpaiguri (West Bengal); Sericultural Research Sub-Station, P.O. Simliguda, Koraput (Orissa); Regional Sericultural Research Station, Titabar 785632 (Assam).

New Regional Research Stations and Sub-Stations: Regional Research Station, Ranchi (Bihar); Regional Research Station, Kashipur (West Bengal); Research Sub-Station, Malda (West Bengal); Research Sub-Station, Bholpur (West Bengal); Regional Sericultural Research Station, Bangalore (Karnataka); Regional Sericultural Research Station, Kollegal (Karnataka).

Post-Cocoon Research: The gap in post-cocoon research has been filled up with the setting up of Central Silk Technological Research & Training Institute at 16(42), Vanivilas Road, Basavanagudi, Bangalore 560004. The Institute will undertake research in 5 major divisions in silk industry: (i) Silk Reeling & Spinning; (ii) Testing & Grading of raw silk; (iii) Wet Processing; (iv) Silk Weaving and (v) Silk Textile Engineering.

***Tasar* Silk Sector: Central *Tasar* Research & Training Institute, Nirvan No. 1, West End Park, Hehal Post. Ranchi 834005 (Bihar);** Regional *Tasar* Research Station, Bhimtal 263136 (U.P.); Regional *Tasar* Research Station, Batote 182143 (Jammu & Kashmir); Regional *Tasar* Research Station, Imphal 795001 (Manipur).

Inter-State *Tasar* Project: The Government of India have launched an inter-state *Tasar* project at a total cost of Rs. 105 million during the VI plan period in the tropical *tasar* producing states of Bihar, Madhya Pradesh, Orissa, Andhra Pradesh, Maharashtra, Uttar Pradesh, West Bengal and Rajasthan.

***Eri* and *Muga* Silk Sector:** Regional *Muga* Research Station, Mirja 781125, Boke Dist. (Assam). A Regional *Eri* Research Station is being set up at Nongpoh (Assam).

Price Stability Measures: The Board has established a raw material bank for *tasar* cocoons and raw silk at Chaibasa in Bihar. A similar Raw Material Bank for *muga* cocoons has since been set up at Sibsagar in Assam. For stabilisation of mulberry raw silk, the Board has been implementing a Price Stabilisation Scheme under which a Central Raw Material Bank for mulberry has been set up at Bangalore with Regional Raw Material Banks in other major mulberry silk producing states like Karnataka, West Bengal, Tamil Nadu and U.P. Additionally an intensive sericultural development project has been introduced in Malda (West Bengal) which also provides for undertaking price stabilisation measures for mulberry reeling cocoons.

Testing: A Central Silk Conditioning and Testing House has been established by CSB at Srinagar at Silk Factory premises, Silk Factory Road, P.O. Central Market, Srinagar 170009 (J&K).

Training: A fifteen-month post-graduate course is offered at the Central Sericultural Research and Training Institute, Mysore 570008, Central *Tasar* Research and Training Institute, Ranchi (Bihar), and Central Sericultural Research and Training Institute, Berhampore (West Bengal). The academic session commences on 1st July every year in respect of CSR & TI Mysore and Berhampore (West Bengal) and from 15th June in CTR & TI Ranchi (Bihar). The course includes 3 months' intensive training in the practice of sericulture both in the mulberry and non-mulberry sectors. The capacity of each Institute is to train 25 students every year. It also caters to foreign students. The Board has also been imparting training in improved technologies to farmers at its research institutes and attached extension centres for two months with a monthly stipend of Rs. 250.

International Centre for Training & Research in Tropical Sericulture: Under the Indo-Swiss Co-operation Programme, the Central Silk Board has set up an International Centre for Training & Research in Tropical Sericulture at Mysore. The Institute has facilities for imparting advance training in sericulture to 25 candidates from various developing countries in Asia including 10 candidates from Indian States. The duration of the course is 12 months and it has commenced functioning from 1st October 1980. The second batch is undergoing the training course presently.

INTERNATIONAL LIAISON: CSB is a full-fledged member of both the International Silk Association, Lyon, France and the International Sericultural Commission, La Mulatiere, France—the two major international forums concerned with the development of silk industry.

(See also "Commercial Firms—Manufacturers").

COTTON AND COTTON TEXTILES

COTTON has been cultivated in India for 26 centuries. Significantly, Marco Polo in the 13th century A.D. and Tavernier in the 17th century wrote in glowing terms on the excellence and perfection of Indian textiles. Interestingly, the world-famous Dacca muslin was known for its beauty and finesse and six yards of the best variety could easily pass through a ring. Even before the discovery of America, the natives of tropical America were growing Sea Island cotton and using its fibres.

Originally, all cotton cultivated in India grew on the perennial type of plant known as G. Arborium Var Neglectum, which was of Forma Bengalenses in north and western India and of Forma Indicum in central and south India. It is believed that the 'webs of the woven wind'—the world-famous Dacca muslin was made from Forma Bangalenses.

Until about the middle of the 18th century Indian textiles reigned supreme in foreign markets. But during the Industrial Revolution in the West, Indian cloth began to lose its overseas market. Realising the significance of the revolution the East India Company changed its role of an exporter of cloth to an exporter of cotton and encouraged a wider cultivation of cotton in India. Thus began the cultivation of cotton as a commercial crop.

Area Under Cultivation: India has the largest area in the world under cotton cultivation, which is about one fourth of the total world area.

The area ('000 hectares) under cotton cultivation during last three years was: 1977-78: 7,866; 1978-79: 8,087; 1979-80: 8,080

PRODUCTION

America leads in the woven cotton output, but Brazil, Egypt and India are important producers.

Cloth is now woven with cotton mixed with rayon and nylon. Cotton treated with caustic soda results in a high degree of lustre resembling silk. The product is called mercerized cotton, after John Mercer, its discoverer.

The production of cotton during 1979-80 season amounted to 7.70 million bales. With a carryover of 2.73 million bales, the total supply in the cotton season 1979-80 worked out to 10.43 million bales.

The production ('000 bales of 170 kgs. each) of cotton during last three years was: 1978-79: 7,927; 1979-80: 7,698; 1980-81: 7,800. (Refer to the chapter on 'Food & Agriculture' for the Statewise break-up of production).

LOCATION OF THE INDUSTRY

State-wise Installed Capacity as on January 1, 1982

State/Zone	Number of Mills			Installed spindles (in thousands)			Installed looms
	Spinning	Composite	Total	Spinning	Composite	Total	
Andhra Pradesh	31	2	33	732	77	809	1,246
Assam	2	—	2	37	—	37	—
Bihar	4	2	6	73	25	98	596
Gujarat	**24**	**90**	**114**	**476**	**3,594**	**4,070**	**64,342**
a) Ahmedabad City	4	63	67	51	2,641	2,692	48,280
b) Rest of Gujarat	20	27	47	425	953	1,378	16,062
Haryana	11	2	13	210	58	268	978
Jammu & Kashmir	1	—	1	28	—	28	—
Karnataka	21	11	32	387	456	843	6,413
Kerala	22	5	27	513	90	603	1,168
Madhya Pradesh	7	17	24	149	617	766	12,992
Tamil Nadu	**213**	**24**	**237**	**4,301**	**1,257**	**5,558**	**10,430**
a) Coimbatore	99	15	114	1,988	649	2,637	4,290
b) Rest of Tamil Nadu	114	9	123	2,313	608	2,921	6,140
Maharashtra	**27**	**78**	**105**	**700**	**4,270**	**4,970**	**77,511**
a) Bombay	1	53	54	56	3,393	3,449	61,924
b) Rest of Maharashtra	26	25	51	644	877	1,521	15,587
Orissa	4	1	5	77	51	128	1,014
Punjab	9	2	11	254	74	328	1,240
Rajasthan	14	7	21	299	219	518	2,939
Uttar Pradesh	**26**	**15**	**41**	**561**	**773**	**1,334**	**13,273**
a) Kanpur	—	10	10	—	510	510	11,043
b) Rest of Uttar Pradesh	26	5	31	561	263	824	2,230
West Bengal	23	18	41	469	587	1,056	9,490
Delhi	—	4	4	—	175	175	3,370
Pondicherry	2	3	5	59	105	164	2,679
Goa	1	—	1	26	—	26	—
Total	**442**	**281**	**723**	**9,351**	**14,428**	**21,779**	**209,681**

GENERAL

Yield per Hectare: In spite of India having the largest area under cotton cultivation, the production accounts for about one tenth of the world cotton output. Indian production has been on an average one bale (170 kgs.) per hectare, against 4 bales produced in Egypt.

The Hybrid-4 is credited with a record yield of 8,700 kgs. of *kapas* per hectare in Bellary district of Karnataka. The average yield from this strain is placed at 3,500 to 4,000 kgs. per hectare, while the average yield per hectare of other varieties is 925 kgs. of *kapas* in irrigated areas and 250 kgs. in non-irrigated areas.

Cotton Corporation of India Ltd.: Refer to the chapter on 'Govt. Industrial Undertakings'.

Research: Established in 1924, the Cotton Technological Research Laboratory at Adenwala Road, Matunga, Bombay 400019, offers facilities for fibre testing and spinning quality evolution of cotton with the result that a large number of improved varieties have been evolved and extended for commercial cultivation.

The laboratory also offers training in cotton technology to sponsored candidates from the textile industry.

Regional Cotton Research Station at Coimbatore, Tamil Nadu, of the Indian Agricultural Research Institute does research on the plant breeding aspect of cotton.

Besides this laboratory numerous other agricultural universities conduct research on cotton.

EXPORTS OF COTTON

Year	'000 bales of 170 kgs. each	Value Rs. million
1975-76	427	582.30
1976-77	39	657.70
1977-78	10	46.00
1978-79	120	220.00
1979-80	450	N.A.
1980-81	697	N.A.
1981-82	375	N.A.

IMPORTS & CONSUMPTION

Year	Imports '000 bales	Value Rs. Million	Consumption '000 bales		
			Indian	Foreign	Total
1975-76 ..	166	261.30	7,331	214	7,545
1976-77 ..	622	1,836.50	6,360	392	6,752
1977-78 ..	616	1,544.60	6,070	546	6,616
1978-79 ..	31	N.A.	6,835	146	6,981
1979-80 ..	—	—	7,358	54	7,412
1980-81 ..	—	—	7,668	10	7,678
1981-82 ..	—	—	7,074	49	7,123

Cotton Yield in Selected Countries: Average yield 1978-79 to 1980-81 (kgs. per hectare): U.S.A.: 512; U.S.S.R.: 919; Brazil: 282; Mexico: 955; Egypt: 951; Peru: 662; China: 504; Sudan: 286; Syria: 845; Pakistan: 313; India: 169; World average: 425.

COTTON TEXTILES

The cotton textile industry was the base on which Indian industrialisation was built more than a hundred years ago.

The industry was started largely as a spinning enterprise and gradually developed into a full-fledged composite one. The first power-mill in Bombay was set up by a Parsi pioneer, Mr. Kavasji Nanabhai Davar, in 1854.

Following table shows the break-up according to ownership and present status of the mills which are not privately owned.

	Number of Mills	Installed spindles (Million)	Installed Looms (Thousand)
Government run Mills (N.T.C.)	111	3.38	47
Other than N.T.C.	29	0.71	6
Co-operative Mills	62	1.55	—

PRODUCTION

The actual production of cotton yarn and cloth by the mill sector is as follows:-

Year	Yarn in '000 kg.	Cloth in '000 metres					
		Coarse	Medium B	Medium A	Fine	Superfine	Total
1976 ..	1,005,900	553,400	1,130,000	1,788,000	163,000	246,000	3,880,000
1977 ..	846,000	413,000	921,000	1,601,000	95,000	193,000	3,223,000
1978 ..	912,000	442,000	910,000	1,684,000	86,000	129,000	3,251,000
1979 ..	952,000	414,000	954,000	1,651,000	65,000	122,000	3,206,000
1980 ..	1,058,000	428,000	898,000	1,952,000	70,000	128,000	3,476,000
1981 ..	1,015,000	348,000	751,000	1,879,000	47,000	122,000	3,147,000

EXPORTS

Exports of mill-made Cotton Textiles—Fiscal Year Basis

Year	Cotton Fabrics		Cotton Yarn		Cotton Apparel	Cotton Hosiery	Other Cotton Manufactures	Total
	Quantity (Million Sq. Metres)	Value (Million Rs.)	Quantity (Million Kgs.)	Value (Million Rs.)	Value (Million Rs.)	Value (Million Rs.)	Value (Million Rs.)	Value (Million Rs.)
1976-77 ..	563.31	2,011.80	18.52	310.00	2,571.00	141.10	526.90	5,560.80
1977-78 ..	266.32	1,075.29	10.42	225.30	2,408.60	216.70	561.40	4,487.29
1978-79 ..	310.99	1,342.00	6.25	151.90	3,514.50	139.20	579.60	5,727.20
1979-80 ..	393.72	1,873.80	5.80	150.50	3,651.40	234.10	643.80	6,553.60
1980-81(P)	300.00	1,644.20	7.00	213.90	4,294.60	461.60	571.60	7,185.90
1981-82(P)	225.42	1,566.70	4.70	152.40	4,134.90	339.00	670.30	6,863.30

(P) Provisional.

No. of Persons Employed: It provides direct employment to about 1.19 million (13.8 per cent of all factory labour totalling 8.61 million), indirect employment runs into several millions.

Capital Investment: Estimated at Rs. 13,000 million and the annual value of the output amounts to Rs. 36,000 million.

Ranking in the World: India occupies second place in terms of spindles (after China) and fourth in terms of cotton consumption (after China, U.S.S.R. and U.S.A.).

Cotton Textile Export Promotion Council: (Address: Engineering Centre, Mathew Rd., Bombay 400004). It is an autonomous body and a non-profit making organisation and was set up in 1954 for the promotion of exports of mill-made cotton yarn and piece goods, cotton manufactures and all hosiery and readymade garments.

GENERAL

Per Capita Availability: The estimated per capita availability of cotton cloth in 1981 was 10.66 metres as against 11.25 metres in 1980, 10.22 metres in 1979, 10.21 metres in 1978 and 9.57 metres in 1977.

PRODUCTION

Readymade Garments: India's exports of readymade garments had picked up swiftly in recent years. The export value was hardly Rs. 140 million in 1971-72. It rose to Rs. 1,450 million in 1975-76, Rs. 2,571 million in 1976-77, Rs. 3,651 million in 1979-80 and Rs. 4,295 million in 1980-81.

National Textile Corporation Ltd. (Details in the chapter on 'Govt. Industrial Undertakings'.) A public sector undertaking. It was set up in 1968 to take over and run 'sick' textile mills in the country. Similar corporations are also set up in the State sector of Gujarat, Kerala, Maharashtra, Madhya Pradesh, Tamil Nadu and Uttar Pradesh.

Indian Cotton Mills' Federation (ICMF): (Address: Textile Centre, 34, P. D'Mello Rd., Poona St., Wadibunder, Bombay 400009). Established in March 1958. It is the apex body representing the cotton mill industry of India. The object of ICMF is to watch over, protect and promote the interests of the industry.

Research: Extensive research on cotton textiles is carried out by the following organisations: (1) Ahmedabad Textile Industry's Research Association (ATIRA), P.O. Polytechnic, Ahmedabad 380015, Gujarat. It also has several regional research stations in Gujarat doing research on cotton. (2) Bombay Textile Research Association, Ghatkopar, Bombay 400077. (3) Shri Ram Institute for Industrial Research, 19 University Road, New Delhi 110007. (4) South India Textile Research Association, Coimbatore 641014, Tamil Nadu. (5) Textile and Allied Industries Research Organisation, Kala Bhavan, Vadodara 390001, Gujarat. (6) Northern India Textile Research Association, 1-119, Himalaya House, Kasturba Gandhi Marg, New Delhi 110001.

Publications: (1) *Texprocil Bulletin* (fortnightly), brought out by the Cotton Textile Export Promotion Council; (2) *Indian Cotton Mills Federation Journal* (monthly), Textile Centre, 34, P. D'Mello Rd., Poona St., Bombay 400009; (3) *Indian Textile Bulletin* brought out by the office of the Textile Commissioner; (4) *Handbook of Statistics on Cotton Textile Industry*, Indian Cotton Mills Federation Textile Centre, P. D'Mello Rd., Bombay 400009.

JUTE

THE Indian Jute mill industry is the biggest earner of foreign exchange for India. The first power-driven Jute mill was established in Rishra near Calcutta in 1859 and thereafter the industry made rapid progress. By 1885 the Indian industry with its supremacy in the international markets firmly established, had 6,700 looms in production. Loomage shot up to 30,685 in 1909, to 50,354 in 1927 and to 65,762 in 1949. For a decade or so the industry produced the simplest variety of sacking cloth. Product diversification continued with webbings, cotton bagging, linoleum hessian, jute carpets and rugs, carpet backing cloth, and decorative jute fabrics gradually added to the range. The industry has already modernised up to the spinning stages of manufacture. This, coupled with the improved technology and other rationalisation measures adopted by the industry, has helped it to increase production without increasing loomage. The Jute Corporation of India was set up by the Government of India in April 1971.

LOCATION OF THE INDUSTRY

Number of jute mill companies in operation on Jan. 1, 1981: West Bengal 55; Andhra Pradesh 4; Bihar 3; Uttar Pradesh 3; Madhya Pradesh 1; Assam 1; Orissa 1; Tripura 1; All India 69.

Area in hectares under raw jute cultivation: 1974-75: 673,100; 1975-76: 586,800; 1976-77: 737,000; 1977-78: 797,800; 1978-79: 884,000; 1979-80: 834,000; 1980-81: 942,000; 1981-82: 827,000.

The cultivation of raw jute is concentrated in three States—West Bengal, Bihar and Assam (For production refer to the Chapter on "Food & Agriculture").

Public Sector: Negligible (only one small mill each in Assam and Orissa have gone into production).

No. of Persons Employed: Over 2 million farmers in jute cultivation and about 400,000 persons in jute industry and trade.

No. of Strikes & Lock-outs: 1975: 78; 1976: 24; 1977: 44; 1978: 78; 1979: 6; 1980: 10; 1981: 17.

No. of Man-days Lost: 1975: 8.77 million; 1976: 2.56 million; 1977: 1.00 million; 1978: 1.60 million; 1979: 6.51 million; 1980: 0.40 million; 1981: 4.20 million.

Capital Investment in the Industry: about Rs. 3,000 million.

Average Annual Sales: about Rs. 5,000 million.

Ranking in the World Market: India is the largest producer of raw jute in the world, followed closely by Bangladesh.

PRODUCTION

Following is the production of jute goods for mills reporting to the Indian Jute Mills Association accounting for about 90 per cent of total industry (in '000 tonnes).

1974-75: 939; 1975-76: 1,136; 1976-77: 1,040; 1977-78: 1,008; 1978-79: 909; 1979-80: 11.54; 1980-81: 11.91; 1981-82: 11.08.

The all India yield per hectare in bales (1 bale = 181.43 kgs.): 1974-75: 6.73; 1975-76: 7.59; 1976-77: 7.26; 1977-78: 6.73; 1978-79: 7.32; 1979-80: 7.28; 1980-81: 6.92; 1981-82: 8.24.

CONSUMPTION

(Million bales)

	1979-80	1980-81	1981-82
Mills consumption	7.93	7.93	7.29
Exports	0.30	0.40	0.29
Domestic consumption	—	—	0.30

EXPORTS: Jute goods are the country's largest foreign exchange earner. The table below gives the exports of jute and the foreign exchange earned in the last three years.

Year July-June	Exports ('000 tonnes)	Value (Rs. in million)
1978-79	317	1,701.8
1979-80	372	2,659.8
1980-81	558	3,991.0
1981-82	369	2,165.0

GENERAL

Yield per hectare: The average yield of jute in India is about 1,255 kgs. per hectare during 1980-81.

Loomage: The exact world loomage is not known, but rough estimate puts it at 109,275. The total number of looms in India on January 1, 1980 was 44,516. Bangladesh was last reported to have 25,907 looms.

Directorate of Jute Development (Govt. of India): MS Bldgs., Nizam Palace Campus, 234/4, Acharya J. B. Road, Calcutta 700 020.

National Jute Manufacturers' Corporation Ltd.: 4, Netaji Subhas Rd., Calcutta 700 001.

Indian Jute Mills' Association: 6, Netaji Subhas Road, Calcutta 700 001.

Office of the Jute Commissioner (Govt. of India): 20, Abdul Hamid St., Calcutta 700001.

Training: The industry has provided for elaborate and scientific technical training in the spinning and weaving of jute, quality control of jute goods, and maintenance of machinery at the **Institute of Jute Technology** at 35, Ballygunge Circular Rd., Calcutta 700019.

Research: The industry's needs for research and development are served by the **Indian Jute Industries' Research Association (IJIRA),** 17, Taratola Rd., Calcutta 700 088, which takes care of (1) Basic research, (2) Applied investigations, (3) Technical Service, (4) Product development, and (5) Raw jute development.

Jute Agricultural Research Institute: Nilganj, Barrackpore, West Bengal also researches into the problems of cultivation of raw jute and allied fibres.

Ten Largest Mill Companies on the basis of loomage are all situated in West Bengal as on Jan. 1, 1982.

Name of Mills	*Address*	*No. of looms*
1. Hukumchand Jute Mills Ltd.	Hazinagar, 24 Parganas	1,496
2. National Co. Ltd.	Sankrail, Howrah	1,454
3. New Central Jute Mills Co. Ltd.	Budge Budge, 24 Parganas	1,419
4. Ganges Manufacturing Co. Ltd.	Bansberia, Howrah	1,299
5. Anglo-India Jute Mills Co. Ltd.	Kanknarrah, 24 Parganas	1,269
6. Fort Gloster Industries Ltd.	Bauriah, Howrah	1,224
7. Shree Hanuman Jute Mills	Ghusuri, Howrah	1,175
8. Samnuggur Jute Factory Co. Ltd.	Bhadreswar, Hooghly	1,020
9. Kamarhatty	Kamarhatty, 24 Parganas	998
10. Baranagore Jute Factory Co. Ltd.	Barahagore, Calcutta 700035.	971

(See also under "Commercial Firms"—**Manufacturers.**)

WOOLLEN

WOOL is, after cotton, an important money crop. Its tensile strength is one-fourth greater than cotton and its crimp permits it to enmesh still air. Elasticity, resulting from the molecular structure of wool, makes the wool fabric grease resistant. Wool is perhaps the first fibre to be woven into a textile. Reference to wool fabric in Egypt, Babylon and Ninevah indicates its ancient roots. Romans as early as 200 B.C. improved their flocks which were the projenitors of the famed Spanish Merino sheep. The U.S. leads in output followed by Australia, New Zealand, U.S.S.R., Britain, China and India.

State-wise distribution of installed capacity in 1982
Organised Mills

State/Union Territory	No. of Mills			Installed Capacity						
	Spinning	Composite	Total	Worsted	Shoddy	Woollen	Others	Total	Power-looms	Combs
Gujarat ..	1	2	3	10,340	880	5,232	—	16,452	194	27
Himachal Pradesh ..	2	—	2	—	2,980	—	—	2,980	—	—
Jammu & Kashmir ..	7	2	9	12,318	1,200	2,506	—	16,024	31	—
Karnataka State ..	2	1	3	2,000	—	1,200	11,124	14,324	243	—
Maharashtra ..	20	9	29	63,260	15,464	8,468	—	87,192	720	94
New Delhi ..	13	—	13	2,464	4,800	162	—	7,426	—	—
Punjab ..	89	16	105	113,711	17,804	29,489	—	161,004	860	23
Haryana ..	18	—	18	4,670	5,250	7,128	—	17,048	—	—
Rajasthan ..	21	1	22	2,800	5,400	7,656	—	15,856	10	—
Uttar Pradesh ..	13	1	14	10,936	3,708	12,200	—	26,844	260	44
West Bengal ..	3	3	6	7,512	1,620	1,380	—	10,512	85	75
Total ..	189	35	224	230,011	59,106	75,421	11,124	375,662	2,403	263

In India, the first unit was set up more than a century ago. Till the beginning of the fifties there was no significant expansion for there were only 16 units in 1950. At present there are 380 mills with an installed capacity of 444,138 spindles.

The powerloom capacity of the woollen industry is 5,000 nos. and the combing capacity is 53.75 m.lbs.

LOCATION OF THE INDUSTRY

Public Sector: Of the 224 units only 3 are in the public sector. The names and addresses are as follows:

1. Rajasthan Government Worsted Spinning Mills, Churu, Rajasthan;
2. Kashmir Government Woollen Mills, Shirinbaugh, Srinagar, Jammu & Kashmir;
3. Government Spinning Mills, Nowshera, Srinagar, Jammu & Kashmir.

No. of Persons Employed: 100,000 in organised sector and 400,000 in decentralised sector.

Wool and Woollen Export Promotion Council: Address: Churchgate Chambers, 5, New Marine Lines, Bombay 400020.

The trend in imports of raw wool and other raw materials during 1979-80 to 1981-82 was as follows: (value in million Rs.): 1979-80: 293.11; 1980-81: 415.5; 1981-82: 620; 1982-83: 715.

EXPORTS

EXPORT OF WOOL AND WOOLLENS FROM INDIA

(Figures in million)

Items	Units	1978-79		1979-80		1980-81		1981-82	1982-83
		Qty.	Value (Rs.)	Qty.	Value (Rs.)	Qty.	Value (Rs.)	(Provisional) Value Rs.)	Value (Rs.)
Raw Wool	kgs.	.104	1.577	.054	.894	.008	.072	Neg.	Neg.
Woollen Carpets/ Druggets	sq.Mts.	3.530	962.800	4.555	1,298.184	5.225	1,579.660	1,750.000	2,200.000
Woollen/Acrylic Hosiery Goods		2.200 (kgs.)	251.737	5.495 (Nos.)	383.138	8.962 (Nos.)	610.000	1,000.000	1,150.000
Woollen/Worsted Fabrics		.770 (Mts.)	26.217	1.406 (sq.mts)	42.383	.954 (sq.mts)	33.779	70.000	100.000
Woollen/Worsted Readymade Garments	nos.	.347	23.333	.256	19.434	.352	26.097	30.000	40.000
Woollen Blankets	kgs.	1.907	51.934	.914	34.584	1.734	61.599	80.000	120.000
Woollen Shawls	nos.	.271	22.080	.199	20.625	.208	19.533	15.000	20.000
Woollen/Worsted Hosiery yarn/Weaving yarn/Knitting wool	kgs.	.017	1.960	.021	1.619	.030	2.987	-	-
Wool Rags/Waste	kgs.	.013	.013	.002	.076	Nil	Nil	-	-
Wool Tops	kgs.	.002	.044	Nil	Nil	Nil	Nil	-	-
Wool Hair Beltings/ Felt	kgs.	.008	.433	Nil	Nil	Nil	2.106	-	-
Others	Rs.	Nil	Nil	Nil	.366	Nil	.694	-	20.000
Total			1,342.228		1,801.303		2,336.527	2,960.000	3,650.000

Sources: 1. Statistics based on final figures published from D.G.C.I.S., Calcutta for the years 1978-79, 1979-80 and 1980-81.
2. 1981-82 and 1982-83 figures are provisional estimate.

IMPORTS

IMPORT OF RAW WOOL AND OTHER RAW MATERIALS BY THE INDIAN WOOLLEN INDUSTRY

(Figures in million

Items	1978-79		1979-80		1980-81		1981-82		1982-83	
	Qty.	Value (Rs.)	Qty.	Value (Rs.)	Qty.	Value (Rs.)	Qty.	Value (Rs.)	Qty.	Valu (Rs.
Raw Wool	13.330	305.118	13.150	293.113	17.971	415.543	23.000	620.000	26.500	715.0
Wool Rags/waste/synthetic waste	18.987	49.188	15.830	74.436	47.644	129.697	50.000	160.000	55.000	192.5
Wool Tops	.433	20.178	.109	7.880	1.110	71.946	3.320	210.000	5.000	320.0
Polyester Fibre	.409	3.381	.064	.985	.041	.583	.050	.710	.050	.7
Acrylic Fibre	.742	8.101	.231	3.335	.488	4.522	.500	4.650	.500	4.6
Nylon Fibre	.036	.741	.005	.069	.013	.236	.040	.726	.040	.7
Fine Animal Hair	.164	3.429	.118	5.485	.053	2.707	.100	5.100	.200	10.2
Viscose Staple Fibre	N.A.	N.A.	N.A.	N.A.	.426	5.538	.500	6.500	.600	7.8
Total Rs.		390.136		385.303		630.772		1,007.686		1,251.5

Sources: 1. Statistics upto 1980-81 are based on Directorate General of Commercial Intelligence and Statistics, Calcutta.
2. Statistics for the years 1981-82 and 1982-83 are provisional.

PRODUCTION

India's 42 million sheep produce about 35 million kgs. of raw wool each year. Fifty per cent of this is below 40s count. Some of it is exported and the rest used for making coarse garments and carpets.

Sheep Population and Raw Wool Production in some major Countries:

	Approx. Sheep population (In Mil. Nos) 1981-82	Approx. output of raw wool (In Mil. Kgs.) 1981-82
Argentina	32.5	168
Australia	137.9	716
France	13.01	24
Italy	9.16	13
New Zealand	70.4	363
U.K.	33.0	49
U.S.A.	13.0	51
U.S.S.R.	142.4	482
Total including other wool producing countries	1,087.1	2,887

Source: Statistics of Commonwealth Economic Committee.

GENERAL

Pashmina: Of the total 91,073 goats in Ladakh 70,000 are *Pashmina* bearing. A joint effort of the State and Central Governments is afoot to increase the size and production of *Pashmina* goats by cross breeding them with the Goran Altaksyia breed from U.S.S.R. and Angora bucks from Turkey.

With these measures the yield per goat is expected to increase from about 400 gms. at present to 1 kg. The maximum yield of *Pasham* wool recorded so far is 700 gms. the minimum being 200 gms. This means that the production of *Pasham* wool in Ladakh will increase from about 28,000 kgs. at present to 70,000 kgs. in due course.

A research project at Dhule, Maharashtra initiated by the Raymond Woollen Mills Ltd., Thane, spread over 4,100 hectares of forest land is engaged in intensive research to develop a sheep breed which will yield more wool per sheep. After several years of intensive research the farm has established a new breed of Indian Merino christened as "Gopal Merino".

Gujarat Sheep and Wool Development Corporation at Anand Bldg., Mirzapur Rd., Ahmedabad 380001, helps to produce quality wool by a cross-breeding programme. This has substantially reduced imports of quality wool.

Karnataka State Sheep & Wool Development Board, 12, Rashtriya Vidyalaya Rd., Bangalore 560004.

International Wool Secretariat at Dugal Estate, 193, Backbay Recl., Bombay 400001, is a non-profit organisation with headquarters in London. It helps the Indian Woollen Industry in all its problems such as economic, research, planning etc.

Research: Central Sheep and Wool Research Institute at Malpura (88 kms. from Jaipur) in Rajasthan, is run by the Indian Council for Agricultural Research. Situated on a 1,618 hectares farm, its main programme is research and training facilities in sheep husbandry, better utilisation of land, wool shearing, grading, testing, technology and processing. It also trains key personnel, instructors, supervisors, managers and research workers.

Two Divisions, Division of Fur Animal Breeding Garsa (Kulu), H.P., and Division of Carpet Wool and Karakul Pelt Production, Bikaner and one regional station at Mannavanur (Kodaikanal), Tamil Nadu are run by the Institute.

Wool Research Association at Akbar Camp Road, P.O. Sandoz Baug, Kolshet, Thane 400607, deals with research on wool yarn and fibre and its application to different commodities, improvement of the quality of fabrics etc.

Association: Indian Woollen Mills' Federation, Churchgate Chambers, 5, New Marine Lines, Bombay 400020.

Some Large Units: With their addresses and the number of powerlooms in brackets.

1. Bombay Fine Worsted Manufacturers, Castle Mills, Agra Rd., Thane 400601, Maharashtra (196).
2. The Raymond Woollen Mills Ltd., J.K. Bldg., Morarjee Marg, Ballard Est., Bombay 400038, Maharashtra (196).
3. Binny Ltd. (Bangalore Woollen, Cotton & Silk Mills Co. Ltd.), Agraharam Rd., Bangalore 560023, Karnataka (243).
4. New Egerton Woollen Mills Ltd. (British India Corpn. Ltd.), Dhariwal, Punjab (240).
5. Cawnpore Woollen Mills Ltd., Civil Lines, Kanpur 208001, Uttar Pradesh (260).
6. Shree Digvijaya Woollen Mills Ltd., Aerodrome Rd., Jamnagar 361003, Gujarat (114).
7. Modella Textile Industries P. Ltd., 4-C, Vulcan Insurance Bldg., Veer Nariman Rd., Bombay 400020 (120).
8. Shri Dinesh Mills Ltd., P.B. No. 65, Padra Road, Vadodara 390005 (80).
9. India Woollen Textile Mills P. Ltd., Chhcharta, Amritsar (123).
10. Oriental Carpet Mfrs. (India) Ltd., P.B. No. 34, G.T. Rd., Amritsar 143001 (100).

Raw Material: The average yield of sheep in India works out at about 0.90 kg. as against over 4 kgs. in Australia.

Publications: 'Wool and Woollens of India', Churchgate Chambers, 5, New Marine Lines, Bombay 400020 (Quarterly).

(See also "Commercial Firms" — Manufacturers)

OILSEEDS AND VANASPATI

OILSEEDS occupy an important place in the Indian economy and rank second (after foodgrains) as a farm commodity group. India is a major oilseeds growing country in the world, accounting for 10 per cent of the total output of vegetable oils and fats.

India is the largest producer of groundnut, rape and mustard and sesamum. It is second in respect of castorseed production, third in coconut production, fourth in cotton-seed and fifth in linseed.

India has a highly developed oil based industry employing more than 10 million persons. However, it is essentially a food-oil industry which accounts for as much as 83 per cent of the total supply of vegetable oils. Among the non-food uses, the bulk is consumed by the soaps and paints and varnishes industry.

Demand & Supply: The area and production of major oilseeds have more or less remained stagnant during the last decade.

This is evident from the fact that in 1962-63, major oilseeds were cultivated in 15.3 million hectares, in 1976-77, the area covered fell to 14.8 million hectares but improved to 15.5 million hectares in 1977-78. In 1978-79 area has gone up to 16 million hectares. The area under major oilseeds during 1980-81 was 15.62 million hectares. During 1981-82, area under major oilseeds has improved to 16.65 million hectares.

The production of major oilseeds showed sharp fluctuations—from 10.2 million tonnes in 1975-76 to 7.9 million tonnes in 1976-77. However, in 1977-78, the output improved to 9.0 million tonnes. During 1978-79 production further picked up to 9.5 million tonnes. In 1980-81, there was a setback in oilseeds production at 8.334 million tonnes, though it is marginally higher over the 1979-80 level of 8.040 million tonnes. The production in 1981-82 retrieved the ground it had lost in 1980-81 with the output moving up to 10.9 million tonnes.

The Sixth Plan production target for major oilseeds is 12.5 million tonnes.

Area and Production of Oilseeds, 1981-82

	Area (Million hectares)	Production (Million tonnes)
Major Oilseeds		
Groundnut (in shell)	7.448	7.239
Castorseed	0.558	0.302
Sesamum	2.521	0.524
Rape & Mustard	4.337	2.363
Linseed	1.784	0.474
Total for 5 major oilseeds	16.648	10.902
Others		
Coconut	1.088	5.619*
Nigerseed	0.574	0.152
Safflower	0.761	0.424
Cottonseed	7.987	0.131

*Production in million nuts.

Imports: With demand for oilseeds running ahead of supplies — the production trends have been unsatisfactory — shortages and soaring prices have become a fixed feature of the oilseeds economy of India. The gap has been partly met by imports.

During 1976-77, imports of edible oils amounted to 170,000 tonnes valued at Rs. 1,006 million. In 1977-78, the quantity of imports rose to 1.288 million tonnes valued at Rs. 7,116 million. However, in 1978-79 both quantity as well as value imported declined to 1.043 million tonnes and Rs. 5,371 million respectively. The quantity imported in 1979-80 declined to 0.7 million tonnes valued at Rs. 4,298 million. During 1980-81, both quantity as well as value rose to 1.2 million tonnes and Rs. 5,678 million respectively. However, in 1981-82, the imports of edible oils declined to 0.995 million tonnes valued at Rs. 3,783 million.

Consumption: The per capita consumption of edible oil stood at 4.1 kgs. in 1980-81 reflecting an upward trend over the 1979-80 level of 3.7 kgs. The per capita availability further improved to 4.6 kgs. in 1981-82.

This is considerably less than the nutritional norm of 20 kgs. per annum. The recent trend in per capita consumption of edible oils (kgs.) is as under: 1955-56: 2.5; 1960-61: 3.2; 1965-66: 2.7; 1970-71: 3.5; 1975-76: 3.5; 1979-80: 3.7; 1980-81: 4.1; 1981-82: 4.6 (Provisional).

Exports: India's exports of vegetable oils and oilcakes are considerable, though the underlying trend is mixed. The export earnings from vegetable oils (essential and non-essential) and oilcakes are presented below:

COCONUT is one of the important oilseeds produced in the country mainly in South India.

Production: Copra: Latest figures of copra production are: Production of copra: 3,71,000 tonnes; Milling copra: 3,31,000 tonnes; Edible copra: 40,000 tonnes.

Number of Crushing Units: 1,439; Total installed Capacity (per shift of 8 hrs.): 1,055 tonnes.

Exports of Vegetable Oils and Oilcakes

(Rs. million)

Year	Vegetable oils	Oilcakes
1975-76	395	965
1976-77	546	2,344
1977-78	261	1,333
1978-79	189	1,158
1979-80	418	1,275
1980-81	131	1,092
1981-82 (April-September)	48	599

GROUNDNUT: Groundnut (shelled) production in India during 1978-79 stood at 6.4 million tonnes, indicating a rise over the 1977-78 level of 6.1 million tonnes. However in 1979-80 production received a setback and is placed at 5.8 million tonnes. During 1980-81, the groundnut output declined further to 5.02 million tonnes. However, in 1981-82, a sizable spurt in groundnut (nuts in shell) raised the total output to 7.24 million tonnes.

Exports of groundnut extractions form a lion's share of the total exports of oilseed meals from India, and contribute more than 50 per cent of total world exports. The exports which touched a record figure of 1,248,389 tonnes valued at Rs. 1,648 million during 1976-77 were much lower during 1977-78 (operating under a ceiling prescribed by the Government) at 565,000 tonnes valued at Rs. 872 million.

During 1979-80, 564,000 tonnes valued at Rs. 736 million were exported as against 523,061 tonnes worth Rs. 697 million in the preceding year.

These exports are however, subject to quota restrictions. The ceiling is fixed and relaxed keeping in view the domestic needs. The overall quota for 1977 and 1978 was 750,000 and 800,000 tonnes respectively. From January 1979, the exports of groundnut extractions have been canalised through the State Trading Corporation.

Per Hectare Yield in kgs. of groundnut-in-shell: 1974-75: 723; 1975-76: 935; 1976-77: 747; 1977-78: 846; 1978-79: 835; 1979-80: 805; 1980-81: 727; 1981-82: 971.

COTTONSEED: Until about the beginning of the sixties cottonseed was used almost entirely as a cattle-feed, but now 65 to 70 per cent of the total production is available for crushing.

Cottonseed production during 1981-82 was placed around 2.7 million tonnes, about 12% increase than the year 1980-81 level of 2.4 million tonnes. Actual crushing of the seed stood at 1.7 million tonnes, in 1981-82 which is about 6% increase over 1980-81 level of 1.6 million tonnes. Cottonseed oil production increased to 0.21 million tonnes during 1981-82 against 0.2 million tonnes in 1980-81.

Exports: Decorticated cottonseed extractions/expellers, a by-product of scientific processing, have no market in India and have to be exported. The quantum exported during 1981-82 was 0.200 million tonnes valued at Rs. 284 million as against 0.209 million tonnes exported in 1980-81 valued at Rs. 278 million.

SOYABEAN: The soyabean crop is steadily catching popular acceptance from farmers in the States of M.P. and U.P. The area increased to about 280,000 hectares during 1978-79 from the 1976-77 level of 125,000 hectares. The production of soyabean with the modest crop of 50 to 60 thousand tonnes in 1976-77 has reached a level of 250,000 tonnes in the current crop year 1978-79. The steady development became possible by sustained efforts made by various institutes, encouragement given by State and Central

Governments from time to time, and the interest shown by industry by way of offering best price to the farmers in order to make this crop most economical to them.

With all these efforts it is estimated that its cultivation could be stepped up to about 1 million hectares during the next few years.

Sunflower Oil: With proper techniques of cultivation, yields up to 2 tonnes per hectare can be obtained. The success of sunflower cultivation depends on the availability of high-yielding fresh varieties of seeds as the crop is highly cross pollinated. The Government has sanctioned a scheme for producing such seeds.

Under a Central Government programme sunflower has been grown in Andhra Pradesh, Tamil Nadu and Karnataka.

NON-EDIBLE OILS: In 1959 as much as 75 per cent edible oils were used in the manufacture of soap. By 1972 the use of edible oils had dropped to 25 per cent. Efforts have been stepped up to use indigenous sources of non-edible oils such as rice bran oil, mowrah oil, linseed oil, castor oil and solvent oil of groundnuts and minor oils from forest tree seeds. This has not only generated employment in rural India but has saved Rs. 200 million in foreign exchange which would have been spent on the import of 60,000 tonnes per annum of tallow or edible oils.

Castor Oil: Export of castor oil during 1979-80 amounted to Rs. 521 million.

Inedible castor oil has two significant potentials:

(1) With suitable processing castor oil can be used in the manufacture of soaps to the extent of over 25 per cent thereby relieving to that extent the pressure on other edible oils.

(2) Castor oil has great export potential as it is used for conversion and in the lubricant industry. India and Brazil are the only major sources of castor oil in the free world. If India can export the oil-based chemical equivalent of 20,000 tonnes of castor oil, instead of exporting crude castor oil, the additional foreign exchange earnings would be about Rs. 30 million.

Oil-palm: Grown under expert guidance and suitable conditions oil-palm can give higher output of oil per hectare than any other oil-seed crop. For instance, whilst groundnut gives 200 kgs. of oil per hectare in India and 600 kgs. per hectare in most efficient countries, sunflower gives 360 kgs. of oil per hectare and oil-palm gives 1,800 kgs. of oil per hectare in plantations in Malaysia.

Under a State Government scheme in Kerala saplings germinated from the Malaysian red palm oil-seeds have been planted up to 1976 in an area of 2,500 hectares. The yield will be of the following order: (i) Red palm oil 4,446 tonnes, (ii) Kernel oil 616 tonnes, (iii) Oil cake 616 tonnes.

A similar project has also been sanctioned by the Central Government for Andaman and Nicobar islands on an area of 2,400 hectares.

Lemon-grass Oil: It is chiefly grown in Kerala. India exports more than Rs. 10 million worth of lemon-grass oil annually. It is mainly used as a base for some perfumes for the soap-making industry.

Mentha Oil: Mentha farming has been encouraged in the country to save foreign exchange used in the import of mentha oil, an important ingredient in most medicines.

The Kumaon region has been found to be the most suitable area for the cultivation of mentha. The present production of mentha oil is about 200 tonnes valued at Rs. 16 million. This has resulted in the saving of Rs. 10 million in foreign exchange.

Palmarosa Oil: India ranks first among nations producing palmarosa oil and is the chief supplier of this important raw material for perfumery manufacture, earning foreign exchange worth Rs. 3 million annually.

Pine Oil: The first pine oil factory in the country was started at Hoshiarpur in the Punjab. Three others were set up thereafter. It produces pine oil, dipentine and pine tar. This factory is claimed to have resulted in the saving of foreign exchange to the tune of Rs. 3 to Rs. 4 million annually. Another factory to produce high quality pine oil is being set up in Jammu.

RESEARCH: The Central Government has sanctioned Rs. 38 million for a comprehensive all India co-ordinated research project on oil-seeds to be conducted under the Indian Council of Agricultural Research.

The centres for conducting research for different oil-seeds are as follows:

Groundnut: The main centres are at Ludhiana in Punjab for northern region, Tindivanam in Tamil Nadu for south-eastern region, and Rajendranagar in Andhra Pradesh for southern region. The sub-centres are located at Mainpuri in Uttar Pradesh, Pollachi in Tamil Nadu, Kadria and Sambalpur in Madhya Pradesh, and Raichur and Dharwar in Karnataka.

Castor: Rajendranagar in Andhra Pradesh is the main centre and Salem in Tamil Nadu and Raichur in Karnataka are the sub-centres.

Sesamum: The main centres are at Coimbatore, Tamil Nadu for southern region; Jabalpur, Madhya Pradesh for central region; and Sumerpur, Rajasthan for northern region. The sub-centres are at Karimnagar and Visakhapatnam in Andhra Pradesh; Bhubaneshwar, Orissa; Urmala, Maharashtra; and Jhansi, Madhya Pradesh.

Linseed: Kanpur, Uttar Pradesh is the main centre and Patna, Bihar, and Jhansi and Jabalpur in Madhya Pradesh are the sub-centres.

Rapeseed and Mustard: The main centres are at Berhampore, West Bengal; Kanpur, Uttar Pradesh; and Hissar, Haryana. The sub-centres are at Purnea, Bihar, Pantnagar, Uttar Pradesh and Gurgaon, Haryana.

VANASPATI

There are 90 vanaspati units in the country with an annual installed capacity of 1.4 million tonnes (based on groundnut oil usage). Taking into account other types of oil being used presently, the effective capacity is 1.05 million tonnes. Part of this capacity is utilised by the industry for manufacture of other refined vegetable oils. The production of vanaspati (in tonnes) for the last five years is as follows:
1978: 657,000; 1979: 638,000; 1980: 706,000; 1981: 847,711; 1982: 886,892.

Government Policy: Licences for the establishment of new units are granted only to public sector, oilseed growers' co-operatives and joint sector in backward regions. Installed capacity is sufficient to meet foreseeable demand for vanaspati.

The quantum of imported edible oils for use in vanaspati is fixed at 60 per cent of the industry's requirement so as to conserve the indigenous edible oils for direct consumption.

Public Sector: The Government Hydrogenation Factory at Kozhikode, Kerala, The Ganesh Flour Mills Co., Delhi and Kanpur, Amritsar Oil Works, Amritsar and Bhavnagar Vegetable Products, Bhavnagar are the factories in the public sector. Licences have been given for expansion of the units of GFM and establishment of 2 new units by N.D.D.B. in Gujarat and Madhya Pradesh. The licensed capacity will be 200,000 tonnes per annum.

No. of Persons Employed: About 15,000 directly and about 60,000 indirectly.

Publications: 'Oil and Oil-seeds Journal', a monthly brought out by the Bombay Oil-seeds and Oils Exchange Ltd., Jenabai Bldg., M. Bunder Rd., Bombay 400003; 'Oil-seeds Market Review', a weekly market report, 51-A, Mittal Chambers, Nariman Point, Bombay 400021.

SPICES

SPICES, often hailed as "grey gold", have very ancient links with the expansion of the great Roman Empire and the stable economy of Babylonia. Interestingly, it was spices that spurred Christopher Columbus to set out on his exploratory new route to the East which eventually led to the discovery of the New World. Babylonian and Assyrian doctors found in spices effective remedies for many ills.

India, the traditional home of spices, attracted foreign traders and even brought the Portuguese to India's shores. Marco Polo in his travelogue recounts the busy and bustling trade in India. Even pitched battles have been fought for monopoly of the spice trade.

Indian spices are of the finest quality and today the demand for them has considerably increased in all countries.

PEPPER

Pepper, known as the 'King of Spices', is the most important foreign exchange earner among the spice crops. The Indian black pepper is considered to be superior in quality and fetches a better export price.

Pepper production in India accounts for about 20 per cent of the total world production of about 150,000 tonnes. More than 80 per cent of Indian production is exported every year.

The major portion of pepper cultivation is done in Kerala. Efforts are also being made to develop cultivation of pepper in Andhra Pradesh, West Bengal, Orissa and Andaman & Nicobar Islands. Development of hybrid pepper is also on the anvil. During 1982-83, 0.15 million seedlings of rooted pepper cuttings were distributed among growers.

State-wise break-up of area and production for the year 1981-82 is given in Table I.

Export of black pepper during 1980-81 was 26,305 tonnes valued at Rs. 387.04 million and during 1981-82, 20,608 tonnes valued at Rs. 279.84 million.

Also 49 tonnes of dehydrated green pepper valued at Rs. 2.13 million, 338 tonnes of green pepper in brine valued at Rs. 4.16 million and 8 tonnes of white pepper valued at Rs. 0.28 million were estimated to be exported during the year 1981-82.

Average per hectare yield of pepper during 1981-82 was 269 kgs.

CARDAMOM

Cardamom, known as the 'Queen of Spices' usually earns the second highest amount of foreign exchange among spices. Indian exports amount to 30 per cent of the total world exports. Guatemala, Tanzania and Sri Lanka are other major producers and exporters. State-wise break-up of area and production of cardamom in these states during 1981-82 is as follows:

State	Area ('000 hectares)	Production ('000 tonnes)
Kerala	54.5	3.4
Karnataka	27.8	1.6
Tamil Nadu	4.5	0.4
Total	86.8	5.4

Production during 1982-83 is estimated at 2,900 tonnes.

Exports of cardamom (small) during 1980-81 were 2,373 tonnes valued at Rs. 350.45 million and during 1981-82, 2,386 tonnes valued at Rs. 311.11 million.

Exports of cardamom (big) during 1980-81 were 225 tonnes valued at Rs. 5.31 million and during 1981-82, 98 tonnes valued at Rs. 1.98 million.

Average per hectare yield was 62 kgs. during 1981-82.

GINGER

India is the leading ginger producing country and accounts for about 50 per cent of dry ginger output in the world. Cochin ginger produced in Kerala state is regarded as second only to Jamaican ginger which is considered to be the best variety in the world. China, Sierra Leone, Australia and Nigeria are the other producing countries.

Area and production of ginger in the country during 1981-82 is given in Table I. Ginger is exported in three forms: Green (fresh), pickled or processed and dry. Export of ginger during 1980-81 was 6,841 tonnes valued at Rs. 36.80 million and during 1981-82, 4,718 tonnes valued at Rs. 39.53 million.

Average yield per hectare was 1,973 kgs. during 1980-81.

CHILLIES

Chillies are of tropical origin and are exported mainly from India, China, Pakistan, Mexico, Indonesia, Hungary and Poland. The cultivation of chillies is widely scattered throughout India. Its annual consumption varies from region to region in the country. Its consumption is more in Andhra Pradesh, Maharashtra and Tamil Nadu. In Punjab, Bihar, Uttar Pradesh and Orissa consumption is lower. State-wise break-up of area and production of chillies during 1981-82 is given in Table I.

Exports during 1980-81 was 7,682 tonnes valued at Rs. 55.56 million and during 1981-82, 4,659 tonnes valued at Rs. 42.06 million.

Average yield per hectare of chillies was 659 kgs. during 1981-82.

TURMERIC

India is the world's largest producer and exporter of turmeric. The major turmeric growing states are Andhra Pradesh, Maharashtra, Bihar, Tamil Nadu and Orissa. State-wise break-up of area and production during 1981-82 is given in Table I.

Exports during 1980-81 was 14,553 tonnes valued at Rs. 78.84 million and during 1981-82, 11,986 tonnes valued at Rs. 51.74 million.

Average per hectare yield of tumeric was 1,957 kgs. during 1981-82.

SAFFRON

The major state in India cultivating saffron is Jammu and Kashmir. Area under saffron during 1980-81 was 2,615 hectares and production 9,831 kgs. During 1981-82 they were 3,022 hectares and 10,133 kgs.

Average per hectare yield was 3,353 kgs during 1981-82.

OTHER SPICES

Cumin, Fennel, Fenugreek, Celery, Dill, Ajowan are othe spices exported from India. Exports during 1980-81 were 33,30 tonnes valued at Rs. 244.62 million and during 1981-82, 17,63 tonnes valued at Rs. 148.50 million.

During 1982-83, 350 demonstration plots for clove and nutmeg were also laid out. Andaman and Nicobar Islands have been found to have soil suitable for the cultivation of clove, nutmeg and cinnamon.

Spice oils and oleoresins: India has recently emerged as a potential major producer and exporter of spice oils and oleoresins.

USA, West Germany, Canada, UK, Australia, Holland, France, Belgium, Yugoslavia, Japan are the major importers of spice oils and oleoresins.

The following quantities of spice oils and oleoresins were exported during 1980-81 and 1981-82.

Export duty: The export duty levied on pepper has been lifted. Export duty of Rs. 1,500 per tonne on turmeric powder and Rs. 2,000 per tonne on other types of turmeric has been lifted recently.

Export of spice oils and oleoresins

(Quantity — tonnes; Value — '000 Rs.)

Item	1980-81		1981-82	
	Quantity	Value	Quantity	Value
Spice oils				
Pepper	5.5	756	8.6	1,636
Ginger	6.3	2,550	6.5	1,587
Cardamom	0.8	1,467	0.8	1,468
Cinnamon leaf oil	0.2	9	—	—
Caraway oil	0.1	81	—	—
Others	2.8	837	0.7	331
Total	15.7	5,700	16.6	5,022
Spice oleoresins				
Pepper	104.7	14,902	110.3	16,057
Ginger	5.5	1,099	9.2	2,231
Turmeric	25.1	2,572	15.2	3,493
Chillies	3.2	979	10.1	2,803
Fenugreek	0.1	3	—	—
Others	14.3	2,238	22.3	1,677
Total	152.9	21,793	167.1	26,261

GENERAL

Grading of spice commodities according to Agmark specifications has been made compulsory under the Sea Customs Act for export trade. Indian spices exports have increased from 166 million in 1960-61 to Rs. 729.60 million in 1976-77 (56,000 tonnes) and to Rs. 1,358 million in 1977-78 (73,000 tonnes). Exports during 1978-79 are estimated at Rs. 1,602 million (99,945 tonnes) and during 1979-80 Rs. 1,354 million (85,898 tonnes).

During the year 1980-81 the exports of spice crops are estimated at Rs. 1,304.2 million (273,297 tonnes).

The spices Export Promotion Council has a research and development cell which screens the problems regarding quality of spices exported.

TABLE I

State-wise area and production of spices during 1981-82

(Area '000 hectares — Production '000 tonnes)

State	Pepper		Ginger*		Turmeric		Chillies	
	Area	Production	Area	Production	Area	Production	Area	Production
Andhra Pradesh	-	-	1.80	2.50	23.5	60.1	151.5	171.9
Assam	-	-	-	-	7.9	4.9	10.2	6.0
Bihar	-	-	0.59	0.57	4.8	5.9	10.0	11.4
Gujarat	-	-	0.30	0.23	-	-	13.5	9.3
Haryana	-	-	0.07	0.05	-	-	8.2	8.1
Himachal Pradesh	-	-	2.03	1.37	-	-	0.9	0.2
Jammu & Kashmir	-	-	-	-	-	-	1.0	0.5
Karnataka	3.07	0.79	2.44	3.17	2.6	9.6	152.3	46.9
Kerala	105.77	28.57	12.92	32.19	4.0	7.6	0.9	0.8
Madhya Pradesh	-	-	1.91	2.23	0.5	0.4	55.4	19.2
Maharashtra	-	-	0.68	0.61	7.9	13.0	145.9	74.7
Manipur	-	-	1.24	1.49	-	-	4.4	2.6
Meghalaya	-	-	5.45	21.85	1.3	1.8	1.4	1.0
Nagaland	-	-	0.25	0.14	-	-	1.3	0.9
Orissa	-	-	4.18	3.44	22.2	20.7	78.5	57.6
Punjab	-	-	-	-	-	-	8.0	9.3
Rajasthan	-	-	0.21	0.22	0.2	0.3	34.5	14.6
Tamil Nadu	0.44	0.08	0.88	0.78	11.6	45.6	72.1	54.6
Tripura	-	-	0.52	0.77	0.9	1.4	1.1	0.4
Uttar Pradesh	-	-	0.39	2.17	0.6	0.7	18.4	14.5
West Bengal	-	-	2.87	4.42	-	-	23.7	18.1
Arunachal Pradesh	-	-	-	-	0.1	0.3	0.4	0.3
Delhi	-	-	-	-	-	-	0.1	0.4
Mizoram	-	-	1.95	2.07	0.1	0.3	3.0	1.5
Pondicherry	0.01	0.01	-	-	-	-	0.1	0.1
Total	109.29	29.45	40.68	80.27	88.2	172.6	796.8	524.9

* Figures are for 1980-81.

Source: Directorate of Economics & Statistics, New Delhi.

Regulated market: With a view to preventing exploitation of producers and getting better prices for their produce several markets have been regulated under Agricultural Produce Market Act. About 179 markets for chillies, 60 for turmeric, 42 for garlic, 31 for ginger, 7 for black pepper and 3 for cumin are functioning in different states of India.

Research: The agricultural research on spices is being carried out at the **Central Plantation Crops Research Institute** (ICAR), Kasaragod and its regional stations and at the Agricultural Universities. The All India Co-ordinated Vegetable Improvement Project functioning at Indian Agricultural Research Institute carries out research on chillies. Research on post harvest technology and processing of spices is being done at Central Food Technological Research Institute, Mysore and Regional Research Laboratories particularly at Trivandrum.

Development: The Central Government has constituted **Indian Spices Development Council** consisting of Government officials and non-officials representing growers, traders and other interests. It reviews the development work already in progress and under recommendations. The development programmes are planned, prepared and the implementation coordinated by the **Directorate of Cocoa, Arecanut and Spices Development** functioning at 1/500, Cannanore Road, Calicut 673005, Kerala.

Development programmes now under implementation are: i) large-scale multiplication and distribution of rooted cuttings of hybrid pepper 'Penniyur-I' by establishing nurseries, ii) production and distribution of seedlings of clove and nutmeg and seeds of high yielding varieties of other spices, iii) implementation of package scheme providing for field demonstrations to promote cultivation of the hybrid pepper, clove and nutmeg and adoption of scientific package of practices and iv) a special package scheme aiming at increasing the productivity of the existing pepper gardens and bringing additional area under the crop.

Publications: 1) 'Spices Newsletter' (Monthly) and 'Indian Spices' (Quarterly) brought out by the Spices Export Promotion Council, Cochin; 2) 'Indian Cocoa, Arecanut and Spices Journal' (Quarterly), Directorate of Cocoa, Arecanut and Spices Development, Calicut; 3) 'Journal of Plantation Crops' (Half-yearly), Indian Society for Plantation Crops, Central Plantation Crops Research Institute, Kasaragod; 4) 'Cardamom' (Monthly), Cardamom Board, Cochin.

TOBACCO

THE history of tobacco goes back to the times when Christopher Columbus and other explorers discovered and explored America. They found the natives using tobacco in much the same way as is used nowadays. In the initial stages it was found to have medicinal properties and was on that account introduced in Europe. The genus nicotiana associated with tobacco is said to have been named after Jean Nicot, the French ambassador at Lisbon, who despatched seeds of N. tabacum to Queen Catherine of France.

Virginia tobacco as the name suggests is one of the best quality tobacco to be grown in India. It owes its origin to Virginia in the U.S. and is one of the top foreign exchange earners.

India is one of the three major producers of tobacco in the world, the other two being U.S. and China. Next to sugar, tobacco is an important item in India's foreign trade.

The chief tobacco-growing States in India are: Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu, Orissa, Bihar, West Bengal and Maharashtra. Of these Andhra Pradesh ranks first, Gujarat comes next, while Karnataka holds the third position. The black porous soil in these States is very favourable for the cultivation of quality grades of tobacco.

The present total number of cigarette factories in the private sector is 19, of which 5 are in Maharashtra, 5 in Andhra Pradesh, 2 each in West Bengal and Uttar Pradesh and 1 each in Karnataka, Bihar, Madhya Pradesh, Tamil Nadu and Gujarat. Letters of intent have also been issued to set up cigarette factories. The cigar industry is concentrated in Tamil Nadu, whilst the production of *bidis* is a cottage industry on a country-wide basis.

The first joint sector cigarette factory at Bari Brahman, 18 kms. south of Jammu has been put up by the state-owned Jammu & Kashmir Industrial Development Corporation and the Golden Tobacco Co., Ltd. The factory has attained a production level of 1.5 million cigarettes per day.

There are about 19 *zerda* (Chewing tobacco) manufacturing factories and 3 snuff factories in the country situated mostly in Tamil Nadu and Uttar Pradesh.

Public Sector: The State Industrial Development Corporation of Assam, Haryana, Jammu and Kashmir, Kerala and Tamil Nadu have each been isued a letter of intent to set up a cigarette manufacturing unit. Each unit will have a capacity of 4,500 million cigarettes annually, except the unit in Assam which will have a capacity to produce 3,000 million pieces per year. An application from the Madhya Pradesh Industrial Development Corporation is reported to be under consideration.

No. of Persons Employed: It is estimated that about 700,000 growers and 500,000 curers are engaged in tobacco cultivation. In the manufacturing sector, the total number of persons employed is estimated at 3 million of which, 2 million are in the *bidi* industry. About 14,000 are employed in the cigarette industry.

Ranking in the World Market: India is the third most important tobacco-producing country next only to mainland China and U.S.A. and accounts for about 7.9 per cent of the total world tobacco production.

LOCATION OF THE INDUSTRY: The following table gives the area and production of tobacco in India in 1981-82.

Area: '000 hectares
Production : Million Kg.

State/Union Territory	1980-81		1981-82	
	Area	Production	Area	Production
Andhra Pradesh	169.4	164.0	182.8	192.5
Assam	5.7	4.0	5.5	3.7
Bihar	12.5	9.7	12.1	10.8
Gujarat	121.5	185.2	113.0	209.5
Haryana	0.2	0.1	0.1	0.1
Himachal Pradesh	0.4	0.1	0.3	0.1
Jammu and Kashmir	0.1	0.1	0.1	0.1
Karnataka	51.6	33.9	50.8	30.5
Kerala	0.4	0.8	0.4	0.8
Madhya Pradesh	2.0	1.0	1.8	1.0
Maharashtra	11.9	6.8	12.0	7.3
Meghalaya	0.5	0.4	0.5	0.4
Orissa	21.2	11.3	19.6	10.5
Punjab	0.1	0.1	0.1	0.1
Rajasthan	3.4	2.5	3.0	2.4
Tamil Nadu	14.5	22.4	17.2	26.1
Tripura	0.9	0.3	0.9	0.3
Uttar Pradesh	15.4	20.2	13.1	15.3
West Bengal	18.9	17.4	14.1	13.3
Arunachal Pradesh	0.2	0.2	0.2	0.2
Mizoram	0.7	0.3	0.7	0.3
Total All India	451.5	480.8	448.3	525.3

Source: Directorate of Economics and Statistics, Ministry of Agriculture.

Following is the estimated area in thousand hectares and production in million kgs. respectively, of tobacco producing countries of the world for the years 1980 and 1981.

Estimated area and production in specified countries

('000 hectares, Million kg.)

	1980		1981	
Country	Area	Production	Area	Production
Argentina	50.9	61.8	47.9	50.7
Australia	7.5	15.1	6.9	15.0
Bangladesh	45.1	39.5	51.4	47.4
Brazil	250.0	350.0	239.0	314.0
Bulgaria	115.0	122.0	108.0	124.1
Burma	64.0	75.0	64.0	75.0
Canada	46.6	107.9	51.2	112.1
China, People's Republic of	538.0	898.0	679.0	1,250.0
Colombia	23.9	33.7	26.0	37.4
France	18.6	46.5	17.0	42.8
Greece	89.3	116.8	90.7	118.4
India	425.4	438.5	428.2	455.6
Indonesia	183.6	117.6	184.3	119.7
Italy	61.0	125.5	59.4	129.0
Japan	66.8	141.4	59.0	137.7
Korea, Republic of	45.9	92.5	40.5	87.0
Malawi	68.8	55.6	68.9	52.3
Mexico	51.0	78.9	42.3	70.5
Pakistan	45.5	71.0	42.8	67.1
Paraguay	11.8	16.0	8.6	9.0
Philippines	82.8	75.5	87.7	81.3
Poland	51.7	56.3	48.6	90.0
South Africa, Republic of	37.7	35.6	37.5	31.6
Taiwan	8.4	19.7	8.7	22.7
Tanzania	30.7	16.9	29.7	16.3
Thailand	152.5	87.0	152.0	87.0
Turkey	223.0	228.3	197.0	180.0
U.S.A.	373.2	811.3	394.5	935.2
U.S.S.R.	177.0	289.0	183.0	295.0
Yugoslavia	57.4	57.0	64.0	70.0
Zambia	5.3	4.7	5.1	3.0
Zimbabwe	65.9	125.1	39.8	69.4
Others	427.3	449.7	463.4	467.7
Estimated World Total	3,901.6	5,259.4	4,026.1	5,664.0

Source: Foreign Agriculture Circular, U.S.D.A.

Estimated area and production of different types of tobacco

('000 hectares, Million Kg.)

	1980-81		1981-82	
Type	Area	Production	Area	Production
Virginia	142.4	117.0	152.9	137.7
Natu	35.0	43.0	35.0	50.0
Bidi	140.0	175.0	130.0	190.0
Cigar & Cheroot	10.0	13.0	10.0	15.0
Hookah	35.0	40.0	34.0	40.0
Chewing	82.1	85.3	80.0	85.0
Snuff	7.0	7.5	6.4	7.6
Total	451.5	480.8	448.3	525.3

PRODUCTION

India produces several types of tobacco which fall under two botanical species, namely Nicotiana Tabacum and Nicotiana Rustica.

Virginia Tobacco: The all India production of Virginia Tobacco in 1981-82 was 137.7 million kgs. from an area of 152.9 thousand hectares.

Production of Cigarettes: During 1981, the output of cigarettes in India was 86,838 million pieces.

Production of *Bidis*: It is estimated that about 300 million pieces of *bidis* are manufactured annually.

EXPORTS

India is the third biggest exporter of tobacco in the world next to the U.S. and Turkey and tobacco holds the 13th place in India's export trade. The U.K., U.S.S.R., Japan, Bangladesh, Italy and the Netherlands are the largest importers of Indian tobacco.

During 1981-82, India exported 107 m. Kg. of flue-cured tobacco valued at Rs. 1,950 m., against 94 m. Kg. valued at Rs. 1,240 m. in 1980-81. The Soviet Union was the largest buyer followed by China and the United Kingdom. *Bidis*, cigarettes and hookah tobacco paste exports together fetched Rs. 210 m. in 1981-82.

Exports of tobacco and tobacco products from India—Variety-wise

Quantity: '000 kg.; Value: '000 Rs.

	1980-81	
Variety	Quantity	Value
Tobacco Unmanufactured		
For manufacture of Bidi	1,908.7	13,247.0
For manufacture of Chewing tobacco	6,223.0	38,239.6
Sun-cured Natu (Country)	316.5	3,571.0
Virginia Flue-cured		1,158,030.8
Virginia Sun-cured	826.4	6,457.6
Burley tobacco	822.6	10,627.9
For manufacture of Cigar and Cheroot	25.0	123.0
For Hookah tobacco	196.4	1,165.3
Others	383.4	5,580.0
Tobacco Refuse including stalks and stems	1,991.7	7,070.2
TOTAL	79,014.2	1,244,112.4
Tobacco Manufactured:		
Cigar and Cheroot:		
i) Bidis	294.8	11,408.2
ii) Cigar and Cheroot	1.8	40.0
iii) Others	125.0	725.0
Cigarettes	2,277.4	70,866.0
Chewing tobacco	832.4	8,322.3
Hookah or Gudk tobacco	8,322.4	51,364.1
Jarda Scented tobacco	24.2	1,844.8
Snuff	33.3	1,134.9
Extracts and Essenses	133.4	13,943.0
Tobacco Manufactured NES	292.1	3,031.9
TOTAL	12,336.8	162,680.2
GRAND TOTAL	91,351.0	1,406,792.6

Source: Directorate General of Commercial Intelligence and Statistics, Government of India, Calcutta.

Export Duty: With the devaluation of rupee in June, 1966, an export duty of 75 paise per kg. or 20 per cent *ad valorem*, whichever is lower, was levied on unmanufactured tobacco.

Export Promotion Agency: Tobacco Board, Old Club Rd., Kothapeta, Guntur 522001, Andhra Pradesh.

Statutory grades for all the varieties of unmanufactured tobacco entering the export trade have been prescribed by the Government for strict quality control.

Nearly 80 per cent of the tobacco produced is locally consumed and the rest is exported.

Quantity of raw tobacco cleared for home consumption in India

(Quantity: Million kg.)

Variety	1977-78	1978-79
Flue-cured Virginia Tobacco	43.8	41.0
Other than flue-cured and used for the manufacture of cigarettes, and smoking mixtures for pipes and cigarettes	29.8	28.7
Total	73.6	70.3
Other than flue-cured and intended for manufacture into:		
(i) (a) Bidi	104.1	98.9
(b) Others	30.1	33.4
Total Bidi Tobacco	134.2	132.3
(ii) Cigar & Cheroot	14.4	12.8
(iii) Snuff	4.3	4.5
(iv) Hookah	21.5	18.1
(v) Chewing	41.7	40.6
(vi) Others	1.2	1.4
Agricultural Purposes	31.8	41.9
Destruction	3.6	7.3
Special Industrial Purposes	19.0	17.3
Stalks	14.3	12.8
Miscellaneous	1.4	1.0
Total	361.0	360.3

Source: Directorate of Statistics & Intelligence.

Consumption of Cigarettes: The per capita consumption rate per month in India is about 10, as against 217 in US, 176 in UK, 170 in Japan, 168 in Singapore, 70 in Malaysia, 24 in Pakistan, 20 in Sri Lanka and 13 in Nepal.

Tobacco in each Cigarette: A regular ordinary cigarette of 7 mm length contains 1.05 gm. to 1.12 gm. of tobacco.

GENERAL

The nicotine content in Flue-Cured Virginia tobacco grown in India ranges between 0.6 per cent to 3 per cent. Nicotine content is lower in Virginia tobacco grown in light soil areas and high in tobacco grown in heavy black soil.

Tobacco is an excisable commodity and its movements, processing and manufacture from the stage of harvesting till it is consumed or exported are controlled by the Central Board of Excise and Customs of the Ministry of Finance.

Research: Research programmes on tobacco are implemented by the Indian Council of Agricultural Research. The Council has initiated an All India Coordinated Research Project on tobacco with its headquarters at Anand (Gujarat) with a view to conducting research for all round improvement of Indian tobacco.

The Central Tobacco Research Institute at Rajahmundry in Andhra Pradesh is mainly devoted to the investigation of fundamental problems connected with various aspects of tobacco. It also co-ordinates the work of other tobacco experimental farms and research stations (listed below), spread all over the country, which are carrying out research on different types of tobacco grown in the concerned regions.

1. Tobacco Research Station, Guntur, Andhra Pradesh.
2. Tobacco Research Station, Pusa, Bihar.
3. Bidi Tobacco Research Scheme, Anand, Gujarat.
4. Tobacco Research Station, Hunsur, Karnataka.
5. Bidi Tobacco Research Station, Nipani, Karnataka.
6. Tobacco Research Station, Vedasandur, Tamil Nadu.
7. Tobacco Research Station, Dinhata, West Bengal.

India Tobacco Co. Ltd., and their sister concern Indian Leaf Tobacco Development Co. Ltd., are conducting research on various aspects of tobacco at their research centre in Rajahmundry, Andhra Pradesh. Recently the company has established an integrated research centre at Bangalore.

The Indian Tobacco Development Council of the Government, formulates the tobacco development programmes, reviews the progress and considers the problems of marketing, trade and price policy.

The Tambaku Vikas Nideshalaya (Directorate of Tobacco Development) in the Ministry of Agriculture, with its headquarters at 3-A, Eldams Rd., Teynampet, Madras 600018, implements the development schemes, channels Government finances and renders technica advise and guidance.

Besides the development schemes, Tobacco Extension Units are also operating in the tobacco growing areas under the control of Agricultural Department of the State Governments for educating and training the farmers in the improved methods of harvesting, handling and curing of tobacco.

The average **Per Hectare Yield** of tobacco in India during the last few years is given in the table below:-

Year			All tobacco (kgs.)	Virginia tobacco (kgs.)
1973-74	..	..	989.0	943
1974-75	..	..	955.5	836
1975-76	..	..	950.0	794
1976-77	..	..	965.5	673
1977-78	..	..	988.9	810
1978-79	..	..	1,097.8	837

Source: Directorate of Economic & Statistics.

Publications: 'Indian Tobacco Journal' (English), 'Bharatiya Tambaku' (Hindi) and 'Bharatiya Pogaku' (Telugu)—all quarterlies published by Directorate of Tobacco Development, Madras.

FERTILISERS

CHEMICAL fertilisers constitute vital ingredients of modern agriculture. In 1951-52 i.e. at the beginning of the first Five-Year Plan consumption of fertilisers was a bare .07 million tonnes, nearly 90 per cent of it in the form of nitrogenous fertilisers. There has been significant increase in fertiliser consumption since then, thanks to the concerted efforts made by the Centre and the states. To popularise the use of fertilisers among farmers, field trials, composite demonstrations and education through the mass media were introduced. Increased use of fertiliser was an important element of the strategic programmes such as National Extension Service. Intensive Agricultural Development Programme (IADP) and Intensive Agricultural Area Programme (IAAP) launched in the fifties and the early sixties. However, a real breakthrough in the use of fertiliser came only in the late 1960s with the introduction of dwarf, high-yielding varieties of wheat and rice which required large doses of fertiliser compared with traditional varieties to give better results. As a result, there was almost a four-fold increase in fertiliser use since 1965-66.

There are 36 fertiliser units producing a wide range of straight nitrogenous, complex and phosphatic fertilisers. Besides, there are 38 units producing single super phosphate and 6 units producing ammonium sulphate as by-products from steel plants. The capacity of nitrogen in the beginning of 1981-82 was 4.7 million tonnes. Since then, two more plants, namely, Kandla (expansion) and Kanpur (expansion) have gone into commercial production. By the end of 1981-82, three more plants, namely, Trombay V, Bharuch and Haldia are expected to be commissioned. The capacity of Nitrogen had increased to 5.1 million tonnes by the end of 1982-83. The capacity for phosphatic fertilisers was 1.4 million tonnes in 1981-82. With the commissioning of new plants it is expected that the capacity will increase to 1.47 million tonnes by 1983-84.

The demand for fertilisers by the end of the Sixth Five-Year Plan (1984-85) is projected as 6 million tonnes of nitrogen and 2.3 million tonnes of P_2O_5. The demand is expected to increase to about 8.5 million tonnes of nitrogen and 3.5 million tonnes of P_2O_5 by the end of the 7th Five-Year Plan (1989-90). The production from the plants now in operation or under implementation will not be adequate to meet the projected demand for fertilisers. Keeping this in view, it is proposed to take up, in a phased manner, construction of eight new nitrogenous fertiliser plants and 11 phosphatic fertiliser plants in the Sixth Plan period. Six of the eight nitrogenous fertiliser plants will be based on gas and one each is expected to be based on naphtha and coal. The coal-based plant would, however, be considered only after the techno-economic viability of coal-based plants is established by the operating experience of the Ramagundam and Talcher plants. The setting up of the naphtha based plant would depend on availability of surplus naphtha from the Mathura Refinery for fertilisers production. A site selection committee was appointed to recommend the location of the gas-based plants; its report has been received and is under consideration.

The retention price scheme introduced for nitrogenous fertilisers from November 1, 1977 and for phosphatic fertiliser from February 1, 1979, continues to be in force.

The scheme of fertiliser freight subsidy introduced from November 1, 1977, also continues to be in force. Under this scheme, the manufacturers have been encouraged to move fertilisers up to the block headquarters in order to ensure to the maximum extent possible, the availability of fertilisers in the interior areas in adequate quantities and in time.

The present feedstock policy for fertilisers envisages development of additional fertiliser capacity based mainly on gas and coal. While gas has to be accorded the first preference, consideration would be given to setting up of more coal-based fertiliser plants, on the experience of the two recently commissioned coal-based plants at Talcher and Ramgundam has become available and it has been established that the coal-gasification technology is viable for large-scale fertiliser production. Naphtha as a feedstock for fertiliser would be considered in case of a long term disposal problem at an inland location or where an existing plant at inland location can be expanded at relatively lower capital cost and completed in quick time.

The sector-wise distribution of the anticipated fertiliser capacity in the country is as follows:

	Nitrogen		P_2O_5	
	Capacity (lakh tonnes)	% to total capacity	Capacity (lakh tonnes)	% to total capacity
Public sector	31.42	59.3	7.40	49.7
Private sector	16.70	31.5	4.90	32.9
Cooperative sector	4.88	9.2	2.60	17.4
Total	53.00		14.90	

PRIVATE SECTOR

There are 8 large and 2 small fertiliser plants producing nitrogenous and complex fertilisers and 29 small units producing single superphosphate in the private sector with a total capacity of 1.4 million tonnes of nitrogen and 0.5 million tonnes of P_2O_5. The large private sector units are: *(i)* Gujarat State Fertilizer Co. Ltd., Baroda; *(ii)* Shriram Fertilizers and Chemicals, Kota; *(iii)* Indian Explosives Ltd., Kanpur (Existing Plant); *(iv)* Indian Explosives Ltd., Kanpur (Expansion Plant); *(v)* Zuari Agro-Chemicals Ltd., Goa; *(vi)* Mangalore Chemicals and Fertilizers, Mangalore; *(vii)* Southern Petrochemical Industries Corporation, Tuticorin; *(viii)* Coromandel Fertilizers Ltd., Vizag.

PUBLIC SECTOR

Fertilizer Corporation of India Ltd. (FCI): It has five operating units, namely, Sindri Modernisation, Sindri Rationalisation, Gorakhpur, Talcher and Ramagundam with a total capacity of 0.8 million tonnes of nitrogen and 0.15 million tonnes of P_2O_5. The authorised share capital of the company as on March, 31, 1981 was Rs. 8,000 million and the paid-up capital Rs. 3,956 million.

Hindustan Fertilizer Corporation Ltd.: Consequent upon the re-organisation of the erstwhile Fertilizer Corporation of India in April, 1978, Hindustan Fertilizer Corporation Ltd. (HFCL) was incorporated with an authorised share capital of Rs. 5,000 million. The paid-up share capital as on April 1, 1981 is Rs. 2,550.6 million.

HFC has three units in production and two projects under construction. The operating units are at Namrup (including Namrup Expansion) in Assam, Durgapur in West Bengal and Barauni in Bihar. There are two projects under construction, one at Haldia in West Bengal and the other at Namrup (designated Namrup-III) in Assam. The Haldia complex has already started production of urea and ammonia since 1983.

Rashtriya Chemicals and Fertilizers Ltd.: Consequent upon the re-organisation of the erstwhile Fertilizer Corporation of India in April, 1978, Rashtriya Chemicals and Fertilizers Ltd. (RCFL) was incorporated under the Indian Companies Act, 1956. The new company took over the Trombay Unit, Trombay Expansion (Trombay-IV) and Trombay-V, West South Marketing Zone and the Bombay Purchase and Liaison Office, which had formed part of the Fertiliser Corporation of India earlier. As on 1-4-1981 the authorised share capital of the company stands at Rs. 5,000 million and the paid-up share capital at Rs. 2,174.8 million.

Fertilisers And Chemicals Travancore Ltd. (FACT), Udyogmandal 683501, Kerala. The first factory in India to manufacture chemical fertilisers on a commercial basis, now a Government of India Enterprise. It consists of: two production units—one at Udyogmandal and the other at Ambalamedu; a design and consultancy division named FACT Engg. and Design Organisation (FEDO); a fabrication and erection division named FACT Engg. Works (FEW); and a marketing division. The Udyogmandal Division produces ammonium sulphate, superphosphate, ammonium phosphate 16:20 20:20, ammonium chloride and synthetic cryolite. The Cochin Division produces urea and NPK complex fertilisers. FEDO is equipped to take up turn-key contracts for the design and engg. of chemical and fertiliser plants, hydrometallurgical processing and pharmaceutical plants, etc. FEW caters to the specialised needs of the chemical and fertiliser industry in the field of fabrication of plant and equipment as well as structural and erection works.

FACT Engineering and Design Organisation (FEDO): FEDO is securing orders for a number of turn-key projects, feasibility studies, consultancy assignments, etc. for fertiliser and chemical plants: A major assignment is for consultancy services for the ammonia plant of the new gas-based fertiliser project of Krishak Bharati Co-operative Ltd. (KRIBHCO) at Hazira in Gujarat. Under this assignment, FEDO is associated as a sub-contractor with Messrs. MW Kellogg of U.S.A. FEDO has also signed another agreement with Messrs. MW Kellogg through which the latter will transfer to FEDO their ammonia technology. This would enable FEDO to set up ammonia plants based on Kellogg technology with minimum external assistance.

National Fertilizers Ltd.: NFL was incorporated on August 23, 1974, with an authorised capital of Rs. 1,500 million, for the establishment of fertiliser plants in the north-western region. On the re-organisation of Fertilizer Corporation of India and National Fertilizers Ltd., with effect from April 4, 1978, NFL took over the old Nangal Unit and Nangal Expansion Project from FCI. With the commissioning of the Bhatinda and Panipat plants, the company has at present four operating units, viz., the Calcium Ammonium Nitrate Plant at Nangal and the Urea Plants at Nangal, Bhatinda and Panipat. As on March 31, 1981, the authorised capital of the company was Rs. 4,000 million and the paid-up capital was Rs. 2,742.7 million.

Madras Fertilisers Ltd., Manali, Madras 600068 (Tamil Nadu), with an annual capacity of 176,000 tonnes of nitrogen and 112,000 tonnes of phosphates commenced production in November, 1971. It is a joint venture in which the Government of India holds 51 per cent of the equity capital while the remaining 49 per cent is equally shared between Amoco India Incorporated of USA and the National Iranian Oil Co. of Iran.

Gujarat Narmada Valley Fertilisers Company Ltd., P.O. Narmadanagar - 392015. Dist. Bharuch, Gujarat: Jointly promoted by Government of Gujarat and Gujarat State Fertilisers Co. Ltd., the Gujarat Narmada Valley Fertilisers Company Limited (GNFC) is the world's largest single stream Ammonia-Urea plant (capacity: Urea 1800 TPD, Ammonia 1350 TPD). It went into commercial production in July, 1982.

TABLE 1 : GROWTH OF FERTILISER INDUSTRY

	Capacity during the period ('000 tonnes)		Financial outlay during the period (Rs. million)		
	N	P_2O_5	Public sector	Private sector	Total
I. In production					
Before 1947	5 (5)	63 (63)	8 (8)	25 (25)	33 (33)
At the end of 1947	5 (10)	5 (68)	55 (63)	4 (29)	59 (92)
At the end of 1950	— (10)	34 (102)	4 (67)	12 (41)	16 (108)
1951-56 (I Plan)	90 (100)	4 (106)	537 (604)	4 (45)	541 (649)
1956-57 (II Plan)	21 (121)	22 (128)	45 (649)	53 (98)	91 (747)
1961-66 (III Plan)	349 (470)	146 (274)	1138 (1787)	82 (180)	1220 (1967)
1966-69 (Annual Plan)	385 (855)	160 (434)	945 (2732)	1193 (1373)	2138 (4105)
1969-74 (IV Plan)	1002 (1947)	147 (581)	1931 (4663)	1795 (3108)	3725 (7831)
1974-75 (V Plan)	1327 (3274)	536 (1117)	7368 (12031)	2870 (5538)	9738 (17560)
1979-80	628 (3902)	167 (1284)	7357 (19383)	35 (5578)	7392 (24961)
1982-83 (Third year for VI Plan)	1276 (5178)	228 (1512)	8468 (27851)	5804 (11382)	14272 (39233)
II. Under implementation	1921 (7099)	609 (2121)	26350 (54201)	1934 (13316)	28284 (67517)
III. Approved in principle	2500 (9599)	521 (2642)	30550 (84751)	13580 (26896)	44130 (111647)
IV. Under consideration	395 (9994)	512 (3154)	8000 (92751)	1400 (28296)	9400 (121047)

Figures in brackets represent cumulative totals.

Narmada Urea is available to farmers in Uttar Pradesh, Punjab, Haryana, Rajasthan, Gujarat, Madhya Pradesh and Maharashtra —nearly 50 per cent of the country's farming community.

By-products: Liquid Ammonia 270 TPD, Liquid Nitrogen 6 million litres per year, Liquid Oxygen 2 million litres per year and Sulphur 25 TPD.

Paradeep Phosphates Ltd.: Government has set up a new public sector undertaking known as the Paradeep Phosphates Ltd. for implementing a phosphatic fertiliser project at Paradeep in Orissa. The company was incorporated on December 24, 1981, with its registered office at Bhubaneswar in Orissa. The company will have an authorised capital of Rs. 1,200 million.

Fertiliser (Planning & Development) India Ltd. *(FPDIL)*: It is a new separate engineering company formed out of the Planning and Development Division of the erstwhile Fertilizer Corporation of India Ltd., started functioning from April 1, 1978 with an authorised share capital of Rs. 80 million.

TABLE II

LEVEL OF FERTILISER CONSUMPTION IN INDIA

Year	Consumption of fertiliser (in lakh tonnes)			
	N	P	K	Total
1951-52	0.6	0.1	—	0.7
1960-61	2.1	0.5	0.3	2.9
1965-66	5.7	1.3	0.8	7.8
1970-71	14.8	5.4	2.4	22.6
1971-72	18.0	5.6	3.0	26.6
1972-73	18.4	5.8	3.5	27.7
1973-74	18.3	6.5	3.6	28.4
1974-75	17.7	4.7	3.4	25.8
1975-76	21.5	4.7	2.8	29.0
1976-77	24.6	6.3	3.2	34.1
1977-78	29.1	8.7	5.1	42.9
1978-79	34.2	11.1	5.9	51.2
1979-80	34.9	11.5	6.1	52.6
1980-81	36.8	12.1	6.2	55.2
1981-82	40.7	13.2	6.7	60.6
1982-83 (anticipated)	42.6	14.2	7.4	64.2

Pyrites, Phosphates and Chemicals Ltd. (PPCL): It was set up in March, 1960, initially as a subsidiary of the National Industrial Development Corporation Ltd. It assumed independent status in September, 1963. It is engaged in the exploitation of pyrites deposits at Amjhore in Bihar, in exploratory-cum-production mining of pyrites deposits at Saladipura in Rajasthan and in mining of rock phosphate ore from the Mussoorie phosphorite deposits. The pyrites are used as a substitute for sulphur in the manufacture of sulphuric acid and also as soil amendment material. The rock phosphate mined is powered and supplied for direct application as a source of P_2O_5 in acidic soils. The authorised capital of the company as on March 31, 1981 was Rs. 150 million.

Imports: Although the production of fertilisers has shown a substantial improvement during the past two decades, it still falls far short of our requirements. In the event, recourse to imports has been a fixed feature of India's fertiliser scene. This situation is unlikely to be reversed in the near future mainly because the production targets envisaged for the next decade or so lag behind the likely increase in consumption. For example, in 1983-84, the estimated indigenous production of fertilisers is put at only 4.55 million tonnes of nutrients as against the demand for 7.2 million tonnes of nutrients.

Although imports are hopefully likely to be curtailed as rate of domestic production picks up, it is the officially stated policy to import fertilisers so that this vital agricultural input is made available to the farmers in adequate quantities so that the tempo of farm production does not suffer adversely. A synoptic view of the trend in imports of fertilisers is presented below:

Year	Quantity (lakh tonnes)	Value (Rs. million)
1952-53	0.47	46
1960-61	4.19	122
1965-66	4.13	412
1970-71	6.29	768
1971-72	9.97	900
1972-73	11.94	1,213
1973-74	12.42	1,768
1974-75	16.07	5,991
1975-76	16.35	7,228
1976-77	10.51	2,204
1977-78	15.21	3,064
1978-79	19.94	4,600
1979-80	20.01	5,545
1980-81	27.59	9,252
1981-82	20.41	7,166
1982-83	11.32	2,735

TABLE III

CAPACITY, PRODUCTION AND CAPACITY UTILISATION

(Capacity and Production in '000 tonnes)

Year	Capacity		Production		Percentage of Capacity utilisation	
	N	P	N	P	N	P
1973-74	2,204	708	1,050	325	48	46
1974-75	2,625	879	1,186	331	45	38
1975-76	3,024	927	1,508	320	50	35
1976-77	3,065	1,042	1,862	478	64	56
1977-78	3,189	1,026	2,000	700	65	68
1978-79	3,274	1,117	2,173	778	69	71
1979-80	3,902	1,287	2,224	763	63	65
1980-81	4,575	1,282	2,164	842	47	66
1981-82	4,719	1,418	3,144	949	67	67
1982-83	5,144	1,418	3,420	976	66	69
1983-84 (Target)	5,295	1,493	3,800	1,150	72	77

Manures and Composts: In India there are large quantities of biomass produced by the plant and animal systems, whose proper economic utility is not fully recognised. The biomass production under the tropical conditions is far more than under temperate conditions. It is estimated that about 1,000 million tonnes of organic wastes in the form of crop residues and another 300 to 400 million tonnes of cattle dung and animal droppings are available annually in the country. These materials contain approximately 6 million tonnes of nitrogen, 2.5 million tonnes of phosphate and 4.5 million tonnes of potassium. Even if a significant portion of these plant nutrients are efficiently recycled, not only our agricultural economy would improve but also crop land would become much better. It is estimated that the total rural compost, which could be prepared from these rural wastes, would be about 50 million tonnes; similarly urban wastes could also contribute about 15 million tonnes of compost. Besides, if the organic materials are utilised for biogas production, before the residue is used as manure, nearly 50 per cent of the rural domestic fuel requirements would be met. The utilisation of these natural manures in addition to chemical fertilisers is an important element in our agricultural strategy. Organic recycling not only helps in the beneficial utilisation of organic wastes but also helps to improve the environment of human habitat.

During the Sixth Plan period steps will be taken to use on a large scale the technology of composting based on locally available materials, including the designing of simple and low cost composter for the rural areas as well as economical big composter for the urban areas. In addition, intensive research work will be conducted to improve the quality of the compost by enriching it with plant nutrients. Steps will be taken to use sewage and sludge on a large scale for soil productivity as well as for energy (biogas). Detailed investigations will be carried out to find out the reliable data on the availability of organic wastes and to conduct a comparative study of the various procedures used in the utilisation of these wastes for the production of fuel and fertilisers. Research will also be undertaken for designing of machines for processing of bio-mass available locally for chopping, pellet making pyrolysis, gasification, etc. from the materials available locally. In view of the energy crisis and likely increase in the cost of inorganic fertilisers as well as their possible shortage, organic recycling will be given high priority during the plan period.

Biogas technology is based on the phenomenon of anaerobic decomposition of organic material, resulting in methane production which serves as a source of fuel for cooking, lighting, propelling engines, etc., and the residual organic matter as rich manure containing plant nutrients in a concentrated form. In India about 300 to 400 million tonnes of animal excreta is available as base for biogas production, besides bulk quantities of plant residues and other organic wastes which could also be mixed with the animal excreta for biogas production. It is estimated that if all these materials are utilised, about 70,000 million cubic metres of methane gas equivalent to about 160 million tonnes of fuelwood could be produced.

TABLE IV
PRODUCTION OF FERTILISERS—1951-52 TO 1983-84

('000 tonnes)

Year	Nitrogenous	Phosphatic	Total
1951-52	28.9	9.8	38.7
1952-53	53.1	7.9	60.5
1953-54	52.9	13.9	66.7
1954-55	68.5	14.3	82.8
1955-56	76.9	12.4	89.2
1956-57	78.8	17.6	96.4
1957-58	81.1	25.8	106.9
1958-59	80.8	31.0	111.8
1959-60	83.7	51.4	135.1
1960-61	112.0	53.7	165.7
1961-62	154.3	65.4	219.7
1962-63	194.2	88.3	282.5
1963-64	219.1	107.8	326.9
1964-65	243.2	131.0	374.3
1965-66	237.9	118.8	356.7
1966-67	309.0	145.7	454.7
1967-68	402.6	207.1	609.8
1968-69	563.0	213.2	776.2
1969-70	730.6	223.7	954.3
1970-71	832.5	228.1	1060.6
1971-72	949.2	290.3	1239.5
1972-73	1054.5	330.3	1384.8
1973-74	1049.9	324.5	1374.4
1974-75	1186.6	331.2	1517.8
1975-76	1508.0	319.7	1827.7
1976-77	1862.4	478.3	2340.7
1977-78	1999.8	699.9	2669.7
1978-79	2173.0	778.0	2951.0
1979-80	2224.5	763.1	2987.4
1980-81	2163.9	841.5	3005.4
1981-82	3144.0	949.0	4093.0
1982-83 (Estimated)	3420.0	976.0	4396.0
1983-84 (Target)	3800.0	1150.0	4950.0

Note: There is no indigenous production of potassic fertilisers which are entirely imported.

Considering the various advantages obtained through biogas plants, including less expensive renewable source of energy for cooking and lighting, etc., improved organic manure, better sanitation and better conservation of natural resources including a reduction in felling of trees, a massive biogas development programme to set up about one million family size plants and 100 community plants during the Sixth Five-Year Plan period is contemplated.

Selected fertiliser statistics relating to capacity, production, etc. are furnished in various Tables I to V.

TABLE V
STATEMENT SHOWING CAPACITY AND PRODUCTION OF FERTILISERS

('000 tonnes)

	Installed capacity as on 1st Dec. 1981	Actual production 1980-81	Estimated production 1981-82
Public Sector			
Fertiliser Corporation of India			
Sindri Modernisation	219	23.0	129.3
Gorakhpur	131	59.8	79.5
Ramagundam	228	26.5	66.1
Talcher	228	6.7	68.9
National Fertilisers Ltd.			
Nangal I	80	51.4	41.2
Nangal II	152	71.8	128.8
Bhatinda	235	99.7	165.6
Panipat	235	68.2	167.9
Hindustan Fertiliser Corporation Ltd.			
Namrup I	45	25.5	30.0
Namrup II	152	Nil	85.0
Durgapur	152	35.1	72.5
Barauni	152	46.6	83.5
Haldia	—	—	—
Fertilisers and Chemicals Travancore Ltd.			
Udyogamandal	82	42.0	43.0
Cochin I	152	113.2	115.0
Cochin II	40	15.1	17.0
Rashtriya Chemicals and Fertilisers Ltd.			
Trombay	90	85.9	84.4
Trombay IV	75	51.3	56.0
Trombay V	—	—	22.6
Madras Fertilisers Ltd.			
Madras	176	163.8	148.4
Steel Authority of India Ltd.			
Rourkela	120	35.8	68.7
Neyveli Lignite Corporation			
Neyveli	70	61.7	46..0
By product	24	16.3	20.6
Private Sector			
Gujarat State Fertiliser Company			
Baroda	236	176.5	184.0

TABLE V
STATEMENT SHOWING CAPACITY AND PRODUCTION OF FERTILISERS—*(Contd.)*

('000 tonnes)

	Installed capacity as on 1st Dec. 1981	Actual production 1980-81	Estimated production 1981-82
Coromandal Fertilisers Ltd.			
Vizag	84	56.9	65.1
Shriram Chemical & Fertilisers			
Kota	152	117.0	115.0
Indian Explosives Ltd.			
(Kanpur Exis. Plant)	207	130.6	177.0
(Kanpur Exp. Plant)	103	130.6	25.5
Zuari Agro Chemicals Ltd.			
Goa	171	43.3	129.0
Southern Petro-chemical Industries Corporation Ltd.			
Tuticorin	258	208.2	206.8
Mangalore Chemicals and Fertilisers Ltd.			
Mangalore	156	83.7	143.4
E.I.D. Parry India Ltd.			
Ennore	16	7.9	8.5
Hari Fertilisers			
Varanasi	10	1.8	2.4
Gujarat Narmada Valley Fertiliser Corporation			
Bharuch	—	—	23.0
By Product	4	3.2	3.6
Cooperative Sector			
Kalol/Kandla	215	225.1	205.3
Kandla Expansion	45	—	30.8
Phulpur	228	10.1	165.2
TOTAL	4,723	2,163.7	3,224.6

TABLE V
STATEMENT SHOWING CAPACITY AND PRODUCTION OF FERTILISERS—*(Contd.)*

('000 tonnes)

	Installed capacity as on 1st Dec. 1981	Actual production 1980-81	Estimated production 1981-82
P_2O_5			
Public Sector			
Fertiliser Corporation of India			
Sindri Rationalisation	150	18.0	33.3
Fertilisers & Chemicals Travancore Ltd.			
Udyogamandal	44	21.3	25.0
Cochin II	114	49.5	51.0
Rashtriya Chemicals and Fertilisers Ltd.			
Trombay	45	39.5	40.0
Trombay IV	75	51.3	56.0
Madras Fertilisers Ltd.			
Madras	112	103.9	104.8
Hindustan Copper Ltd.			
Khetri	90	5.6	10.7
SSP Units	35	11.0	15.5
Private Sector			
Gujarat State Fertilisers Company			
Baroda	50	43.0	39.3
Coromondal Fertilisers Ltd.			
Vizag	104	68.4	69.1
Zuari Agro Chemical Ltd.			
Goa	42	7.8	35.4
Southern Petrochemical Industries Corporation Ltd.			
Tuticorin	73	58.0	55.2
E.I.D. Parry India Ltd.			
Ennore	10	9.9	10.5
SSP Units	211	161.8	163.4
Cooperative Sector			
Kandla	127	192.5	155.4
Kandla Expansion	133	—	82.2
TOTAL	1,415	841.5	946.8

PESTICIDES

PESTICIDES, it is aptly said, is the chemistry of human survival in a world of exploding populations and the growing spectra of new insects and pests which compete with mankind for food and space. It is perhaps the only weapon available to man to augment his food resources and save himself from the scourge of diseases spread by pests. Pest control as a weapon was visualised even in ancient texts like scriptures of all great religions like Hinduism, Islam, Christianity, Judaism and the latter day offshoots from these. Thus as long ago as 1000 B.C. the Greek poet Homer visualised for the modern man "the pest-averting sulphur". The Bible talks of the palmerworm, the locust, the cankerworm and pestilence. The Vedas talk of Brahmins using simple water ring to ward off ants which compete for his food. In 1850, Duchatel dusted sulphur on foliage. Then came Paris Green in 1867 and eight years later petroleum products like kerosene, coal oil and whale oil. In 1882, Bordeaux mixture was employed to stem downy mildew. At the beginning of this century the era of chemicals as a major input began and in 1922 airplane became the "insecticide tank" to keep cotton pests at bay. Synthetic organic fungicides made their appearance in 1940. Two years later Paul Muller's dream insecticide DDT made its debut for control of louse, a vector of typhus fever hitting soldiers in camps. By 1947 organic phosphorus insecticides were introduced. In 1956 antibiotics also lent their hand in saving plants from diseases.

The term Pesticides was coined in the forties as a collective group to cover materials called "economic poisons" and the like. They are broadly classified as: a) Insecticides for control of insect pests; b) Nematicides for checking nematodes; c) Fungicide for control of plant pathogens; d) Acaricide for control of mites; e) Weedicide (herbicide) for eradication of unwanted plants/weeds; and f) Rodenticide to check rodents. Others in the category are Molluscide, Algaecide, Plant Growth Regulants, Pheromones and Repellents.

Inorganic insecticides belonging to arsenical and fluorine groups were used in early days only to become obsolete because of toxicity hazards. Some of the commonly used plant origin insecticides are Nicotine, Pyrethroids and Rotenoids. Among the chlorinated hydrocarbons are DDT, BHC, Lindane, Chlordane, Heptachlor, Aldrin, Dieldrin and Endosulfan. Among the organophosphorus compounds are Parathion, Diazinon, Azinphos, Malathion, Carbophenethion, Dichlorvos, Methyl Demeton, Thiometon, Phosphamidon, Dimethoate, Menazon, etc. The carbamate group consists of carbaryl. Besides, antibiotics are also in the picture.

Economic and social benefits stemming from the use of pesticides are many. In 1968 pesticides helped West African countries to produce cocoa and cotton worth $139 million. The locust cycle against the war fought for 14 years was tamed in 18 months. In the U.S., $1.5 million will be lost if pesticides are denied to Illinois, Michigan, Minnesota and Wisconsin. Sri Lanka, Indonesia and South India lost tea production worth Rs. 32 crores because of failure to stem blight control.

Manufacture: In India prior to 1952 only pyrethrum extract and lime sulphur wash were prepared and used as pesticides. In that year a private concern established a BHC plant at Rishra, and three years later the Govt. of India set up a DDT plant in New Delhi. The scientific use of pesticides in plant protection and public health began in 1947.

The gradual demand for these two insecticides spurred the Govt. of India to set up in the public sector plants for basic chemicals. The Hindustan Insecticides Ltd. followed by Hindustan Organic Chemicals have their plants operating in Delhi, Maharashtra and Kerala. Whereas DDT technical is under public sector, BHC technical is produced in the private sector also.

Several agencies collaborate in saving grains from the seed to storage. The National Seeds Corporation is engaged in producing quality seeds treated with disinfectants while the Food Corporation of India adopts fumigation and rodent control steps to save produce.

Production and Consumption: By 1955, three technical pesticides were produced locally which rose to 9 in 1961. Today over 45 technical grade pesticides are produced in India. The Indian pesticide industry caters to the needs of agriculture as well as health programmes. Approximately 15—20 per cent of the total pesticide consumption is for public health and the balance goes to agriculture. Compared to developed countries like Japan, the U.S. and the West, the average consumption per hectare in India is only 300 gm. A look at the consumption pattern reveals a remarkable rise from 500 tons in 1955 to approximately 59,000 tons in 1976. The following table throws some light on consumption pattern:

TABLE I
Consumption

	1974	1978
Insecticides	72.6%	70.9%
Fungicides	22.4%	19.3%
Herbicides	3.3%	7.3%
Rodenticides	0.4%	0.4%
Fumigants	1.3%	2.3%

According to the working group on pesticides industry for the rolling plan, the installed capacity and estimated production are as follows:

TABLE II
Production

Year	Installed Capacity (mt)	Estimated Production
1977	50,450	39,610
1980-81	68,000	54,000
1981-82	73,000	59,000
1982-83	80,000	65,000

India does import sophisticated pesticides as well as conventional ones to meet the shortfall in demand roughly costing over Rs. 40 crores.

Research: Some of the chemicals manufactured in India are based on indigenous technology and they include chemicals like malathion, endosulfan, copper oxychloride, thiram, etc. Indigenous technology in the basic manufacture apart from the private sector's contribution rests mainly with research carried out by National Chemicals Laboratory, Pune, one among the CSIR laboratories. Malathion, the technology of which was developed by a private company is now under production in Hindustan Insecticides plant at Rasayani, Maharashtra. The Pune institute, the IARI, Delhi, CFTRI, Mysore and the regional research laboratories at Hyderabad and Jammu have considerable joint research and development programmes as a result of which several products are under different stages of commercialisation.

The Insecticides Act: In order to protect consumers and the public, the Govt. of India enacted legislation called the Insecticides Act of 1968 and rules under it in 1971. Under it all insecticides are required to be compulsorily registered by the Registration Committee constituted under Section 5 of the Act.

The Central Insecticides Board has been vested with powers to bring all under a disciplined code. It functions as an advisory body to the Union Agriculture Ministry. As a sequel to the toxicity problem, the Registration Committee has banned Endrin.

ELECTRONICS

THE Electronics Industry is making rapid strides the world over. The computer and digital controls are fast becoming part and parcel of varied and various industrial activities. A new dimension has been given to medical diagnosis and treatment, as well as exploration of space, use of satellites in global communications, weather forecasts and safety in transport system by air and sea. Entertainment electronics is increasingly becoming popular in all countries.

Electronic equipments can be categorised as entertainment electronics (radios, T.V., tape recorders videos, etc.), telecommunication equipments (microwave, trans receivers, multiplexing equipment, etc.), defence equipments (radars, sonars, etc.), consumer electronics and office equipments (computers and process control equipments, calculators, computer peripherals) and medical electronics (X-rays, ECG, pacemakers, etc). The manufacture of equipment required by the telecommunications and defence departments in our country is reserved for the public sector while entertainment, medical and consumer equipments is allocated to the small and medium sector.

This industry has the largest employment potential with the highest employment to investment ratio. There are 150 units in the public sector and 1,800 units in the small-scale sector providing employment to over 178,000 workers. Manufacture involves extremely sophisticated components with high rate of obsolescence and responds well to the small and medium sector

A beginning was made in 1950 when two major factories—The Indian Telephone Industries and Bharat Electronics Ltd.—were set up to meet the growing needs of telecommunications and defence departments. A few private firms indulged in manufacture of radio receivers. Computerisation began in 1955 when the Indian Statistical Institute, Calcutta, set up a first generation machine. As an industry it was, however, launched only in 1971 with the manufacture of the first Indian computer TDC-12 by the Electronics Corporation of India Ltd. (ECIL). Recently the first indigenously produced and probably the cheapest home computer, the EIKO-I, was introduced into the market in November 1983, by Eiko Computers Pvt. Ltd., a company promoted by a Singapore based group of non-resident Indians.

To investigate the potentialities and the status of electronics the Government set up a committee in 1963 under the Chairmanship of Homi Bhabha, which led to the formation of Electronics Committee in 1966. This committee was later replaced by the Electronics Commission in 1971. To tap the vast export potential and compete the foreign market the Government set up a 100 per cent export-oriented free trade zone in Santa Cruz, Bombay (SEEPZ) in 1974.

Electronic products are fast catching up in India and are popular aids to the busy housewife.

Even a brief survey of developments in the country will indicate the vital support offered by the electronics industry. More than 80 per cent of India's population is now covered by the mass communication media like radio and television. The defence preparedness is now based on the indigenously manufactured radars and other sophisticated systems, the process control instrumentation is being increasingly used for economic running of different processes and manufacturing industries like fertilizers, petrochemicals, etc. Indigenously produced computers are being used in some cases. Electronics plays a pivotal role in the control of nuclear reactors and optimal distribution of power through the grids. The launching of the first Indian satellite was testimony of our ability to design and implement complex projects involving myriad of electronic systems.

Growth of Electronics: During the last ten years, the production of electronic equipment and components has increased tremendously. Table 1 gives a profile of the production of electronic items over the last eight years. During the last few years many technical entrepreneurs have started electronics industry in the small scale sector. The commercial viability of such small scale units was demonstrated through the successful manufacture of items in consumer electronics and instrumentation area. The private sector is also responsible for substantial export of electronic items and has entered into areas like radio frequency cables, microwave components, digital instruments, control equipment, etc.

Export of electronic items during 1980 was worth Rs. 418 million. The value of exports increased to Rs. 564 million during 1981 and further to Rs. 839 million during 1982.

Consumer Electronics: The main items in this sector are radio, T.V. tape recorders, record players and public address systems. The total production in this sector increased from Rs. 1,790 million in 1979 to Rs. 2,140 million in 1980 registering a growth of 19.6 per cent. The growth rate in the value of production at Rs. 2,460 million during 1981 was 15.0 per cent and in 1982, the value of production at Rs. 3,370 million went up by 37.0 per cent over that of 1981.

Interestingly, the value of consumer electronics production had formed 30.4 per cent of the total electronics output in 1971. The percentage proportion, however, was lower at 28.0 per cent in 1982

Among the various consumer electronics items, the production value of radio receivers is targeted to go up by 22.0 per cent per annum from Rs. 1,944 million in 1979-80 to Rs. 5,225 million in 1984-85. The production target for T.V. receivers is 16.0 per cent per annum from Rs. 845 million to Rs. 1,770 million during the same period.

In the case of calculators, the annual percentage rise has been targeted at 25.0 per cent from Rs. 105 million in 1979-80 to Rs. 320 million in 1984-85.

Telecommunication Equipment:

The demand for sophisticated telecommunication equipment has been rising rapidly in the country. A steady growth rate of 10% per annum in the domestic production has been maintained for a long time. The production of communication electronic equipment has increased to Rs. 1,845 million in 1980 from a level of Rs. 420 million in 1971-72. The production fell by 16.5 per cent in 1981 but rose sharply by 65.6 per cent to 2,550 million in 1982 from Rs. 1,540 million in 1981.

Since India became independent, the telecommunication network has grown at a rapid pace. Today we have more than 16,000 route kms. of coaxial systems and over 14,000 route kms. of microwave systems in the Indian Posts and Telegraphs network. The Indian Railway has an additional microwave LOS network consisting of 11,000 route kms. Another 3,500 route kms. is planned during the period ending 1983, by the Railways. In the area of microwave, 2 GHZ and 7 GHZ narrow band systems upto 300 channels and 4 and 6 GHZ systems with 1800 channel capacity have been developed in India. A 2700 channel system is already under development. It has now become possible to supply indigenously developed microwave equipment for the second earth satellite station at Dehradun, near Delhi.

With over 2.25 million subscribers connected about 7,000 telephone exchanges, the public switching network covers a vast area of the country. Subscriber Trunk Dialling (STD) links more than 138 cities in India. A telex network connects over 21,000

Table I

Production of Electronic Equipment and Components during the last five years

(Rs. million)

Calendar year	Consumer Electronics	Communication Equipment & Mass Communications	Aerospace & Defence Equipment	Computers, Control & Instruments	Equipment total	Components	SEEPZ Production for export	Equipment & Components total
1975	820	995	490	585	2,890	750	5	3,645
1976	1,010	1,120	500	640	3,270	800	30	4,100
1977	1,290	1,275	550	1,025	4,140	905	40	5,085
1978	1,575	1,275	620	1,190	4,660	1,170	75	5,905
1979	1,790	1,285	605	1,310	4,990	1,360	115	6,465
1980	2,140	1,845	680	1,600	6,265	1,630	165	8,060
1981	2,460	1,540	690	1,885	6,575	1,730	255	8,560
1982	3,370	2,550	1,085	2,420	9,425	2,140	485	12,050

subscribers in about 117 cities. During the Sixth Plan period, against a demand of about Rs. 12,000 million of equipment for the civil sector, equipment production is expected to be Rs. 9,000 million and imports may exceed Rs. 3,600 million. It is estimated that by 1988-89 total cumulative demand for the period 1978-89 would be about Rs. 30,000 million.

At present the manufacture of telephone equipment is carried out by the state-owned Indian Telephone Industries Limited (ITI), which has several units located in different parts of the country. Over the years the ITI has been manufacturing electromechanical exchanges both of the Strowger and Crossbar types. The Telecommunication Research Centre of the Posts and Telegraphs Department has a development programme to produce electronic switching systems using both Space Division Multiplexing (SDM) and Time Division Multiplexing (TDM). Production of electronic PABXs using wire controlled logic has already commenced.

Five major state owned enterprises, Bharat Electronic Limited, Indian Telephone Industries, Electronics Corporation of India Limited, Hindustan Teleprinters Ltd. and Hindustan Cables Limited, cater to the telecommunication needs of the country. There are plans to supplement these efforts in some of the newly set up state electronic development corporations.

Computers: In the field of computers, more than 500 systems are presently in operation in the country. Out of this, a little over a hundred systems are of indigenous origin. On the manufacturing front, the indigenous computer production has increased from Rs. 285 million in 1981 to Rs. 480 million in 1982. There is growth in the areas of mini computers and micro processors based systems as well as in the mini and midi computers.

Midi computers are being manufactured by Electronics Corporation of India (ECIL) and Indian Computers Indian Manufacturers Ltd. (ICIM), while the lower and mini computers are available from indigenous sources catering to diverse applications.

The Government's policy for the manufacture of microprocessor base systems is to give preference to medium and small scale entrepreneurs with the requisite background and experience. A few such units have been set up by highly qualified entrepreneurs and are currently manufacturing multi-terminal data entry systems etc. A major advantage in India is that a pool of skilled and trained manpower is available for the development of software. At present, a large number of groups are actively involved with software development and export. India exported computer software worth Rs. 100 million in 1981-82 and Rs. 130 million in 1982-83.

In order to gain experience in development and application of computer and related technologies two national centres namely, **National Centre for Software Development and Computing Techniques (NCSDCT) and National Informatics Centre (NIC)** have been set up with the assistance of UNDP. NCSDCT is functioning at the Tata Institute of Fundamental Research at Bombay. The primary objectives of this centre are to develop software tools and computing techniques to support the growth of a major self-reliant computer and associated semiconductor industry. The National Informatics Centre at Delhi was set up for developing methodologies relating to large data bases and their development. Experiments of data communication are also in progress. The Department of Electronics is also setting up regional computer centres at various locations in the country.

Considering the importance of maintenance and efficient operation of wide variety of computers already installed in the country, and to be installed, the Department of Electronics has set up a **Computer Maintenance Corporation** in the public sector. This corporation is responsible for coordinating and implementing all aspects of system design and maintenance of computers. It will also stock and ensure continuous and fast supply of spares for the systems in operation.

Another notable development is the efforts made to generate computer software for exports. With the highly skilled software personnel available in the country, there is considerable potential for building up this industry, especially for exports. India has started exporting computer software to countries in the West, USSR and Eastern Europe.

The import policy for 1983-84, permitted non-resident Indians to import second-hand computers without any clearance. The only stipulation has been that the value of such old computers should not exceed Rs. 0.5 million.

Control and Industrial Electronics: In the field of instrument servo components, two of the prominent groups are Servo Control Division at ECIL and Control Guidance & Instruments Division of SSTC. Indigenous production of servo components has been established with the manufacture of servo and hysteresis motors, synchros and rate gyropackages. There are about 75 units engaged in the manufacture of process control instruments. The types of instruments produced cover temperature measurement using mercury, resistance and pyrometric methods, gauges for pressure measurement, strain gauge instrumentation and a variety of analysers. **Instrumentation Limited,** (for details see Government of India Undertakings) is producing a wide variety of pneumatic instruments. The items manufactured in the field of industrial electronics cover a wide variety of drives, numerical control machines, dielectric, induction, furnaces, etc. The development in this field has been rapid and the basic components like thyristors and high power silicon diodes are being manufactured. New areas in industrial electronics like pollution monitoring equipment and agro-electronic instruments are growing rapidly. Total value of industrial electronics output by 1984-85 has been targeted to reach Rs. 3,500 million as against the actual value of production of Rs. 1,150 million in 1979-80.

Instruments: A wide variety of instruments like test and measuring, analytical, nuclear, geoscientific etc. are being manufactured in the small scale sector. The test and measuring instruments manufactured include instruments like digital multimeter, admittance bridge, oscillo-scopes, communication test equipment and TV test instruments. The analytical instruments manufactured include pH meters, conductivity meters, spectrophotometers and calorimeters. The production of nuclear instruments like GM counters, phase analysis equipment, reactor control instruments, whole body counters is mainly concentrated at ECIL, Hyderabad. The value of test and measuring instruments, analytical instruments, etc. has been estimated to go up by an annual rate of 25.8 per cent during the Sixth Plan period i.e. from Rs. 325 million in 1979-80 to Rs. 1,025 million in 1984-85.

Medical Electronic Equipment: One of the spin-offs due to increasing sophistication in electronics in the emergence of a new area called bio-medical engineering or medical electronics. In India, though the field of medical electronics is still in its infancy, it has made a significant start. New equipments in increasing numbers are currently being used in many hospitals. The production of medical electronics equipment is mainly in the small and medium scale industries both in the public and private sectors. X-ray equipment constitutes the major share of the equipment manufactured. Some of the other equipments currently being manufactured are electro-cardiograph, respirator, foetus heart detector, hearing aid and stimulator.

Components & Materials: In the field of components, the production has risen from mere Rs. 65 million in 1965-66 to Rs. 1,630 million in 1980. The value of production inproved to 1,730 million in 1981 and further to 2,140 million in 1982. However, as compared to consumer grade components, the production of professional components is lagging behind. Consumer grade components in addition to meeting the local demand are also being exported.

In the area of electron tubes, the production includes that of receiving and transmitting tubes, magnetrons, x-ray tubes, TV picture tubes and mixie tubes. In the area of semi-conductor devices, most of the production is of germanium and silicon discrete devices. As regards integrated circuits, Bharat Electronics Limited (BEL) is producing TTL ICs with indigenous knowhow. Hybrid microcircuits are made by BEL and ITI. The planned Semiconductor Complex near Chandigarh will be manufacturing MOS LSI, bipolar LSI and LED's.

In the area of passive components, different varieties of resistors and capacitors are manufactured. About a dozen manufacturers are making coaxial, rack and panel and printed circuit connectors. Relays are also being produced in a fairly wide range. ITI Bangalore, makes telephone type relays for its telecommunication equipment switches which include.rotary wafer, push button, toggle snapaction, etc. are also being produced by more than 25 manufacturers. Other components like crystals. transducers, magnetic components, printed circuit boards are also being manufactured. In so far as materials are concerned, the electronic component industry still depends on imports to the tune of over 60 per cent. The production of some ultra-pure materials has been established at Special Materials Plant, Hyderabad. A wide variety of soft and hard ferrites are already under production catering to most of the requirements.

According to available reports, the Department of Electronics (DOE) has plans involving a major capital investment thrust in electronics. With an estimated outlay of Rs. 1,000 million in the coming four to five years, the DOE has undertaken three key projects covering SCL, the microwave tube centre and the national silicon facility.

The revised estimates of plan outlay during 1982-83 was Rs. 470 million as against the budget estimates of Rs. 375 million. The higher outlay was on account of expenditure on Semi-Conductor Complex Limited (SCL). During 1983-84, both the plan outlay and budget estimates for the DOE have been reduced at Rs. 320 million.

PUBLIC SECTOR UNDERTAKINGS

Following are the names of the undertakings in the electronics field. Details about their production and addresses are given in the chapter on Government of India Undertakings.

1. Indian Telephone Industries (ITI). 2. Bharat Electronics Limited (BEL). 3. Hindustan Teleprinters Limited (HTL). 4. Electronics Corporation of India Limited (ECIL). 5. Instrumentation Limited (IL). 6. Hindustan Aeronautics Limited (HAL). 7. Central Electronics Limited (CEL). 8. Electronics Trade & Technology Development Corporation (ETTDC). 9. State Electronics Development Corporation (SEDC). 10. Semi Conductor Complex Ltd.

Private Undertakings: There are large number of private undertakings like Philips, Bush, Murphy, Weston, Televista, Continental Devices, Permanent Magnets, Amphetronix etc. who are contributing substantially to the growth of the electronics industry.

In view of the growing importance of electronics, the Sixth Five Year Plan had envisaged a plan outlay of Rs. 1,412 million during the period 1980-85. The plan outlay amounted to Rs. 165 million in 1980-81, Rs. 222 million in 1981-82, Rs. 375 million in 1982-83 and Rs. 320 million in 1983-84.

DRUGS & PHARMACEUTICALS

THE drugs and pharmaceutical industry is primarily a research-based process industry. Till the middle of the 19th century, Western medical treatment consisted of galenicals and other inorganic chemical preparations. India then served as the main source for raw materials like cinchona bark, nux vomica seeds and poppy pods etc. which were shipped to England and came back in the form of extracts or tinctures for the use of the physicians. After Louis Pasteur indentified the pathogenic bacteria, India became the focal point for the study of tropical infectious diseases which took a heavy toll of the British army personnel. That led to the establishment of some Government-sponsored enterprises namely, the Haffkine Institute in Bombay in 1899, the King Institute of Preventive Medicine in Madras in 1904, the Central Research Institute at Kasauli in 1905, and the Pasteur Institute in Coonoor in 1907.

The first Indian-owned drug manufacturing factory, the Bengal Chemical and Pharmaceutical Works, was set up in Calcutta in 1901 by Prof. P. C. Ray.

Up to 1939 India imported British drugs. During and after World War II, the shortage of medicines led to the setting up of many indigenous small manufacturers who produced distilled water, saline tablets, formulations and other alkaloids and the country was on its way to self-sufficiency in sera and vaccines, meeting about 70 per cent of the demand by 1943.

The turning point came after independence. Most of the British and the non-British firms started trading operations in India and the competition was stiff for local manufacturers to withstand. The Industrial Policy Resolution of 1956 identified the problem and categorised pharmaceutical industry as operable both by public and private sector. More educational facilities were also created. The Haffkine Institute was the first drug manufacturing body in the public sector. Next came the Hindustan Antibiotics Ltd. established in 1954 and in the same year by a Government notification most of the foreign firms were incorporated as Indian subsidiaries. The Hindustan Organic Chemicals started producing basic chemicals in 1958. The Government also entered an agreement with the U.S.S.R. in the same year to manufacture antibiotics, synthetic drugs and surgical equipments. The Indian Drugs and Pharmaceuticals Ltd., as an apex body, was also set up to supervise the three public sector units.

In order to rationalise prices the Drugs (Prices Control) Order, 1970 was promulgated.

The trend of modernised expansion which started with the Pharmaceutical Inquiry Committee's Report of 1954 has ever since witnessed not only a horizontal but a vertical expansion as well both in the public and private sectors. Today from a mere processing and formulations making industry it has developed into the manufacturer of finished pharmaceutical products and with its superior and advanced technological knowhow it is now considered to be the largest and most modern pharmaceutical industry among the developing countries according to UNIDO.

There are more than 200 Indian multinational companies working as joint ventures in Malaysia, Kenya, Nigeria, Canada, West Germany, the United Kingdom and also the U.S.

The Government has initiated a policy to encourage research and apart from Government-sponsored research bodies there are many private firms also engaged in carrying out research in the pharmaceutical field.

The industry, in general, is concentrated in Maharashtra, Gujarat and West Bengal. The largest single group of drugs marketed today is vitamins.

Present Structure: At present, the industry consists of more than 150 units in the 'organised sector', 4 Public Sector units, one Govt. managed unit and about 3,000 units in the 'Small Scale Sector'. There were 31 foreign drug companies (direct foreign equity exceeding 40 per cent) at the time of announcement of the Drug Policy in 1978. At present the number of such companies is 23. Decisions have been taken, in accordance with the Drug Policy and FERA, on the permissible levels of foreign equity in each case. Certain companies have voluntarily offered to reduce their foreign equity. There are likely to be only 13 companies with direct foreign equity above 40 per cent after the process of dilution is complete.

Production: Most of the drugs including the important life-saving medicines covering wide range of antibiotics, e.g. Penicillin, Streptomycin, Tetracyclines, Chloramphenicols, Erythromycin, etc., Sulpha drugs including long acting ones, e.g. Sulphasomidine, Sulfamoxole, Sulfadimidine, Phthalyl-Sulphathiazole etc., anti-T.B. drugs e.g. INH, PAS, Thiacetazone, Ethambutol etc., Vitamins, e.g. A, B1, B2, B, C, D, E, P & K. Folic Acid etc., Steroids, e.g. Prednisolone, Hydrocortisone, Betamethasone, Dexamethasone, Nandrolone, Norethisterone, Testosterone, Methyl Testosterone etc., and a host of other synthetics, phyto-chemicals and biological products are now manufactured within the country.

The production of various important drugs in physical terms in the organised sector is given in the following table. Some of these drugs are also produced by the small-scale sector units. Their production figures have, however, not been included in the table.

Production of various important drugs in physical terms during 1960-61, 1978-79, 1979-80, 1980-81 and 1981-82.

Name of drugs	Units	1960-61	1978-79	1979-80	1980-81	1981-82
Penicillin	MMU	39.70	319.95	326.96	336.82	360.61
Streptomycin	Tonnes	—	220.73	220.16	227.33	255.45
Tetracycline Hol.	”	—	123.36	141.09	166.85	188.93
Oxytetracycline	”	2.20	92.65	113.96	129.83	114.28
Vitamin A	MMU	14.50	62.61	58.76	59.85	52.65
Vitamin B_{12}	Kgs.	5.22	162.20	126.53	88.32	159.35
Vitamin C	Tonnes	—	798.68	760.03	594.80	804.48
Analgin	”	—	277.79	346.90	398.79	483.47
Aspirin	”	76.31	1,321.01	995.61	886.46	924.01
PAS and Salts	”	82.99	601.46	481.78	405.46	261.97
INH	”	29.05	81.72	112.53	129.20	110.40
Chloroquin	”	—	42.51	35.16	34.62	58.46
Insulin	MMU	—	1,287.93	1,507.00	1,332.00	2,083.00
Glybenclamide	Kgs.	—	474.00	460.00	731.00	707.00
Ephedrine	”	—	25.37	29.47	22.47	11.65

It is estimated that during the year 1981-82, the production of bulk drugs would be of the order of Rs. 2,750 million and of formulations of the order of Rs. 13,000 million. The following statement gives the figures of production of bulk drugs and formulations during the last four years:—

(Rs. million)

Year	Bulk drugs	Formulations
1978-79	2,000	10,500
1979-80	2,600	11,500
1980-81	2,400	12,000
1981-82	2,890	14,300
1982-83 (anticipated)	3,250	15,450

Expansion: It has been estimated that the total requirement of bulk drugs by 1984-85 would be Rs. 8,150 million which would result in formulations worth Rs. 24,500 million at 1979-80 prices. Taking into account the level of production during 1979-80 and the projects in the pipe line and also the scope for increasing the capacity utilisation — especially in respect of the formulations, the investment needed to achieve the above estimated production during the Sixth Plan period works out to about Rs. 3,250 million.

New Drug Policy: Government's decisions on the recommendations made in the Report of the (Hathi) Committee on Drugs & Pharmaceutical Industry submitted in April, 1975 were announced in the Parliament on March 29, 1978. The decisions include the allocation of a leading role to the Public Sector, fostering the growth of the Indian (including small-scale) sector and regulation of the activities of foreign drug firms in India, as well as rationalisation of pricing and profitability. Twenty drugs are now earmarked for production exclusively by the public sector while 66 items have been left open for licensing for all sectors.

Under the New Drugs Policy, foreign companies would be entitled to formulation licences only for production linked to 'high technology' bulk drugs and grant of such licences to them is subject to the company concerned agreeing to supply 50 per cent of the production of such bulk drugs to non-associated formulations, simultaneously limiting the overall value of formulations to five times the value of bulk drug production.

Bulk Drugs—Import and Distribution: 17 drugs, specified in Appendix 9 of the Import and Export Policy, 1982-83, are canalised for imports through the Chemicals & Pharmaceuticals division of the State Trading Corporation of India Ltd. The imports and distribution of these drugs are made as per the connected policy issued by the Ministry of Petroleum, Chemicals and Fertilizers from time to time. These drugs are sold by the Corporation to various actual users at the prices fixed by the Government.

Price Control: Control over the prices of drugs was first introduced in the country in 1963. The retail prices of drugs then prevailing were frozen and it was provided that prior approval of the Government should be obtained for any increase in prices.

Later in June, 1966, an order was promulgated under which approval of Government for fixing prices of new drugs had to be taken, and, marking of retail prices on containers of drugs was made compulsory.

A comprehensive order namely, the Drugs Prices Control Order was issued in May, 1970, designed to:

1. bring down the prices of those essential drugs whose prices generally remained very high;

2. provide sufficient incentives to the industry to maintain and facilitate its growth from the basic stage and to develop research facilities and expansion in a planned manner;
3. promote diversification of entrepreneurship in the future development of this industry and thereby provide better opportunities for Indian personnel with requisite technical qualifications; and
4. curb excessive profits.

In order to give relief to the drug manufacturing units with a turnover not exceeding Rs. 5 million per annum, they were exempted from the requirement of obtaining Government approval for the prices of their formulations.

The order was amended effective from May 1, 1975 to provide that no retailer shall sell any formulation to the customer at a price exceeding the retail price of the formulation in the price list approved by the Central Government or the price displayed on the label of the container of the formulation whichever is less, plus local taxes, if any payable.

In order to give effect to the Pricing provisions of the New Drugs Policy, Government of India issued on 31st March, 1979, the Drugs (Price Control) Order, 1979 (DPCO, 1979) replacing the Drugs (Pricing Control) Order, 1970. As envisaged under the New Drugs Policy, the Order brings under control three categories of formulations described as Category I, II and III formulations. The DPCO, 1979 provides for ceiling mark-ups on ex-factory cost of production of Category I formulations at 40 per cent, Category II formulations 55 per cent and Category III formulations 100 per cent. In respect of the three categories of formulations, the DPCO provides for Leader Prices, based on the prices of the efficient major manufacturers, which would be the ceiling prices for all manufacturers of such formulations, including those in the Small Scale Sector. Prices which were lower than the Leader Prices, and which were frozen under the provisions of the New Drugs Policy were allowed to go up to the Leader Price level by an amendment to the DPCO, 1979. Prices can go up to the leader level only for those formulations which have the same compositions and are marketed in the same packs as of the Leader Prices notified.

Small-scale units with an annual turnover not exceeding Rs. 5 million continue to be exempt from the requirement of obtaining Government approval for the prices of their formulations except for the leader prices. The leader prices shall be the ceiling sale prices for these units also.

Under the DPCO, 1979 all bulk drugs which are used in the production of price controlled formulations have been placed under price control. In this respect, DPCO, 1979, has improved upon DPCO, 1970 under which firms could declare prices of bulk drugs which had not been categorised as essential under that Order and were obliged to seek Government approval only when they sought to increase these declared prices.

Research and Development: Research laboratories are playing a vital role in the public sector. In Indian Drugs and Pharmaceuticals Ltd., the main objectives have been stabilisation and updating of available technologies, development of new processes in drugs and pharmaceuticals, solution of day-to-day problems and import substitution. While the R & D unit of IDPL at Antibiotics Plant, Rishikesh has facilities for conducting R & D work in various disciplines like mycology, microbiology, biochemistry, organic chemistry, pharmacology etc., and also for the development of newer and better formulations, their R & D unit at Synthetic Drugs Plant, Hyderabad has R & D facilities in the disciplines of chemistry, biology and for pilot plants etc. IDPL has developed process technologies for several essential drugs like N-methyl piperazine, Frusemide, Trimethoprim, Aminophylline, Theophylline, Neomycin sulphate, Diazepam, Glybenclamide, Thiamine mononitrate etc. Of these, several drugs are now being commercially produced.

The Research Laboratory of Hindustan Antibiotics Ltd., was established in 1955 with activities directed towards product development, import substitution etc. Its notable achievement has been the discovery of two new antibiotics namely Hamycin and Aureofungin. It also discovered an Enzymatic process for the production of 6-APA from Penicillin G first crystals. Efforts of Research and Development work have also resulted in developing high yielding strains of "Pencillium Chrysogenum".

In the Private Sector also, there are a number of drug research centres of which those of Bengal Immunity (managed by the Govt.), Sarabhai, Ciba-Geigy and Hoechst are important. These research units have contributed significantly in improving the existing technologies, development of new processes and of new drugs and import substitution of several raw materials and intermediaries.

At present, almost all types of plant equipment and instruments required for the production of bulk drugs and formulations are available indigenously.

In spite of these encouraging developments, overall investment in R & D in India is still insignificant as compared to the very high order of such investment in certain advanced countries of the world. In order to correct this imbalance, the New Drugs Policy has made it obligatory on the part of foreign drug companies, having a turnover in drugs in excess of Rs. 50 million per annum, to invest in R & D facilities within the country at least 20 per cent of their net block and further to spend at least 4 per cent of their sales turnover as recurring expenditure on R & D facilities. Incentives are available to all companies for investment in R & D

PLASTICS

THE plastics industry is essentially a World War II phenomenon when shortage in basic raw materials like rubber, wood, copper, iron, etc. led to a frantic search for a substitute in the form of plastics. A derivative of polymer chemistry, the revolution had already started in 1860s with the production of celluloid.

Plastics is a comparatively new industry in India beginning with the manufacture of soap boxes, combs, ash trays, etc. The foundation for the industry was laid as recently as 1951-60, although the production of phenol formaldehyde started in 1948. The petrochemical-based industry gained momentum after large complexes sprung around Bombay area, the first plant being the Imperial Chemical Industries (ICI) set up in 1958. The major breakthrough came with the development of polyvinyl chloride (PVC).

The development of newer techniques like foam moulding, stretch blow moulding, extrusion, calendering, coating, injection moulding, etc. led to vast expansion in the usage and production of this versatile material. Plastics by virtue of its peculiar qualities, like being strong, durable, lightweight, flexible, appealing, resistant to corrosion and abrasion, less expensive and reusable, have come to be the most extensively used consumer article. It is widely used as construction material like PVC windows, flooring tiles and facia, panels in construction of houses, etc. Packaging industry makes almost 90 per cent use of plastics. It is also used as raw material for equipment for electrical, electronics, tele-communications, transport and furniture-making industries, medicine, surgery, defence, engineering and agriculture. Some of the plastics known as engineering resine is increasingly being used in die casting.

Location of the Industry: There are about 10,000 manufacturing units spread all over the country, 90 per cent of which are in the small-scale sector. Their individual capital investment varies from

Rs. 5,000 to Rs. 500,000, providing employment to nearly 550,000 people directly and indirectly.

Capital Investment; The current total capital investment in plastics industry is about Rs. 11,500 million. For the development of the industry and to make it sufficiently strong, an investment of Rs. 22,000 million over the next ten years is needed.

Public Sector: The public sector made its debut with the incorporation of *The Indian Petrochemicals Corpn. Ltd. (IPCL)* at Vadodara in March, 1969, to develop petrochemical projects based on feedstock available from refineries. (See also chapter on Petro-Chemical Industry.)

Per Capita Consumption: The per capita consumption of plastics in India is one of the lowest in the world. According to the latest available information, Indian consumption is only 0.3 kg. compared to the world average of 11 kg. Per capita consumption of plastics in West Germany is at 95 kg., 85 kg. in South Korea and 35 kg. in U.K.

Agricultural use: Plastic appliances are increasingly used for agricultural operations by preventing seepage losses of water and thus raise irrigational potential.

Exports: Exports of plastics during last five years (in Rs. million): 1977-78: 273.0; 1978-79: 301.9; 1979-80: 356.6; 1980-81: 587.6; 1981-82: 616.8.

Production of Raw Materials

(in tonnes)

Raw material	Installed capacity	1980-81	1981-82	1982-83 (estimated)
THERMOSETS:				
M.F. Moulding Powder	1,500	214	328	350
P.F. Moulding Powder	7,500	4,794	4,556	4,600
U.F. Moulding Powder	5,000	2,845	3,249	3,500
THERMOPLASTICS:				
Polyethylene L.D.	111,000	87,154	94,293	105,000
Polyethylene H.D.	30,000	24,293	31,732	31,500
Polystyrene	23,500	10,205	7,642	11,500
P.V.C. Resins	64,700	42,050	37,037	39,000
C.A. Moulding Powder	7,200	324	291	550

Duties: The rates of basic duty, auxiliary duty and CVD applicable on selected items.

S. No.	Basic (%)	Aux. (%)	CVD (%)	Total (%)
1. Polypropylene	65	30	28.35	150.28
2. High density polyethylene	50	25	42	148.50
3. Low density polyethylene	100	25	42	219.50
4. Medium density polyethylene	100	25	42	219.50
5. ABS moulding powder	100	35	15.75	172.01
6. Polystyrene	150	35	15.75	229.88
7. SAN moulding powder	100	35	15.75	172.01
8. Polycarbonate	100	35	15.75	172.01
9. Poly Acetal resins	100	35	15.75	172.01
10. Polytetra fluoro ethylene	100	35	15.75	172.01
11. Polyvinyl chloride resin	150	—	36.75	241.87
12. Nylon moulding powder	150	35	15.75	229.88
13. Poly phenyle oxide	150	35	15.75	229.88
14. Acrylic moulding powder only for polymethyl methacrylate	150	35	15.75	229.88
15. Cellulose acetate butyrate	60	35	42	176.90
16. PVC resin when imported from Korea, Yugoslavia, Paraguay, Uruguay, Spain etc.	75	—	36.75	139.31
17. Polystyrene (preferential)	75	35	42	143.07
18. HDPE (Yugoslavia, UAR only)	25	25	42	113.00
19. LDPE (Yugoslavia, UAR only)	50	25	42	148.50
20. Polypropylene (Yugoslavia, UAR only)	32.50	30	28.35	108.56
21. Cellulose acetate moulding powder	100	35	42	233.70
22. Cellulose acetate offcuts	100	35	52.5	258.37
23. Cellulose acetate scrap/waste	100	35	42	233.70
24. Cellulose acetate cutting	100	35	52.5	258.37
25. Cellulose acetate sheets/strips	75	20	—	95.00
26. Phenol formaldehyde resins	150	35	15.75	229.88
27. Urea formaldehyde resins	150	35	15.75	229.88
28. Melamine formaldehyde resins	150	35	15.75	229.88
29. Epoxy resins	150	35	15.75	229.88
30. Polyester resins	150	35	15.75	229.88
31. Polybutyl terethalate	150	35	15.75	229.88
32. Poly sulphone	150	35	15.75	229.88
33. Vinyl acetate monomers	70	35	8	121.40

The estimated requirement of plastics for these applications is as follows:

(Tonnes)

Item	1983	1988
LDPE	16,800	36,600
HDPE	3,200	5,400
PVC	6,000	11,000
EPS	400	700
Total	26,400	53,700

Imports of Plastic Raw Materials

(Qt.: Tonnes; Value: Rs in million)

Products	1980-81		1981-82	
	Qty.	Value	Qty.	Value
P.F. Moulding Powder	165	1.2	421	3.4
U.F. Moulding Powder	—	—	25	0.4
Polyethylene L.D.	2,365	17.3	4,063	31.4
Polyethylene H.D.	31,361	243.5	36,939	278.5
Polystyrene	424	2.8	347	3.2
P.V.C. Resins	32,062	264.0	66,355	420.3
C.A. Moulding Powder	62	0.5	63	0.6

PAPER

THE word 'paper' is etymologically linked to *papyrus*, a plant which flourished in abundance in ancient Egypt and which constituted one of the chief writing materials of the primeval man. Several libraries in Europe boast of manuscripts, chiefly in Latin, written on *papyrus*. The art of paper making, however, originated in China during the second century B.C. The chinese maintained a veil of secrecy over the art of paper making and it did not become known to the outside world till the advent of the 8th century A.D. Before the advent of modern machine-made paper industry in India, the country boasted of a thriving hand-made paper industry which was first introduced in India in the 13th century by the Mughals. The improved hand-made paper produced by the Indian industry during the second half of the 18th century was mainly the result of pioneering efforts of Dr. William Carey and other Christian missionaries of Serampore in West Bengal. That paper was of very good quality and books made from it are still resistant to the ravages of insects, as can be seen from the collection preserved in Serampore College. The production of machine-made paper, following the failure of the Serampore experiment, commenced in 1870, with the establishment of a paper mill on the Hooghly. Soon after, a number of units were set up.

In the period since Independence, our paper industry had maintained a steady progress, though it is not still out of the woods. A wide gap between domestic demand and production exists which has rendered inevitable substantial dependence on imports. At the beginning of the First Plan, there were 17 units in the Industry with an aggregate capacity of 0.14 million tonnes; by 1981, the number of units rose to 159 with a total installed capacity of 1.82 million tonnes.

Though the paper industry is largely in the private sector, several projects are under execution in the public sector. The Nagaland pulp and paper industry project went into production in 1981-82. Due to technical problems, the plant is not working up to optimum capacity. The capacity of the plant is 33,000 tonnes per annum. Two large projects, Nowgong, and Cachar projects, with an annual capacity of 100,000 tonnes each are under execution and are likely to be operational by 1984-85.

Newsprint: The supply position has improved during the past two years, with the commissioning of two projects—the Kerala newsprint projects of the Hindustan Paper Corporation and the newsprint plant of Mysore Paper Mills—in addition to the existing National Newsprint and Paper Mills. Due to this development, the installed capacity of newsprint industry has increased from 0.15 million tonnes in 1981-82 to 0.23 million tonnes in 1982-83.

At present, there are four rayon grade pulp units and one paper grade pulp unit in the country, all of which are in the private sector. The installed capacity of the four rayon grade pulp units increased from 0.15 million tonnes in 1980 to 0.18 million tonnes in 1981, while the capacity of the paper grade pulp unit was unchanged at 40,000 tonnes per annum in 1981. The production of the four rayon grade units which aggregated to 0.135 million tonnes in 1980, registered a small increase to 0.143 million tonnes in 1981. The production of paper grade pulp was 37,410 tonnes and 31,235 tonnes respectively in 1980-81 and 1981-82.

Security Paper Mill: At Hoshangabad in Madhya Pradesh, a security paper mill, set up with British collaboration in 1968, is in operation to manufacture 28,000 tonnes of special quality paper for currency and bank notes.

No. of Persons employed: Precise estimates are lacking but the aggregate employment in the industry is about 70,000.

Ranking in the world Market: India occupies only the 20th place among the world's paper producing countries.

Per capita consumption: The per capita consumption of paper in India is among the lowest in the world. It was only 2 kgs. in 1980 as compared to 272 kgs. in the U.S., 205 kgs. in Sweden, 192 kgs. in Canada, 168 kgs. in Switzerland, 155 kgs. in West Germany, 15 kgs. in Iran, 11 kgs. in Thailand and 9 kgs. in Iraq.

PRODUCTION OF PAPER

The total production of all categories of paper and paper board declined marginally from 1.24 million tonnes in 1981-82 to 1.20 million tonnes in 1982-83. The target for 1983-84 is 1.40 million tonnes. The recent trend in the output of paper and paper board is given below:

Year	Production in million tonnes
1960-61	0.35
1965-66	0.558
1970-71	0.755
1975-76	0.836
1976-77	0.899
1977-78	0.961
1978-79	1.011
1979-80	1.058
1980-81	1.145
1981-82	1.242
1982-83	1.202

Although the production of paper in the country is on the rise, it is still short of the requirement. According to the Sixth Plan document, the demand for paper is likely to rise to 1.54 million tonnes by 1984-85 while the indigenous production may increase to 1.5 million tonnes by that year. The demand-supply gap would thus be substantial at 40,000 tonnes by the end of the Sixth Plan period.

As regards newsprint, the domestic output has picked up of late. The production level has increased from 64,000 tonnes in 1981-82 to 0.12 million tonnes in 1982-83, mainly because of the commissioning of the Kerala newsprint project with an annual capacity of 80,000 tonnes and of the newsprint projects of Mysore Paper Mills with an annual capacity of 75,000 tonnes. It is expected that, with better working of these units, output may attain a level of 0.18 million tonnes during 1983-84, and of 0.2 million tonnes by 1984-85. Despite this, the supply would fall short of our requirements and the gap has to be met by imports.

Value of imports: Paper and Newsprint: A synoptic idea of the huge dependence on overseas markets for meeting our requirements of paper and newsprint can be had from the following table.

(Rs. million)

Year	Paper	Newsprint
1970-71	251	187
1971-72	349	276
1972-73	314	205
1973-74	292	178
1974-75	595	450
1975-76	577	383
1976-77	611	472
1977-78	818	625
1978-79	1,047	792
1979-80	1,588	1,126
1980-81	1,865	1,332
1981-82	2,403	1,589

Exports: Recent trend in the exports of paper and paper boards from India are presented in the table below:

Year	Value (Rs. Million)
1970-71	39.4
1971-72	14.3
1972-73	21.4
1973-74	43.1
1974-75	38.8
1975-76	16.2
1976-77	15.1
1977-78	37.9
1978-79	35.8
1979-80	53.0
1980-81	59.0

GENERAL

Both newsprint and paper are subject to statutory price controls. In the case of newsprint, the imports are canalised through the State Trading Corporation and the Union Budget for 1981-82 imposed a levy of 15 per cent customs duty on imported newsprint. However, in the budget for 1983-84, newsprint was exempted from the increase in the auxiliary duty of customs that was imposed on many items. Under the present rules, paper mills are required to reserve 25 per cent of their production of white printing paper which has to be sold at the Government stipulated price from time to time.

In the case of paper and paperboard also, the Union budget for 1983-84 contained a number of proposals. The basis of duty was modified to *ad valorem*-cum-specific rate and a uniform rate adopted for printing, writing and most of the other varieties of paper and paperboard. However, the existing concessional basic rate of 5 per cent *ad valorem* in respect of white printing paper supplied to the Director-General, Supplies and Disposals, or for educational purposes was not disturbed. Some of the concessions enjoyed by the small paper mill were rationalised and the extent of exemptions was suitably modified to enable them to boost t output.

During 1981, the installed capacity of the rayon grade pu industry increased by 26,500 tonnes, the aggregate capacity bei 0.177 million tonnes per annum. A mini-paper plant, in the priva sector, with a capacity of 15 tonnes of craft paper a day, has al been set up at Manalur in Tamil Nadu in May 1983.

Hindustan Paper Corporation (**HPC**) is engaged in the implement tion of following projects:

(*i*) Kerala Newsprint Project (80,000 tonnes of newsprint p annum). (*ii*) Nagaland Pulp and Paper Project (33,000 tonnes p annum). (*iii*) Expansion of Mandya National Paper Mills Lt (39,600 tonnes per annum). (*iv*) Nowgong Pulp and Paper Proje (100,000 tonnes). (*v*) Cachar Pulp and Paper Project (100,000 tonn per annum).

Training: Paper technology is taught at (1) *Birla Institute of Techno ogy and Science*, Pilani, Rajasthan (Degree); (2) *Forest Researc Institute*, Dehra Dun, Uttar Pradesh (Diploma): (3) *Institute Paper Technology*, Saharanpu., Uttar Pradesh (Diploma an Certificate).

Research: *Forest Research Institute*, Dehra Dun, Uttar Pradesh, wa the only well-equipped research body uptill now. Recently *Parkh Research Institute* at 1183, Shivajinagar, Fergusson College Rd. Pune 411005 was started to study the various problems of pape industry and to design sophisticated machines for paper manufac ture. However, many large mills conduct research for their ow requirements.

Control: Under the paper control order promulgated on June 30 1979, the Government announced a package of measures to ensur the availability of cultural varieties of papers at fair prices.

In early 1980, the Government conceded a big increase of 25 pe cent in the price of white printing paper from Rs. 3,000 to Rs. 3,750 tonne and that of cream wave paper from Rs. 3,785 to Rs. 4,781 tonne. The current price of white printing paper is Rs. 5,400 pe tonne.

Some Large Units: *

Andhra Pradesh: Sirpur Paper Mills Ltd. (Sirpur-Kaghaznagar) 40,000; Andhra Pradesh Pulp & Paper Mills Ltd. (Rajamundry 60,000; *Bihar:* Rohtas Industries Ltd. (Dalmianagar) 60,000 *Haryana:* Ballarpur Inds. (Yamunanagar), 46,000; *Karnataka:* Wes Coast Paper Mills Ltd., Shreenivas House, Waudby Road, Bomba 400001 (Dandeli), 45,000; *Madhya Pradesh:* Orient Paper Mill Ltd., 15, India Exchange Place, Calcutta 700001 (Amlai, Sahdol) 75,000; *Maharashtra:* Ballarpur Inds. (Ballarpur), 69,000; *Orissa:* Orient Paper Mills Ltd., Brajrajnagar 768246 (Sambalpur Dist.), 161,000; *Tamil Nadu:* Seshasayee Paper & Board Ltd., P.O. Cauvery, Salem Dist. (Pallipalayam, Erode), 35,000; *Uttar Pradesh:* Star Paper Mills Ltd. (Saharanpur), 46,200; *West Bengal:* Bengal Paper Mills Ltd., 14, N. Subhas Road, Calcutta 700001 (Raniganj), 65,000; Titaghur Paper Mills Co. Ltd., Chartered Bank Bldgs., Calcutta 700001, (1. Titaghur, 2. Kakinada), 83,000.

(As additional capacity of paper and paperboard has been proposed to be commissioned, the capacity of some of the above units will undergo change.)

Pulp: 1. *Rayon Grade:* Gwalior Rayon Silk Manufg. Co. Ltd., P.B. No.37, Kozhikode, Kerala (Mavoor), 60,000 tonnes; South India Viscose Ltd, Race Course, Coimbatore-641018, Tamil Nadu, 42,000 tonnes; Harihar Polyfibres Ltd, Harihar, Karnataka (Harihar), 48,000 tonnes and Andhra Pradesh Rayon 26,500 tonnes.

2. *Paper Grade Pulp:* Central Pulp Mills, 1183, Shivaji Nagar, Fergusson College Road, Pune 411005, Maharashtra (Songadh, Gujarat). The existing capacity was recently expanded to 40,000 tonnes per year.

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*Location of the factory is indicated in brackets and figure following shows the capacity in tonnes per year.

FILMS

MOTION pictures first came into public view abroad during the closing years of the 19th. century and almost immediately reached India. However, the first milestone in Indian cinema was marked with the release of the first indigenous full-fledged silent feature film "Raja Harishchandra" by D. G. Phalke on May 3, 1913. In 1931 the first Indian 'talkie' "Alam Ara" in Hindustani made by Ardeshir Irani caught the fancy of the public. Since then the Indian motion picture industry has made vast strides. And with Satyajit Ray's "Pather Panchali", India made a hit in the international film forum in 1955.

As the years rolled by various associations were formed to highlight the development and needs of the film industry. The Indian Motion Picture Producers' Association was formed in Bombay in 1937 and the South Indian Film Chamber of Commerce in Madras in 1938. In 1951, two important bodies came into being—the Central Board of Film Censors and the Film Federation of India.

The first international film festival was held in India in 1952 at four centres, Bombay, Madras, Delhi and Calcutta.

The Government also realised the need to set up a financing body for the industry and the Film Finance Corporation of India was set up in 1960 which was later merged with IMPEC to form the National Film Development Corporation in 1980. The Film and Television Institute of India at Pune set up in 1960 gave the stamp of status to acting in films.

To commemorate this long march Indian talkies celebrated in 1981 its golden jubilee with a month-long festival of 106 memorable films.

In 1982 the total number of feature films produced in India was 763. By November-end of 1983 production had already touched the figure of 684. Thus in quantitative terms India continues to be ahead of the rest of the world. The break-up of films in the various regional languages for 1982 are: Tamil 141, Telugu 154, Malayalam 117, Kannada 51, Hindi 148, Bengali 49, Gujarati 39 and Marathi 24.

Revenue: The gross annual earning of the years 1979 and 1980 remained more or less steady at approx. Rs. 5,500 million. More than half of it (approx. Rs. 3,000 million) went straight to the State Governments in the form of entertainment tax. Besides this, Central and State Governments impose a lot of other taxes on film industry, such as excise duty on the completed prints, levy on films exceeding a certain prescribed length, customs duty on raw stock and equipment, show tax and municipal tax, etc. The export revenue for 1979 was Rs. 121,464,016 and for 1980 Rs. 150,741,199.

Colour Films: During 1976-1980 the average number of colour films produced annually was 626 (against the average of 201 black & white films) and the average annual investment on the production of colour films was estimated to be Rs. 318 crores (Rs. 3,180 million), the average investment on black & white films being about Rs. 300 million (Rs. 30 crores).

Employment: The film industry is estimated to employ a total number of over 250,000 persons about 200,000 of these being employed by cinema theatres. The total number of cinema theatres is about 11,000, including about 4,000 touring cinemas. The estimated total capital investment of the film industry is about Rs. 18,950 million. The total number of film studios is 70 while that of the laboratories and recording studios is 65.

Film Censorship: Film censorship in India is exercised under the Cinematograph Act, 1952 (as modified up to June 1, 1983) which lays down that no film shall be certified for the public if it is against the interests of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality or involves defamation or contempt of court or is likely to incite the commission of any offence. After the coming into force (on June 1, 1983) of the amended Act, there are now four categories of certificates: (i) 'U'—for unrestricted public exhibition; (ii) 'A'—for exhibition restricted to adults (18 years and over); (iii) 'UA'—for unrestricted exhibition but indicating a caution that the film contains material which parents or guardians of children below the age of 12 years should consider before allowing the children to see it; (iv) 'S'—exhibition restricted to members of any profession or any class of persons, having regard to the nature, content and theme of the film.

Finance: Finance for film industry is procured from various sources. Since the person producing a film generally has nothing to guarantee against the borrowed money, it is usually lent on the basis of the saleability of project which in turn is judged by the popularity of stars working in it. Popularity of stars is an unstable factor and a project which was highly saleable when started can turn into a non-saleable one by the time it is completed. This forces many of the films to remain incomplete. Among those completed and released, only a small percentage are really successful. Others lose money or just break even.

The risk element, therefore, is high and so are the interest rates—upto 60 per cent per annum.

The year 1983 saw the emergence of the video as a serious threat to the existence of the film industry. At the end of the year estimates about the number of VCRs (video cassette recorders) in the country ranged between 400,000 and 500,000, a large number of them being used for commercial exhibition of pirated prints (in cafes, restaurants, 'video coaches', 'video parlours'). With the unauthorised video cassettes of new films, sometimes coming out even before the release of the films, the film industry was alarmed as it brought a fall in the collections in the theatres. Several theatres were on the verge of closure. To check piracy, the Central Government declared that public exhibition of video films was also covered by the Cinematograph Act, while measures were afoot to tighten the copyright laws and make their violation less attractive through harsh penalties.

National Awards: The Government of India has instituted 64 awards for excellence in various fields of film making, known as National Awards. These include four 'Swarna Kamals', 60 'Rajat Kamals' and cash prizes totalling Rs. 546,000. The prestigious Dada Saheb Phalke Award, consisting of Rs. 40,000 besides a 'Swarna Kamal' and a shawl, is given every year to a veteran for outstanding contribution to the cause of Indian cinema.

The State Governments of Maharashtra, Gujarat, Kerala, Karnataka and Tamil-Nadu have also instituted their own annual State awards for films.

Filmfare Awards: These awards were instituted in 1953 and first presented in 1954. These awards are given annually by the 'Filmfare' magazine of Bennett, Coleman & Co. Ltd., Bombay, publishers of the 'Times of India' and Allied Publications. The total number of these awards is 44 which includes a cash prize of Rs 5,000. (For list of Award winners see Chapter on "Awards & Prizes".)

Films Division: 24, Dr. Gopalrao Deshmukh Marg, Bombay 400026. The Films Division of the Ministry of Information and Broadcasting produces and distributes newsreels, documentaries and other films for the information, education and instruction of the people. Till the end of 1981-82, the Films Division had produced 2,666 newsreels and 3,085 documentaries. The Division produces more than 200 films a year in English and 14 Indian languages.

Film and Television Institute of India, Law College Rd., Pune 411004. The Institute conducts three-year courses in Motion Picture Photography, Film Editing and Film Direction with two years' integrated training; Sound Recording and Sound Engineering with one year integrated training; and one year post-diploma course in Film Direction for those who pass the course in Editing or Motion Picture Photography.

Television Training is imparted in (1) programme production, (2) studio technical operations, (3) TV films and (4) TV graphics and design. The TV training is in the nature of inservice training. *Director:* N. V. K. Murthy.

National Film Archives of India, Law College Rd., Pune 411004. The Archives preserve the heritage of National and International cinema for study, research and reference. Its collection in December 1982 consisted of 8,091 films (Indian—5,462 and Foreign—2,629). Books—11,269. Periodicals—214, Disc records—1,483, Stills 24,148, Wall posters—3,984, Song Booklets—3,005, Scripts—11,600, Pamphlets—4,399, Press Clippings—4,163, Microfilms—936.

Notable among its acquisitions are several silent films and talkies made in the early days of the Indian Film Industry as well as the recent award-winning Indian and foreign films.

The Archives hold regular screening of Classic Films and conducts short-term courses on Film Appreciation at Pune and other centres for promotion of healthy film culture. The Archives collaborate with Doordarshan for the production of programmes on Film Appreciation for telecast in the national network.

The Archives also make available film classics and related literature to film students and research workers, some of whom come from abroad and film societies for study.

It maintains a Distribution Library of 174 Indian and foreign films which are being loaned to film societies and film study groups throughout the country for non-commercial study screenings.

The Archives have two regional officers at Bangalore and Calcutta.

National Film Development Corporation Ltd. (N.F.D.C.), 13-16, Regent Chambers, Nariman Point, Bombay 400021. On April 11, 1980, the Corpn. took over the activities of the erstwhile Indian Motion Pictures Export Corporation Ltd. (I.M.P.E.C.), Bombay and the Film Finance Corporation Ltd. (F.F.C.), Bombay. The Directorate of Film Festivals was transferred to the NFDC with effect from July 1, 1981.

Regional Offices: No. 3, Bhavani Mansion, Fourth Street, Nungambakkam High Road, Madras-600 034; Shanti Niketan, 3rd floor, 8, Camac Street, P.B. No. 16043, Calcutta-700 017; Plaza Theatre Building, Connaught Circus, New Delhi-110 003. *Overseas Office:* NFDC Ltd., 8, South Audley Street, London W1Y 5DQ. *Other Offices; Import and Distribution Wing:* 13-16, Regent Chambers, 208, Nariman Point, Bombay-400 021; White House, 91, Walkeshwar Road, Bombay-400 006. *Raw-Stock and Export Wing:* D-5, Shivsagar Estate, Dr. Annie Besant Road, Worli, Bombay-400 018. *Financing, Administration & Accounts Wing* 1-8, Dalamal Towers, Nariman Point, Bombay-400 021.

Special Projects NFDC Film Centre (16 mm Unit), RIC Industrial Estate, Behala, Calcutta-700 060; NFDC Video Centre, Bhavani Mansion No. 3, 4th Street, Nungambakkam High Road, Madras-600 034; NFDC Sub-Titling Laboratory, Shed No. W-187 (F), MIDC, Trans-Thane Creek Industrial Area, Pawane Village, Thane (Dist.).

Activities: Financing and production of films, Joint Ventures and Co-Production, Financing for Theatre Construction, Import and Distribution of films, Distribution of Indian films, Exhibition of films through its theatres, Export of films and materials, Providing facilities for 16mm film production, Sub-Titling of films in Indian and Foreign languages and transferring of films into Video Cassettes *Regulatory Activities:* (a) Canalisation of export of films and Video Rights, (b) Canalisation of import of Raw-Stock, (c) Canalisation of import of feature films. *Other activities:* Organising of International Film Festivals and Film Weeks in India and to participate in foreign film festivals and organise film weeks abroad under cultural exchange programme. Organising National Film Festivals and Awards.

Chairman: Shri D. V. S. Raju; *Managing Director:* Smt. Malati Tambay Vaidya; *Secretary:* Shri P. Balakrishnan.

Exports: During 1982-83, the export of Indian feature films and video rights canalised through NFDC was Rs. 125.4 million. The direct export business done by NFDC during the period was of the order of Rs. 10 million.

Indian films are now exported to over 80 countries. However, the traditional markets for Indian films are the Gulf Countries, Middle East, Far East, Sri Lanka, the African Countries, the U.K., the Fiji Islands, etc.

Imports: The National Film Development Corporation is a major importer of foreign films into the country. The only other agency importing films are the Motion Picture Export Association of America (MPEAA) group of companies and Sovexport Films. The imports by these two agencies are canalised through NFDC. The present Agreement with MPEAA expires in September, 1983 and no further renewal will be made by the Government.

Children's Film Society, India has its Head Office at Hingorani House, 78, Dr. Annie Besant Road, Bombay 400018 and has Zonal Offices in Delhi, Madras and Calcutta.

The Society, which had been set up in 1955 with aid and assistance of the Government of India, produces, acquires, distributes and exhibits films designed for children and neo-youth, on its network all over India. It is entrusted with an important task of providing clean and healtny entertainment to our young people through the medium of films. This organisation is responsible for the development and spread of the Neo-Youth Film Movement in the country.

As on June 1, 1983 the Society has produced/acquired a total of 259 films, 94 feature films and 165 short, puppet, cartoon and experimental films. 48 feature films have been produced by CFSI and five have been purchased from Indian producers. It has acquired 41 films from foreign countries.

The Society has drawn up a viable programme of producing more films, purchasing more films from abroad and dubbing films in the regional languages for the benefit of millions of our young people.

Apart from screening of the films in the theatres, in selected cities, the Society arranges sponsored shows at Madras, Calcutta, Bombay and Delhi and week-long festivals in different parts of the country. It supplies films from its stock to Child Welfare Centres, Community Centres, Cultural Societies, Schools and Film Clubs, apart from use of mobile unit to reach rural children. A new scheme has been launched by CFSI to show films to children in the rural areas through a mobile film unit. The programme in its final shape, envisages provision of mobile van in every district in India in course of the time to cover every child living in urban as well as rural India.

CFSI has so far held two International Competitive Neo-Youth Film Festivals, one at Bombay and other at Madras. It held the third International Film Fete at Calcutta in November 1983. The festival had been accorded 'A' category certification by International Centre of Films for Children and Young People (ICFCYP), Paris. It was counted among the top-ranking film festivals in the world.

Chairman : Dr. V. Shantaram.

Central Board of Film Censors, 91, Walkeshwar Road, Bombay 400006. A statutory body set up under the Cinematograph Act, 1952. During the year 1982, the Board granted 1,710 'U' and 91 'A' certificates to foreign films and 1,970 'U' and 265 'A' certificates to Indian films.

Chairman: Suresh Mathur

Hindustan Photo Films Manufacturing Co., Ltd. (details in the chapter on the Government of India Undertakings).

FILM ASSOCIATIONS

Indian Motion Picture Producers' Association, Sandhurst Bldg., Sardar Vallabhbhai Patel Rd., Bombay 400004: All problems connected with film production and disputes arising therefrom are taken care of by IMPPA. The IMPPA also acts as the central agency for registration of film titles, procurement of raw stock, make-up materials, magnetic films and other studio requirements.

President: Shreeram Bohra; *Sr. Vice-President:* Gulshan Rai; *Vice-President:* Brij Sadanah; *Hon. Treasurer:* T. C. Dewan, *Secretary:* G. D. Deshpande.

Film Producers' Guild of India Ltd., Shantshree, S.S. Rao Rd., Bombay 400012: Established in 1954, the Guild has a membership of over 100 active, regular producers. The organisation looks after all their problems as also difficulties arising out of film production. It makes representations to the Union and State Governments seeking redress of their grievances as also against levies, impositions and taxes. It also ensures regular supplies of materials required in the business of film production.

President: Ramanand Sagar; *Vice-Presidents:* B. R. Chopra, Amit Khanna; *Treasurers:* Atma Ram, Shanti Sagar; *Secretary:* R. V. Ishwar.

Cinematograph Exhibitors' Association of India, Flat No. 22/23B, Vellard View, Tardeo Rd., Bombay 400 034: Established on November 26, 1946, the CEAI is registered under the Indian Companies Act. Its main objectives are to help and develop the exhibition trade in films and to co-operate with distributors and their organisations to ensure smooth exhibition of films. The organisation takes measures conducive to the interests and welfare of members in co-ordination with various interests in the film industry. The CEAI has over 1,400 members on its rolls.

President: Pranlal K. Doshi.

Indian Motion Picture Distributors' Association, Vijay Chambers, Opp. Dreamland Cinema, Tribhuvan Rd., Bombay 400004: The IMPDA ensures co-ordination among exhibitors, producers and distributors of motion pictures and takes care of the interests of distributors, in particular. It has a membership of 750.

President: Gulshan Rai; *Vice-President:* N.N. Sippy; *Treasurer:* Sunder F. Rai; *Hon. Secretaries:* G.L. NAik, Devendra T. Shah.

Film Fedn. of India, 91, Walkeshwar Rd., Bombay 400 006.

CEMENT

CEMENT, though it may not have been known by that name, is an ancient building material. Evidence of its use is believed to have been found in the Indus civilisation of Mohenjodaro. The Greeks are also known to have made extensive use of it, but it is to the Romans that the credit must go for having evolved concrete from cement.

Portland cement was first manufactured in England in the early part of the nineteenth century. It resembled a stone quarried near Portland, England, from which it derives its name of Portland cement.

Although cement was first manufactured in India near Madras in 1904, it was not until 1914 that the foundation of a stable Indian cement industry were really laid. In October 1914, the first bag of cement was packed at Porbandar by the Indian Cement Company Ltd. (Agents: Tata Sons & Co.). This company then had a capacity of only 1,000 tonnes. At the end of 1981, there were 62 units in the country and their aggregate capacity was 26.36 million tonnes.

LOCATION OF THE INDUSTRY

The State-wise break up of the units is as follows: Andhra Pradesh 10, Assam 1, Bihar 6, Gujarat 8, Haryana 2, Himachal Pradesh 1, Jammu and Kashmir 1, Karnataka 6, Kerala 1, Madhya Pradesh 10, Maharashtra 3; Meghalaya 1, Orissa 2, Rajasthan 7, Tamil Nadu 8, Uttar Pradesh 3 and West Bengal 1.

Public Sector: Out of 62 units, 14 are in the public sector in 1981. The break-up of these units is as follows:

Andhra Pradesh: Cement Corporation of India (Yerraguntla); *Assam:* Cement Corporation of India (Bokajan); *Haryana:* Cement Corporation of India (Charkhi Dadri); *Himachal Pradesh:* Cement Corporation of India (Rajban); *Jammu & Kashmir:* J & K Cement; *Karnataka:* Visvesvaraya Iron & Steel Ltd. and The Cement Corporation of India (Kurkunta); *Madhya Pradesh:* The Cement Corporation of India (Mandhar, Akaltara and Nayagaon); *Meghalaya:* Mawmluh-Cherra Cements Ltd.; *Orissa:* The Industrial Development Corpn. of Orissa Ltd. (Hira Cement Works); *Tamil Nadu:* Tamil Nadu Cements Corporation Ltd. (Alangulam and Ariyalur); *Uttar Pradesh:* The Uttar Pradesh State Cement Corporation Ltd. (Churk, Chunar and Dalla).

Expansion: Production capacity is expected to increase by 6 million tonnes to 38 million tonnes by the end of 1983-84, and the production is likely to reach 28 million tonnes as compared to 23 million tonnes for the preceding year.

Number of Persons Employed: About 100,000 including workers in quarries.

Contribution to Gross National Product: In 1982 it was Rs. 8,718 million (Approx.).

Ranking in the World Market (1980): India is the 8th largest cement producer in the world. The first seven countries are the USSR, Japan, USA, Italy, West Germany, France and Spain.

PRODUCTION AND CONSUMPTION

In 1982 production was 23 million tonnes as against 20.01 million tonnes in 1981.

Cement factories are largely concentrated in the southern and western regions of the country because high grade limestone is more abundantly available there. This has led to regional imbalances.

Capacity and Production of Cement

(Million tonnes)

		South	West	East	North	Total
1979	a.	8.45	6.33	4.19	4.44	23.41
	b.	6.78	5.79	2.73	2.93	18.23
	c.	5.54	5.11	3.38	5.54	19.57
1980	a.	8.90	8.00	4.18	4.44	25.52
	b.	6.82	5.70	2.64	2.63	17.79
	c.	5.80	5.23	3.48	4.92	19.43
1981	a.	6.92	6.04	2.96	6.08	22.00
	b.	7.75	6.40	3.01	3.60	20.76
	c.	6.18	5.69	3.93	6.28	22.08

a—Capacity; b—Production; c—Consumption.

Production of cement in India and other countries in 1979 and 1980 respectively (in million tonnes): USSR: 123.01; 124.80; Japan: 87.80; 87.96; USA: 70.51; 65.12; Italy: 39.72; 41.85; Germany: 35.47; 34.24; France: 28.84; 29.10; Spain: 28.05; 28.00 and India 18.23; 17.79.

Per Capita Consumption in 1979 and 1980 respectively (in Kgs.): Japan: 631, 628; Italy: 582, 612; Federal Republic of Germany: 482, 464; France: 447, 452; USSR: 388, 392; USA: 266, 288; India: 28, 32.

Exports: In view of the shortages of cement in the country, Government has virtually banned export of this commodity from 1978 in order to augment supplies for the domestic market.

Imports: To meet the growing internal demand, the Government imported 1.87 million tonnes of cement in 1982.

GENERAL

The Cement Industry has completed 15 months since the introduction of Government's new policy of partial decontrol. During this period, the capacity of the industry registered a record increase of 3.8 million tonnes, bringing the total capacity of the industry to 32 million tonnes by the end of March 1983, and cement production went up, despite severe power cuts/interruptions in major cement producing States by about 2.80 million tonnes to 23 million tonnes with 77.1 per cent capacity utilisation. In order to overcome the power constraints the industry is going ahead in a big way to instal captive power generators, both diesel and thermal, of an aggregate capacity of 265 MW at a cost of Rs. 1,750 million.

Mini Plants: Cement Manufacturers' Association offers services to mini cement plants and they are eligible to become members of the Association. The Cement Research Institute and the Regional Research Laboratory, Jorhat are offering vertical shaft technology. Indigenous technology for putting up mini cement plants based on Rotary Kiln is also available.

Establishment of mini cement plants has certain advantages such as exploitation of scattered and small size deposits of cement grade limestone, dispersal of manufacturing capacity over the country thereby helping to rectify regional imbalances, reducing burden on railway transportation and creation of new employment potential especially in rural, hilly and other inaccessible areas.

Additional Capacity and Production: It is estimated that additional capacity of about 7.5 million tonnes will be commissioned during 1982-83, comprising of both substantial expansions and installation of new units. The estimate of production from this additional capacity on a conservative basis could be around 2.5 to 3 million tonnes and the total availability of indigenous cement would be around 25 million tonnes during 1982-83.

Demand: The domestic demand for cement for 1981-82 is estimated at about 30 million tonnes and the demand is likely to increase, on a conservative estimate, at 8 per cent annually.

Training and Research: Almost all cement factories have well equipped laboratories. The major research for development of the industry is being done by the *Cement Research Institute of India.* The Institute has a well-equipped laboratory with training facilities for scientists, at Ballabgarh 121004 (Haryana). The *CRI* have undertaken intensive research in specialised fields connected with cement.

Ten Largest Units: The Associated Cement Cos. Ltd., 121, Maharshi Karve Road, Bombay-400020. The Birla Jute Manufacturing Co. Ltd., Birla Building, 9/1, R.N. Mukherji Road, Calcutta-700001. The India Cements Ltd., 'Dhun Building', 175/1, Mount Road, Madras-600001. The Cement Corporation of India Ltd. (Govt. of India Undertaking), Shakuntala Apartment, 59, Nehru Place, New Delhi-110019. Tamil Nadu Cements Corporation Ltd. (A subsidiary of TIDCO), LLA Building, 735, Anna Salai, Madras-600002. The U.P. State Cement Corpn. Ltd. (A U.P. Govt. Undertaking), Churk, 231206 Mirzapur Dist. Saurashtra Cement & Chemical Industries Ltd., Ranavav-360560 (Gujarat). The Jaipur Udyog Ltd., P.O. Ram Krishna Lok, Sawaimadhopur-322001, Rajasthan, Shree Digvijay Cement Co. Ltd., Shree Niwas House, Hazarimal Somani Marg, Bombay-400001. J.K. Cement Works, Kamla Tower, Kanpur 208001 (U.P.).

Publication: "CEMENT" (Quarterly Journal), C/o Cement Manufacturers' Association, 26, Rajendra Place, Pragati Tower (13th Floor), Pusa Road, New Delhi-110008.

MINES AND MINERALS

THE geology of a country is the bedrock of its economy determining its economic status in the international community. India has substantial potential reserves of important minerals, though distributed unevenly over the country, which can be utilised as raw material for its industrial progress or in trade with other countries.

Metallurgy had reached an advanced stage in ancient India, as is borne out by the rustless Ashoka pillar in Delhi. There is also evidence of a flourishing industry in metals like gold, silver, copper, zinc, lead, iron, etc, but these were mostly extracted from easily accessible sources.

Before independence mineral development had not advanced, though the Geological Survey of India and a Minerals Development Division was set up in 1945. After independence, with the systematic and detailed geological mappings mineral exploration was intensified. Magnetic and seismic surveys were deployed to help further prospecting. Remote Sensing Technology had come to be evolved abroad and India also used satellites like 'Gemini' and ERTS (Earth Resources Technology Satellite) to locate deposits. Techniques in the extraction of minerals have also been rapidly improving.

Mineral prospecting and development received great impetus in the Second Five-Year Plan when the Industrial Policy Resolution was mooted in 1956 according top priority to industrialisation. The Minerals and Metals Trading Corporation was set up in 1956 which took over the minerals and metals export from State Trading Corporation.

The Regional Research Laboratory, Bhubaneshwar, which is a National Laboratory under CSIR (Council of Scientific and Industrial Research) has also contributed in the field of mineral beneficiation, metal extraction, mineral and metallurgical waste and byproducts.

The total value* of mineral production during 1982 was Rs. 48,750 million compared to Rs. 34,320 million in the previous year. Mineral fuels (coal, lignite, petroleum and natural gas) constituted the leading group with Rs. 44,220 million or 90.71 per cent (solid fuels 41.43 per cent and liquid fuels 47.19 per cent), metallic minerals Rs. 2,780.6 million or 5.70 per cent and non-metallic minerals Rs. 1,747.8 million or 3.58 per cent of the total value of mineral production during 1982. Besides, minor minerals valued at Rs. 1,786.8 thousand were also produced during the year.

In terms of value of output coal including lignite was foremost with 42.74 per cent followed by petroleum and natural gas 47.96 per cent, iron ore 2.87 per cent, limestone 1.89 per cent, copper ore 0.68 per cent, manganese ore 0.61 per cent, gold 0.50 per cent, phosphorite 0.47 per cent, zinc concentrate 0.31 per cent, chromite 0.30 per cent while all the other minerals together accounted for the remaining 1.67 per cent.

The index of mineral production (quantum index) with base 1970-100 was 188 during 1982 showing an increase of 16 points over the previous year. Among fuels, the index of coal mining including lignite increased by 7 points while that of petroleum and natural gas increased sharply by 70 points over the previous year. The indices of metal ore mining decreased by 3 points while that of non-metallic minerals mining increased by 2 points during 1982 as compared to the previous year.

State-wise analysis: State-wise analysis indicated that Bihar occupied the leading position accounting for about 20 per cent of the total value of mineral production in 1982. It was followed by Assam 13 per cent, Madhya Pradesh 10 per cent, Gujarat 8 per cent, West Bengal 7 per cent and Andhra Pradesh 4 per cent. The rest was accounted by all the other states and the Bombay High.

The value of mineral production (Rs. million) in each State for 1982 was: Bihar 9,680, Assam 6,189, Madhya Pradesh 5,004, Gujarat 4,125, West Bengal 3,385, Andhra Pradesh 2,008, Orissa 1,255, Maharashtra 1,201, Tamil Nadu 1,060, Rajasthan 616, Karnataka 476, Uttar Pradesh 388, Goa 302 and Bombay High 1,358.

MINERAL FUELS

Coal and Lignite: The most important coalfields are Raniganj in West Bengal and Jharia and Bokaro in Bihar. The best coking coal comes from Giridih, Jharia and Raniganj. Other States in which coal is found are Madhya Pradesh, Orissa, Andhra Pradesh, Maharashtra, Assam, Uttar Pradesh, Jammu & Kashmir, Meghalaya, Nagaland and Arunachal Pradesh.

The total all-India proved, indicated and inferred reserves of all types of coal, including lignite, stand at 86,428 million tonnes with seams of 1.2 metres and above in thickness and generally up to a depth of 600 metres from the surface. Out of this the reserves of coking coal is placed at 23,391 million tonnes.

Significant reserves of lignite occur in Gujarat, Jammu & Kashmir, Rajasthan and Tamil Nadu. The total estimated reserves are about 2,100 million tonnes of which Neyveli field in Tamil Nadu alone contains 1,919 million tonnes.

India is seventh largest producer of coal in the world with nearly 123 million tonnes production during 1981. The output of coal in million tonnes: 1979 (103.3); 1980 (109.2); and 1981 (123.0). The value of coal production during 1981 was Rs. 30,048 million.

The output of lignite in million tonnes 1979 (3.2), 1980 (4.5) and 1981 (5.9). The value of lignite production during 1981 was Rs. 568.6 million.

The "Integrated Neyveli Project" at Neyveli, S. Arcot district of Tamil Nadu is planned to increase the mine output to 6.6 million tonnes per annum. Output of lignite was 4.5 million tonnes during 1980 which was higher by 23 per cent compared to previous year. Nearly 94 per cent of output was reported from Tamil Nadu and the rest was from Gujarat.

Lignite also occurs at Palana and Khetri in Bikaner district of Rajasthan; Nichahom in Jammu & Kashmir and in Kutch and Bharuch districts in Gujarat.

METALLIC MINERALS (FERROUS GROUP)

Chromite is an important strategic mineral of which India has supplies.

The chief deposits of chromite ore are in Cuttack, Dhenkanal and Keonjhar districts of Orissa; Bhandara and Ratnagiri districts of Maharashtra; Singhbhum district of Bihar; Mysore and Hassan districts of Karnataka; Krishna district of Andhra Pradesh; Salem district of Tamil Nadu and Tangnoupal district of Manipur.

Production and exports respectively in '000 tonnes of chromite: 1979 (309, 114); 1980 (321, 230); 1981 (336, 130). Production of ferro-chrome during 1981 was 31,333 tonnes.

Iron ore: The production of iron ore in India during 1981 totalled 41.3 million tonnes as against 41.9 million tonnes in the previous year.

India is one among the few countries endowed with large reserves of good quality iron ores which can meet the growing demands of the indigenous iron and steel industry and also sustain considerable export trade.

The production from Goa during 1981 was 12.5 million tonnes as against 14 million tonnes during 1980. During 1981, Madhya Pradesh produced 10.2 million tonnes; Bihar 6.8 million tonnes and Karnataka 3.9 million tonnes.

Production and value ('000 tonnes and Rs. '000) respectively of iron ore: 1979 (39,858; 1,065,871); 1980 (41,936; 1,245,307); 1981 (41,354; 1,287,839).

Manganese ore: Extensive deposits of manganese ore occur in Madhya Pradesh, Maharashtra, Orissa, Andhra Pradesh, Karnataka, Bihar, Rajasthan and Goa.

The total recoverable reserves of manganese ore as on January 1, 1981 in the country are placed at 116.6 million tonnes. It is estimated that the deposits in the main belt of Nagpur and Bhandara in Maharashtra and Balaghat in Madhya Pradesh alone contain reserves of the order of 40.6 million tonnes.

Yearly output and exports respectively of manganese ore in tonnes: 1979 (1,770,568; 627,721): 1980 (1,691,918; 626,733); 1981 (1,525,559; 608,740).

A new unit with a capacity of 50,000 tonnes of ferro-manganese per annum of Maharashtra Electrosmelt, Chandrapur commenced production in March 1977. With this, there are at present 9 major ferro-manganese plants in the country with total installed capacity of 338,200 tonnes per annum. Of these 4 units are located in Maharashtra, two each in Orissa and Karnataka and one in Andhra Pradesh.

Uniferro International Limited, at Tumsar, Maharashtra with a capacity of 45,000 tonnes per annum went on stream in 1981. Paramount Sinters Pvt. Ltd. (Maharashtra Electrosmelt) has a sintering plant with a capacity of 15,000 tonnes per annum of manganese sinters using 5 mm rejected manganese fines. FACOR has proposals to set up manganese sintering plants in collaboration with RRL, Bhubaneswar.

During 1981 the production of ferro-manganese was 208,836 tonnes as compared to 158,303 tonnes in 1980.

NON-FERROUS GROUP

Bauxite: India is self sufficient in respect of bauxite which is the chief raw material for aluminium metal. A sizeable quantity also finds an outlet in export market after meeting the indigenous requirements. The all India reserves of bauxite of all grades are placed at 2,489 million tonnes as on 1.1.1980. This enhanced reserve of bauxite is due to the recent discovery of bauxite deposits on the east coast of Andhra Pradesh and Orissa.

The important deposits of bauxite occur in Palamau and Ranchi districts of Bihar; Mopa and Pernem area in Goa; Surguja, Shahdol, Mandla and Bilaspur districts of Madhya Pradesh; Kolaba, Kolhapur and Ratnagiri districts of Maharashtra; Madurai, Nilgiri and Salem districts of Tamil Nadu; Jamnagar and Kutch districts of Gujarat; Belgaum and South Kanara districts of Karnataka; Kalahandi, Koraput and Sambalpur districts of Orissa and Banda district of Uttar Pradesh. Recently, different exploratory agencies have established a total bauxite reserve of 518.56 million tonnes in Orissa, Madhya Pradesh, Andhra Pradesh, Uttar Pradesh, Maharashtra and Karnataka.

Yearly production and export respectively of bauxite in tonnes are: 1979 (1,951,933; 18,536); 1980 (1,784,699; 45,526); 1981 (1,922,593; 84,241).

Aluminium: There are 7 aluminium smelters owned by five companies of which one is in the public sector at Korba in Madhya Pradesh with an installed capacity of 100,000 tonnes; six in private sector located in Hirakund (Orissa), Alwaye (Kerala), Belgaum (Karnataka), Renukoot (U.P.), Mettur (Tamil Nadu) and Jaykaynagar (West Bengal). The National Aluminium Company Ltd.' was formed on 7.1.1981 to implement Alumina/Aluminium project in Orissa. The total capacity of all the aluminium plants in the country is placed at 300,000 tonnes per annum.

Copper: In India at present, there are two copper smelters both in public sector located at Ghatshila in Bihar and Khetri in Rajasthan. The total installed capacity of copper metal is 47,500 tonnes per annum against which the production of electrolytic copper metal during 1981 was 14,887 tonnes.

Production of copper ore during 1981 was 2,106,790 tonnes valued at Rs. 347,270,000.

Malanjkhand Copper Project: The project is being implemented by Hindustan Copper Ltd. at Malanjkhand in Balaghat district of Madhya Pradesh. This will be the country's first large size open-cast mine in hard rock and has been planned for ultimate production of 2 million tonnes of ore, equivalent to about 23,000 tonnes of copper metal per annum. The project will comprise the mine and a matching concentrator plant. The concentrates to be produced at Malanjkhand will be smelted at the Khetri smelter. Therefore the smelting and refining capacity of Khetri smelter are being expanded from 31,000 tonnes to 45,000 tonnes for treatment of Malanjkhand concentrates.

Lead and Zinc: Hindustan Zinc Ltd. is producing lead and zinc ore from its Zawar group of mines in Rajasthan and Bandalamottu lead project in Andhra Pradesh. Besides this Baroi and Rampura-Agucha mines are under exploration.

The production of lead concentrates during 1981 was 20,017 tonnes. The concentrates from Rajasthan are sent to Tundoo Lead Smelter in Bihar while those from Andhra Pradesh are sent to Visakhapatnam smelter, Andhra Pradesh.

With the commissioning of Vizag smelter during 1977, there are at present three zinc smelters, the other two being located at Debari in Rajasthan and Alwaye in Kerala. The capacity of Vizag smelter is 30,000 tonnes of the zinc metal and that of Debari smelter has been expanded from 18,000 to 45,000 tonnes during 1977 while that of smelter at Alwaye is 20,000 tonnes. Thus making total capacity of 95,000 tonnes per annum. HZL is contemplating to set up a new zinc-lead smelter complex based on the newly discovered lead and zinc ore deposits of Rampura-Agucha and other mines with a capacity of 100,000 tonnes of zinc and 35,000 tonnes of lead per annum.

Production and value of lead concentrates during 1981 in tonnes and value in Rs. '000 respectively was 20,017 and 57,461 and that of the zinc concentrates 52,876 and 127,420.

Gold: The production of gold during 1981 was 2,495 kgs. valued at Rs. 266 million.

NON-METALLIC MINERALS

Apatite and Rock Phosphate: These constitute the principal raw material for production of commercial phosphatic fertilizers. Requirements of rock phosphate were entirely met by imports till 1968. In view of their short supply intensive exploratory programme for the search of phosphate minerals was launched upon by the Government and as a result several workable deposits of phosphorites were discovered in Rajasthan, Uttar Pradesh and Madhya Pradesh. Production of phosphorite has already commenced at Jhamarkotra and Maton in Udaipur district of Rajasthan, Maldeota in Dehra Dun district of Uttar Pradesh and Jhabua district of Madhya Pradesh.

The production of phosphorite during 1981 was 549,040 tonnes valued at Rs. 234,307,000 as against 522,922 tonnes valued at Rs. 197,936,000 in 1980.

Asbestos: Naturally occurring fibrous minerals are called asbestos. The commercial varieties fall into two groups viz., the serpentine group found extensively in the serpentine rocks and is commonly called chrysolite variety and the other amphibole group comprised of treemolite, actionolite, anthophylite, crocidolite and amosite varieties. The chrysolite variety is the most important one from the industrial point of view and is mainly limited to Pulivendla taluk of Cuddapah district of Andhra Pradesh and Singhbhum district of Bihar.

Thirteen units manufacturing asbestos-cement products (one in joint sector and the rest in private sector) were in operation in 1980 with a total installed capacity of 681,800 tonnes against which the production was 635,100 tonnes in 1980.

The bulk of the asbestos requirements of the country is met by imports. The trend in the production and imports of asbestos for the last three years is shown in the table below:

(Qty. in tonnes)

Year	Output	Imports
1978-79	32,334	60,573
1979-80	33,710	58,689
1980-81	24,515	55,049

Gypsum: Gypsum is mainly used in the manufacture of Portland cement, ammonium sulphate fertilizer, plaster of Paris and as a soil conditioner of alkaline soils where pulverised low grade gypsum is directly applied. However, due to implementation of 'Rationalisation scheme' of the Sindri Unit of F.C.I. the use of gypsum is gradually being eliminated in the manufacture of ammonium sulphate fertiliser and will be totally eliminated when the scheme is fully implemented.

India has abundant reserves of gypsum in the State of Rajasthan. Other States where gypsum occurs are Andhra Pradesh, Gujarat, Himachal Pradesh, Jammu and Kashmir, Karnataka, Madhya Pradesh, Tamil Nadu and Uttar Pradesh.

The total all India reserves of gypsum in tonnes as on January 1, 1980 were placed at 1,205 million tonnes, of which Rajasthan's share was 89 per cent. Production of gypsum in tonnes: 1979: 877,490; 1980: 866,228; 1981: 947,663.

Kyanite and Sillimanite: Are the important refractory minerals having the same chemical composition ($Al_2 O_3 SiO_2$) but differ in physical and crystallographic properties. Singhbhum Kyanite of Bihar and Khasi sillimanite of Meghalaya are well known the world over and were at one time the chief source of massive kyanite and sillimanite. The known productive deposits of kyanite are Lapsa Buru deposits in Singhbhum district, Bihar and the Dahegaon-Pimpalgaon deposits in Bhandara district of Maharashtra.

The Indian sillimanite can be used as a refractory without calcination since it shows very little expansion. The occurrences of sillimanite are reported from several States, however, the production comes from only Meghalaya, Maharashtra, Kerala, Tamil Nadu and Madhya Pradesh. Major production of sillimanite is from the famous Sonapahar mines of Khasi Hills district of Meghalaya. Sillimanite sand is recovered as a by-product from ilmenite processing in Kerala and Tamil Nadu.

Prior to 1979 India occupied an important position both as a producer and as an exporter of Kyanite and sillimanite. However the export of Kyanite and massive sillimanite has been banned since 1979. The trend of their output and exports for the three years are shown in the following table:

(In tonnes)

Year	Kyanite		Sillimanite	
	Output	Export	Output	Export
1978-79	40,709	1,096	16,108	150
1979-80	49,141	1,463	14,488	100
1980-81	38,868	1,132	12,335	160

Limestone: Is an important industrial mineral used in the manufacture of cement, iron and steel, chemicals and a host of other major industries such as paper, sugar, fertilizer, glass, etc.

Limestone occurs in almost all the States of India. From the reserves of various limestone deposits, it is apparent that sufficient resources of flux and cement grade limestone are available.

The production of limestone in thousand tonnes and value in thousand rupees respectively: 1979 (31,481; 760,755); 1980 (29,183, 759,928); 1981 (31,847; 832,416).

Magnesite: Is the chief mineral used in the manufacture of basic refractory bricks for steel making. It is mined in the States of Tamil Nadu, Uttar Pradesh, Karnataka and Rajasthan.

In India major deposits are in Karnataka, Tamil Nadu and Uttar Pradesh. Deposits in Rajasthan and Bihar are also of some importance. The Chalk Hills deposits of Salem district, Tamil Nadu are the largest in India and have been under active production for a number of years. Magnesite deposits in Almora and Pithorgarh districts of Uttar Pradesh are now under exploitation.

Production and export (in tonnes) respectively: 1979 (396,211; 11,753); 1980 (380,113; 6,571); 1981 (463,118; 4,962).

Mica: Mica is treated as a strategic mineral and India accounts for a big slice of the world trade in it.

The principal mica deposits are concentrated in Bihar, Rajasthan and Andhra Pradesh. During 1981 Bihar accounted for 57 per cent of all India output followed by Andhra Pradesh 28 per cent and Rajasthan 12 per cent. Small output was reported from Tamil Nadu.

The production of crude mica (excluding waste mica) and export of all grades of mica respectively in tonnes are: 1979 (9,073; 22,556); 1980 (7,394; 28,700); 1981 (8,357; 33,522),

Sulphur: India is practically devoid of deposits of elemental sulphur. Three alternative sources of recovering sulphur and sulphuric acid for reducing the dependence on imports have been adopted. These are: *(i)* recovery of elemental sulphur from petroleum refinery, *(ii)* production of by-product sulphuric acid from zinc and copper smelters and *(iii)* production of sulphuric acid from pyrites. The Madras Refinery Limited is the only plant from where elemental sulphur is recovered during the refining of crude petroleum. The production of by-product of sulphuric acid was reported from 5 smelters of non-ferrous metals three zinc smelters—two operated by HZL at Debari and Visakhapatnam and one operated by Cominco Binani Ltd. at Alwaye and two copper smelters operated by HZL at Khetri and Ghatsila. There is one sulphuric acid plant based on pyrites located at Sindri owned by FCI.

Production of pyrites was reported only from Amjhore in Rohtas district, Bihar by Pyrites and Phosphates and Chemicals Ltd. The production of pyrites during 1979, 1980 and 1981 was 67,172 tonnes, 82,095 tonnes and 57,598 tonnes respectively. The pyrites produced at the mine is supplied to FCI's Simon-Carve's sulphuric acid plant at Sindri. Another pyrites based sulphuric acid plant with Bulgarian aid was being set up at Sindri. With a view to fully meet the requirements of the two pyrites based sulphuric acid plants, the PPCL was progressing with a scheme of mine production from the level of 400 tonnes to 900 tonnes per day. A feasibility report for exploitation of Saladipura pyrites deposits in Sikar district of Rajasthan was submitted by Messrs. RTZ Ltd. of U.K. However, the major country's requirements of sulphur are met from imports.

Imports of sulphur in tonnes during 1978-79: 722,478; 1979-80: 930,577; 1980-81: 756,430.

Salt: The total production of common salt in the country during 1979, 1980, 1981 and 1982, was 7,037,000, 8,007,400, 8,923,200 and 7,308,400 tonnes respectively.

Iodised Salt: Out of the above quantities a quantity of 192,870 and 203,760 tonnes were iodised during the year 1981 and 1982 respectively at Sambhar Lake in Rajasthan, Kharaghoda in Gujarat and Calcutta in West Bengal for supply to the goitre endemic areas under the National Goitre Control Scheme.

Rare Minerals: Investigations carried out by the Department of Atomic Energy have revealed a number of radioactive mineral deposits in India.

The beach sands of Kerala and Tamil Nadu contain a useful radioactive mineral—monazite, which contains thoria, uranium oxide, phosphate and a large percentage of rare earth oxides. Thorium can be converted into an important atomic fuel of the future. The total reserves of rare earth oxides in the beach sands have been estimated at approximately one million tonnes.

Ilmenite is also recovered from the beach sands of Kerala State and the Mahavalakurichi area in Tamil Nadu. It is now mainly exported to Japan. The present estimated resources of ilmenite in the country are placed at 100 to 150 million tonnes. During 1976, 120,727 tonnes of ilmenite, valued at Rs. 29.94 million, were exported.

India's present overall indicated and inferred reserves of uranium are estimated at about 80,000 tonnes, and of thorium at 360,000 tonnes.

Uranium bearing ores have been discovered in the Singhbhum Thrust Belt of Bihar, and in the Himalayan regions of Himachal Pradesh and Uttar Pradesh. The uranium mine at Jaduguda in the Singhbhum district, worked by the Uranium Corporation of India Ltd., a Govt. of India undertaking, treats about 1,000 tonnes of ore per day in the uranium mill.

PRODUCTION AND VALUE OF MINERALS†

(Value in Rs. '000)

Mineral	Unit	Total Production			
		1981		1982	
		Quantity	Value	Quantity	Value
All Minerals			**34,317,693**		**48,752,009**
Fuels			30,005,314		44,223,561
Coal	'000 tonnes	123,104	17,485,737	128,225	20,201,766
Lignite	"	5,966	496,298	6,675	637,896
Natural Gas @	Mill. Cu.m.	1,997	68,780(e)	2,412	84,315(e)
Petroleum (Crude)	'000 tonnes	14,925	11,954,499	19,712	23,299,584
Metallic Minerals			**2,634,799**		**2,780,602**
Bauxite	'000 tonnes	1,923	87,754	1,854	87,886
Chromite	Tonne	336,095	146,741	339,196	149,412
Copper ore**	'000 tonnes	2,107	347,270	2,018	331,601
Diaspore	Tonne	6,099	2,238	5,802	1,752
Gold	Kg.	2,495	266,356	2,238	247,685
Iron Ore (Total)	'000 tonnes	41,354	1,287,839	40,902(a)	1,401,266
Lead Concentrates	Tonne	20,017	61,908	21,747	69,933
Manganese Ore	'000 tonnes	1,526	240,020	1,448	299,571
Silver	Kg.	17,298	38,308	14,404	32,081
Tungsten Concentrates	"	38,837	3,316	53,529	4,432
Zinc Concentrates	Tonnes	52,876	153,049	52,839	154,983

PRODUCTION AND VALUE OF MINERALS—*(Contd.)* (Value in Rs. '000)

Mineral	Unit	Total Production			
		1981		1982	
		Quantity	Value	Quantity	Value
Non-Metallic Minerals			**1,677,580**		**1,747,846**
Agate	Tonne	1,476	354	1,062	277
Apatite	"	16,862	3,573	18,319	3,835
Phosphorite	..	550,749	242,705	541,667(e)	233,168(e)
Asbestos	..	24,515	14,297	26,761	11,181
Ball Clay	..	120,154	5,517	114,782	5,268
Barytes	..	399,013	37,866	325,368	27,541
Calcite	..	26,806	2,440	19,101	1,712
Chalk	..	85,982	7,340	87,057	7,346
Clay (Others)	..	56,373	723	33,445	415
Corundum	"	1,292	895	1,355	870
Diamond	Carat	14,542	17,588	12,913	23,750
Dolomite	'000 tonnes	2,072	95,848	2,133	97,805
Emerald (Crude)	Carat	—	—	6,853	N.D.
Felspar	Tonne	60,752	2,384	44,854	1,592
Fire Clay (c)	'000 tonnes	833	18,434	769	19,184
Fluorite (Concentrates)	Tonne	18,720	28,879	18,117	27,845
Fluorite (Graded)	"	4,185	4,718	6,785	8,371
Garnet (Abrasive)	"	3,257	737	5,429	1,751
Garnet (Gem Variety)	Kg.	1,249	13	2,249	22
Graphite (r.o.m.)	Tonne	59,021	5,674	52,376	5,950
Gypsum	'000 tonnes	948	25,623	970	34,280
Jaspar	Tonne	3,356	245	1,985	128
Kaolin (Total)	'000 tonnes	509	46,587	531	48,651
Natural ‡	"	396	8,398	—	—
Kaolin Processed β	"	113	38,189	—	—
Kyanite	Tonne	38,868	14,116	33,951	13,131
Limestone	'000 tonnes	31,848	838,979	33,462	924,459
Lime Kankar	"	18	63	26	74
Lime Shell	"	123	8,938	130	9,888
Calcareous Sand	"	685	8,277	669	8,092
Magnesite	Tonne	463,118	114,184	407,071	91,228
Mica (Crude)(P)	"	8,375	30,411	8,584	33,095
Mica (Mine Work, Scrap etc.)*	..	4,310	N.A.	4,377	N.A.
Ochre	..	89,399	2,289	84,789	2,020
Pyrite	..	57,598	20,832	55,853	21,154
Pyrophyllite	"	40,238	1,536	43,568	2,137
Quartz	'000 tonnes	188	6,494	214	7,792
Quartzite	"	104	4,780	118	14,173
Silica Sand (including glass sand)	..	618	16.096	521	13,573
Moulding Sand	"	104	813	88	717
Sand (Others)	. ..	1,288	4,207	1,254	4,048
Fuchsite Quartzite	Tonne	—	—	35	19
Salt (Rock)	"	4,32[illegible]	1,082	4,121	1,088
Slate	..	9,939	1,209	4,770	667
Sillimanite	..	12,335	5,868	13,066	6,180
Staurolite	..	15	9	—	—
Steatite	..	341,316	25,356	300,338	22,771
Sulphur ***	..	4,170	6,567	5,473(e)	7.128(e)
Vermiculite	..	3,438	889	2,068	627
Wollastonite	..	15,915	2,111	20,725	2,787
Minor Minerals			**1,786,800**		**N.A.**

Source: Indian Bureau of Mines, Nagpur † Excluding the value of minor and atomic minerals:

(e) Estimated @ Relates to gas utilised. N.A Not Available (P) Provisional.

(c) Excludes the production of fire clay it any recovered incidental to coal mining.

(a) Excludes 702,000 tonnes of iron ore concentrates reported from the Kudremukh Iron Ore Co. Ltd., Karnataka.

N.D Not Determined.

* It includes mine waste and waste obtained while dressing of crude mica at mine site.

** Includes production and value of copper concentrates produced in Sikkim from 1977 onwards.

‡ Kaolin natural refers to the mineral produced and consumed as such.

β Kaolin processed refers to the Kaolin obtained after processing the run of mine material.

*** Obtained as by-product from Sourgas from Madras Refineries Ltd., Madras

IMPORT OF MINERALS†

(Value in Rs. '000)

Mineral	Unit	1979-80		1980-81	
		Quantity	Value	Quantity	Value
All Minerals			**28,053,939**		**40,168,528**
Antimony ore and concentrates	Tonne	1	9	—	—
Asbestos	”	58,689	255,793	55,049	265,497
Borax	”	4,533	8,622	12,551	31,370
Diamond (uncut)	N.A.	N.A.	3,378,561	N.A.	4,024,686
Diamond—Industrial (including bort)	Kg.	171	9,127	158	7,607
Emerald (uncut)	N.A.	N.A.	55,548	N.A.	78,402
Felspar	N.A.	5,024	4,454	5,264	6,295
Graphite (Natural)	N.A.	896	4,656	101	1,769
Lead ore and concentrates **	N.A.	84	556	44	618
Manganese ore milled for dry cell battery ‡	N.A.	8,047	17,422	12,173	27,691
Petroleum (Crude)	'000 tonnes	16,121	21,875,348	16,248	33,489,710
Rock Phosphate (including Apatite)	Tonne	1,162,690	592,545	1,182,563	777,160
Precious and semi precious stones (uncut)*	N.A.	N.A.	9,046	N.A.	31,141
Sulphur	Tonne	930,577	855,536	756,430	845,365
Tungsten ores and concentrates	”	321	29,841	594	50,097
Zinc ores and concentrates	”	48,162	96,808	11,344	24,591
Others (Value)			113,348		115,599

† *Source:* Indian Bureau of Mines, Nagpur.

* Excluding pearls and synthetic stones.

** Relates to crystalline naturally occurring Galena used in Ayurvedic medicines.

‡ Includes first grade manganese ore and others.

EXPORT OF MINERALS†

(Value in Rs. '000)

Mineral	Unit	1979-80		1980-81	
		Quantity	Value	Quantity	Value
All Minerals			**9,215,156**		**10,239,500**
Barytes	Tonne	342,042	140,284	299,872	132,821
Bauxite	”	45,526	4,844	84,241	8,300
Bentonite	”	20,957	9,345	8,705	5,152
Chromite	”	212,762	142,564	129,944	86,381
Coal	'000 tonnes	93	22,844	108	29,321
Coke	Tonne	2,475	914	—	—
Diamond (Cut)	N.A.	N.A.	4,677,016	N.A.	5,598,766
Dolomite	Tonne	7,142	1,168	8,145	1,959
Emerald ‡	N.A.	N.A.	36,562	N.A.	20,865
Felspar	Tonne	15,547	4,271	8,463	6,020
Ilmenite	”	30,699	12,649	10,000	1,252
Iron Ore	'000 tonnes	24,768	2,852,367	22,403	3,033,310
Kaolin	Tonne	3,766	3,536	4,825	4,757
Kyanite	”	1,463	1,243	1,132	762
Limestone	”	220,900	5,532	199,904	6,061
Magnesite (calcined, non-calcined, dead burnt, fused magnesia and magnesium oxide)	”	6,571	6,869	4,962	7,703
Manganese Ore	”	626,733	131,473	608,740	126,889
Mica	”	28,700	320,811	33,522	306,629
Precious and semi-precious stones*	N.A.	N.A.	428,672	N.A.	314,023
Quartz (Natural)	Tonne	16,407	4,951	22,104	7,336
Sillimanite	”	100	198	160	221
Steatite	”	14,256	10,704	9,494	7,759
Stone (Building and monumental granites etc.)	”	255,028	176,395	344,641	268,370
Sulphur	”	540	1,058	312	694
Other minerals (Value)			21,630		33,788

† *Source:* Indian Bureau of Mines, Nagpur.

N.A. Not Available.

*Excluding pearls and synthetic gemstones.

‡ Includes emerald uncut.

STEEL

THE art of smelting and fashioning of iron is believed to have been known in Asia, the oldest home of civilisation, long before it reached Europe. The Chinese, like pioneers in many spheres, are said to have been adept in steel-making. India also occupied a pre-eminent position in iron and steel-making in ancient times. The famous Kutub Minar in Delhi is said to be 3,000 years old and it represents a forging which weighs between seven and eight tonnes. To this day, the method by which it was produced is as mysterious as the construction of the pyramids.

The modern steel industry in India is only about 70 years old. It came into existence with the launching of the Tata Iron and Steel Works at Jamshedpur in Bihar in 1907. An earlier attempt to start the industry was Kulti Iron Works near Asansol in West Bengal which later became a part of the Indian Iron and Steel Company.

The Jamshedpur Steel Works went into operation by stages in 1911-12. In 1919, Indian Iron and Steel Company established a unit near Asansol, West Bengal. Meanwhile, the first unit in the public sector was put up in Karnataka on the banks of river Bhadra. The production in Mysore Iron and Steel Works began in 1923.

Up to the end of World War II, these three were the main units in India producing 1.7 million tonnes of pig iron and a million tonnes of steel ingots annually.

The development of modern steel industry began during the Second Five Year Plan. Three integrated steel plants in the public sector, each with a one million tonne ingot steel capacity at Bhilai, Durgapur and Rourkela, came into operation in stages between 1959 and 1962. During this period, the capacity of TISCO at Jamshedpur was raised to 2 million tonnes and IISCO at Burnpur to one million tonnes. The total ingot steel capacity thus rose to 6 million tonnes. With the expansion of Bhilai to 2.5 million tonnes ingots, Durgapur to 1.6 million tonnes ingots and Rourkela to 1.8 million tonnes ingots, the total capacity of the integrated steel plants was raised to 8.9 million tonnes between 1962-73. With the establishment of Bokaro Steel Plant in Bihar, the ingot capacity of all these plants has now gone up to 11.4 million tonnes. Bokaro and Bhilai Plants are being further expanded from their present annual 2.5 million tonnes ingot capacity to 4 million tonnes ingot steel each.

Ranking in the World Market: At present, the steel-making capacity stands at 14.6 million tonnes of ingots per year of which 11.4 million tonnes are accounted for by the integrated steel plants and 3.6 million tonnes by the mini steel plants. In 1981, India ranked 16th among the major steel-producing countries in the world.

The total world output of crude steel was of the order of 707.6 million tonnes in 1981. The USSR was the top producer with 149 million tonnes, while USA beat Japan for the second place. Our steel consumption remained at around 15 kgs. per capita as against the figure of around 600 kgs. in the industrially advanced countries of the world.

Consumption (Million tonnes)

Activity	1979-80	1984-85
I. Machinery Manufacture and Metal Products	4.500	7.022
II. Construction Sector	3.500	5.162
Total Domestic (I+II)	8.000	12.184

Employment in the Industry: Generally, it is believed that for every tonne of steel consumed, employment ranging from 4 to 10 persons is created in the downstream sectors. The integrated steel industry itself has a work force of 291,000 in India.

Private Sector:

Tata Iron and Steel Company Ltd. (TISCO) (Head Office: Bombay House, Homi Mody St., Bombay 400023) owns, in addition to the integrated steel plant at Jamshedpur, captive collieries at Sijua, Jamadoba and West Bokaro and an iron ore mine at Noamundi all in Bihar State and iron ore, manganese ore, limestone, dolomite and other mines in Orissa. The steel plant at Jamshedpur is the oldest integrated steel plant in the country. The installed capacity of the plant is 2.16 million tonnes of liquid steel per annum equivalent to about 1.74 million tonnes of saleable steel. The company produces a variety of steel items like bars, structurals, strips plates, black and galvanised sheets, electrical steel sheets, railway materials and rolled rings, besides ferro-manganese, agricultural tools, sulphate of ammonia and benzol products.

Steel Authority of India Limited (SAIL) was set up under the Companies Act, 1956 on 24th January 1973, as a holding company for steel and input industries in the public sector. It was restructured with the passing of the Public Sector Iron and Steel Companies (Restructuring) & Miscellaneous Provisions Act, 1978, which came into force on 1st May, 1978, as an operating company. The operating company of SAIL including its subsidiary, IISCO, have the integrated steel plants at Bhilai, Bokaro, Burnpur, Durgapur and Rourkela and Alloy Steels Plants at Durgapur and Salem. During the financial year 1982-83 SAIL's integrated steel plants produced 6.67 million tonnes of ingot steel.

SAIL is one of the largest industrial organisations in the world, representing a total outlay of over Rs. 50,590 million. SAIL also holds 40 per cent shares in the Visvessvaraya Iron & Steel Ltd., a Government of Karnataka undertaking. Besides controlling and directing operations of the public sector steel plants and marketing their products, SAIL is also charged with the responsibility of assisting the Government of India in the planned development of the steel industry in India.

THE PLANTS

Producing Units: Bhilai Steel Plant, Bhilai, Madhya Pradesh; Bokaro Steel Plant, Bokaro, Bihar; Durgapur Steel Plant, Durgapur, West Bengal; Rourkela Steel Plant (including a fertiliser plant), Rourkela, Orissa; Alloy Steels Plant, Durgapur, West Bengal; Salem Steel Plant, Salem, Tamil Nadu.

Divisions: Central Marketing Organisation, Calcutta; Research and Development Centre for Iron & Steel, Ranchi, Bihar and Centre for Engineering & Technology, New Delhi.

Subsidiary: The Indian Iron & Steel Co. Ltd., Burnpur, West Bengal. (Taken over by the Govt. in 1972.)

Registered Office: Ispat Bhavan, Lodi Road, New Delhi-110003.

BHILAI STEEL PLANT

This plant is one among the first to be set up in public sector, initially with an annual capacity of 1 million tonnes of steel ingots. The capacity was subsequently raised to 2.5 million tonnes of ingots and is now being further expanded to 4 million tonnes. It is proposed to increase its ingot capacity to 5.3 million tonnes by end eighties.

Equipment: Eight coke-oven batteries comprising of 520 ovens and associated by-product recovery plants, four sintering machines, six blast furnaces, 10 open hearth furnaces, 2 Hi reversing blooming mills, one continuous Billet mill and a rail and heavy structural mill, a merchant mill and a wire rod mill. Additional units being provided under the 4 million tonne expansion stage are: one battery of coke ovens and by-products plant, three sintering machines, one blast furnace, three oxygen blown converters, facilities for continuous casting of blooms and slabs and one 3,600 mm wide heavy plate mill.

Capacity: Present annual capacity of the plant is 2,970,000 tonnes of hot metal, 315,000 tonnes of saleable pig iron and 2,500,000 tonnes of ingot steel to be converted into 1,965,000 tonnes of saleable steel comprised of 315,000 tonnes of billets, 500,000 tonnes of heavy rails, 250,000 tonnes of heavy structurals, 500,000 tonnes of merchant products and 400,000 tonnes of wire rods. After expansion, the annual capacity will be 3,948,000 tonnes of hot metal, 630,000 tonnes of pig iron for sale and 4,000,000 tonnes of ingot. Crude steel to be converted into 3,153,000 tonnes of saleable rolled steel comprised of 653,000 tonnes of billets/squares, 400,000 tonnes of heavy rails, 250,000 tonnes of heavy structurals, 500,000 tonnes of merchant products, 400,000 tonnes of wire rods and 950,000 tonnes of wide heavy plates. Annual capacity for by-products is 35,890 tonnes of tar products, 29,250 tonnes of benzol products, 48,100 tonnes of ammonium sulphate and 3,950,000 tonnes of granulated slag.

BOKARO STEEL PLANT

Equipment: Under the 4 million tonnes stage—seven coke oven batteries of 69 ovens each and associated by-products plant, three sintering machines, five blast furnaces, five LD converters each of 100-tonne capacity and two LD converters each of 300-tonne capacity, one 1,250 mm slabbing mill, one continuous 2,000 mm hot strip mill and two cold rolling mills comprising one four-stand 2,000 mm tandem mill and one five-stand 1,400 mm tandem mill and one 1,250 mm continuous hot dip galvanising line.

Capacity: 4,585,000 tonnes of hot metal, 714,000 tonnes of pig iron for sale, and 4,000,000 tonnes of ingots to be converted into 3,156,000 tonnes of saleable steel comprised of 1,496,000 tonnes of hot rolled coils/slit coils/sheets, 100,000 tonnes of galvanised sheets, 170,000 tonnes of tin plate grade sheets and 1,390,000 tonnes of cold rolled sheets/strips. Annual capacity for by-products is 33,300 tonnes of tar products, 41,500 tonnes of benzol products and 36,300 tonnes of ammonium sulphate and 2,350,000 tonnes of granulated slag. Plans are also being studied to increase the capacity further to 4.75 million tonnes of ingots.

DURGAPUR STEEL PLANT

Equipment: A coal washery, five coke oven batteries with 70 ovens each and a by-products plant, two sintering machines, four blast furnaces, nine open hearth furnaces, a continuous blooming and billet mill, a medium section mill, a fish plate plant, a merchant mill, a sleeper plant, a wheel and axle plant and a skelp mill.

Capacity: 1,700,000 tonnes of hot metal, 300,000 tonnes of saleable pig iron and 1,600,000 tonnes of ingots to be converted into 1,239,000 tonnes of saleable steel, comprised of 28,000 tonnes of forging blooms, 300,000 tonnes of billets for re-rolling, 42,000 tonnes of forging billets, 11,000 tonnes of fish plates, 75,000 tonnes of sleepers, 200,000 tonnes of light and medium sections, 240,000 tonnes of merchant sections, 93,000 tonnes of wheels and axles and 250,000 tonnes of skelp. Annual capacity for by-products is 35,000 tonnes of tar products, 13,650 tonnes of benzol products and 26,200 tonnes of ammonium sulphate; 400,000 tonnes of molten slag are to be supplied for granulation. Studies are in hand for modernisation of the plant. It is planned to further increase the capacity to 2.0 million tonnes of ingots. The total saleable steel capacity is planned to be increased to 1.550 million tonnes after expansion.

ROURKELA STEEL PLANT

Equipment: Five coke oven batteries with a total of 330 ovens and a by-products plant, two sintering machines, four blast furnaces, three 50-tonne LD converters, two 60-tonne LD converters, four 80-tonne basic open hearth furnaces, a reversing blooming and slabbing mill, a heavy plate mill, a semi-continuous hot strip mill, a hot rolled electrical sheet mill, cold reducing mills consisting of two reversing mills and one five-stand tandem mill, two reversing skin pass mills, a 2-stand skin pass mill, hood annealing furnace and continuous annealing line, an electrolytic tinning line, two coil galvanising lines, one ERW pipe plant producing pipes of OD 8⅝"—18" and one spiral weld pipe plant producing pipes of OD 14"—64". In addition, there is a Fertiliser Plant for manufacture of Calcium Ammonium Nitrate. A Silicon Steel Project for manufacture of Cold Rolled Grain Oriented (CRGO) and Cold Rolled Non-oriented (CRNO) high silicon electrical sheets is in advanced stage of completion.

Capacity: 1,600,000 tonnes of hot metal and 1,800,000 tonnes of ingots, to be converted into 1,225,000 tonnes of saleable steel comprised of 280,000 tonnes of wide plates, 158,000 tonnes of hot rolled sheets/coils/narrow plates, 312,000 tonnes of cold rolled sheets, 160,000 tonnes of galvanised plain and corrugated sheets, 35,000 tonnes of electric steel sheets, 150,000 tonnes of electrolytic tin plates, 75,000 tonnes of ERW pipes and 55,000 tonnes of spiral weld pipes. Annual capacity for by-products is 48,000 tonnes of tar products, 16,650 tonnes of benzol products, 459,000 tonnes of calcium ammonium nitrate (25 per cent nitrogen) and 600,000 tonnes of granulated slag.

INDIAN IRON & STEEL CO. LTD. (IISCO)

Equipment: Three coke oven batteries of 228 ovens in all, four blast furnaces, seven open hearth furnaces, one blooming mill, one sheet bar and billet mill, two structural mills, one merchant mill and one sheet mill.

Capacity: 1,300,000 tonnes of hot metal and 1,000,000 tonnes of ingots for conversion into 800,000 tonnes of saleable steel comprised of 150,000 tonnes of saleable billets, 100,000 tonnes of rails, 270,000 tonnes of structurals, 160,000 tonnes of bars, 60,000 tonnes of hot rolled sheets, 60,000 tonnes of galvanised sheets and 17,000 tonnes of ammonium sulphate.

ALLOY STEELS PLANT (DURGAPUR)

This plant pioneered the production of Alloy and Special steels in the country. Today it has an installed capacity of 160,000 tonnes and is being expanded to 260,000 tonnes.

Among a wide range of alloy and special steels which the plant produces are armour plate grade steel, stainless steel, forged rounds for seamless tubes and for nuclear fuel complexes. After further expansion it is proposed that stainless steel slabs produced here be sent for rolling into hot bands at Bokaro to be further rolled at Salem Steel Plant into stainless steel sheets in thinner gauges.

SALEM STEEL PLANT (TAMIL NADU)

Designed primarily to produce special steel with accent on stainless steel products, the first stage to produce 32,000 tonnes of cold rolled stainless sheet and strips was commissioned during 1981-82. In the Second Stage, it is proposed to increase the capacity to 70,000 tonnes per year. The ultimate capacity of the plant will be 220,000 tonnes of stainless steel and other special steels.

In the first stage, the plant has one Sendzimir Mill, two Annealing and Pickling Lines, one Skinpass Mill, one Bell Annealing Furnace, one Shearing Line, one Slitting Line, etc.

Equipment: One cold rolling mill with two processing and finishing lines.

Capacity: 32,000 tonnes of cold rolled stainless sheets/strips.

BY-PRODUCTS

Fertilisers: Each SAIL steel plant has by-products recovery units. Apart from a wide range of by-products recovered from the coke oven gas and tar distillation, Ammonium Sulphate is also produced and is marketed under the brand name RAJA. All the plants together produce about 157,000 tonnes of Ammonium Sulphate annually at present.

Rourkela Steel Plant has a separate Fertiliser Plant which produces Calcium Ammonium Nitrate. One of the most sophisticated of such plants in the country, it has a capacity to produce 459,000 tonnes of CAN (25% N) annually. It is marketed under the brand name SONA.

Chemicals: Among the wide range of by-products SAIL plants produce Benzene, Toluene, Xylene, Anthracene, Crude Tar, Solvent Naptha, Pitch tar distillation fractions. These provide raw material inputs for industries like rubber, explosives, pharmaceuticals, essential oils and paints.

Research & Development: The Research and Development Centre for Iron and Steel under SAIL is located at Ranchi and is engaged in planning and coordinating research and development activities for the iron and steel industry in India. Since its inception in 1972, the Centre has carried out a number of technological programmes which has been successfully demonstrated and adopted on commercial scale. In association with the steel plants, this Centre has identified a number of projects in areas like coal and coke, iron making, steel making, mechanical working, etc. and has shown significant achievements in some of these, apart from carrying out research in the field of direct reduction technology for which a pilot plant at Ranchi has been set up.

The Research and Development Centre is interacting with Laboratories of the Council of Scientific and Industrial Research with a view to taking up projects of national importance in consultations with the National Committee on Science and Technology.

Training: SAIL has a Management Training Institute at Ranchi, which organises management development courses for SAIL management personnel as well as for others. All the integrated steel plants in the country have also well staffed and equipped training institutes in which training is imparted in various disciplines to the graduate engineers recruited by the steel plants for the executive cadre. Apart from this, these institutes conduct short duration Supervisory Development Programmes, refresher training programmes, short term vacational training for the engineering students sponsored by their institutes as well as impart training to apprentices in various trades. These institutes also impart training in steel making to trainees from other developing countries.

Imports: Total imports back to back and buffer amounted to 1 million tonnes valued at Rs. 3,582.2 million tonnes during 1980-81 and 1.165 million tonnes during 1981-82.

Exports: Total exports (All India) amounted to 0.049 million tonnes valued at Rs. 124.1 million during 1980-81 and 43 tonnes and 68 nos. valued at Rs. 0.83 million during 1981-82.

NEW STEEL PLANTS IN PUBLIC SECTOR

Visakhapatnam Steel Project (VSP): This is the first shore based plant in India which has been taken up for execution. The design envisages an annual capacity of 3.4 million tonnes of liquid steel which will come up in two stages. The plant will have the tallest coke ovens among Indian Plants (7 metres high), largest Blast Furnaces of 3.200 cubic metre value each and it will adopt the continuous casting route. The plant will produce 71,000 tonnes of light and medium merchant products, 800,000 tonnes of universal beams; of 700,000 structurals and 600,000 tonnes of wire rods. A separate company namely, Rashtriya Ispat Nigam Limited has been incorporated by the Government of India for the implementation of the project.

PRODUCTION, IMPORTS & EXPORTS

Production of steel ingots/saleable steel/saleable pig iron:
(In million tonnes)

Plant	Annual rated capacity	Production 1980-81	1981-82	1982-83
A. INGOT STEEL				
Bhilai	2.500	2.041	2.115	2.130
Durgapur	1.600	0.741	0.930	0.952
Rourkela	1.800	1.65	1.203	1.144
Bokaro	2.500	0.923	1.792	1.828
IISCO	1.000	0.609	0.600	0.623
SUB TOTAL SAIL	9.400	5.479	6.640	6.677
TISCO	2.000	1.874	1.956	1.945
TOTAL	11.400	7.353	8.156	8.622
ASP	0.1/0.16	0.070	0.086	0.081
B. SALEABLE STEEL				
Bhilai	1.965	1.818	1.819	1.818
Durgapur	1.239	0.598	0.782	0.812
Rourkela	1.225	0.985	1.091	0.991
Bokaro	1.971	0.844	1.472	1.529
IISCO	0.800	0.523	0.488	0.500
SUB TOTAL SAIL	7.200	4.746	5.561	5.670
TISCO	1.500	1.537	1.605*	1.620
TOTAL	8.700	6.283	7.265	7.290
ASP	0.060/0.103	0.042	0.052	0.046
SSP	0.032	—	0.003	0.006
C. SALEABLE PIG IRON				
Bhilai	—	0.430	0.504	0.457
Durgapur	—	0.102	0.088	0.105
Rourkela	—	0.012	0.064	0.029
Bokaro	—	0.730	0.452	0.392
IISCO	—	0.064	0.059	0.119
TOTAL	—	1.338	1.167	1.102

*Including Interplant transfers of Coils.

Paradeep Steel Project: Paradeep Steel Plant, earlier proposed as the second shore based plant in the country, is now to be set up in Daitari region in Orissa State. To implement this project, the Government of India have incorporated a new company namely Neelachal Ispat Nigam Limited.

Vijayanagar Steel Project (VNSP): This plant is to be set up in Karnataka State at Vijaynagar. To implement this project, the Government of India have incorporated a new company namely Vijaynagar Steel Limited.

Publications: 'Statistics for Iron and Steel Industry in India—1974', SAIL, New Delhi; 'Iron & Steel Control', Monthly Bulletin, Iron & Steel Controller, 33, N. Subhas Rd., Calcutta 700001; 'Iron & Steel Review', a monthly, 10, Chowringhee Rd., Calcutta 700013.

SHIPPING

THE earliest evidence of shipping and ship-building activity is found in the archaeological remains of the Mohenjo-Daro (Mound of the Dead), in the Indus valley, dating back to some 2500-1500 B.C. Ever since, the shipping and shipbuilding industries have passed through various vicissitudes of fortune.

In Bombay, the well-known Parsi Wadia family achieved great distinction as master builders of ships to the East India Company. In fact, H.M.S. "Asia" was renowned as the Flagship of Admiral Codrington at the Battle of Navarino in 1827. The first steamer to be built in Bombay was the "Hugh Lindsay" which was launched with much fanfare on October 14, 1829. Interestingly, the hero of the Battle of Trafalgar, Horatio Nelson, was a midshipman on H.M.S. "Sea Horse" which was attended to by artificers under the direction of the master builder, Bomanjee Lowjee Wadia, in 1781.

On the eve of the country's Independence, in August 1947, India had only 48 coastal vessels of 119,000 GRT and 11 foreign-going vessels of 73,000 GRT. In April 1947, the Reconstruction Policy Sub-Committee on shipping of the Government of India recommended a planned development of Indian shipping on economic as well as strategic considerations.

Position Today: On January 1, 1983, there were 6.03 million GRT in operation and 0.88 million GRT on order. The shipping tonnage target set in the Sixth Five-Year Plan (1980-85) is 7.5 million GRT.

Ranking in the World: India in terms of GRT occupies the 15th position among the world maritime countries owning a total of 6.2 million GRT as on July 1, 1982.

Among the principal world merchant fleets (as on July 1, 1982), Liberia ranks first owning about (70.72 million GRT), followed by Japan (41.59 million GRT), Greece (40.03 million GRT), Panama (32.60 million GRT), USSR (23.78 million GRT), and the U.K. (22.51 million GRT).

Share of Indian Ships in India's Overseas Trade: The share of Indian ships in the country's Overseas Trade was 31.0 per cent for 1981-82 as compared to 32.3 per cent in 1980-81.

National Maritime Day and Merchant Marine Flag Day: 5th April every year.

Indian Register of Shipping: Inaugurated on April 4, 1975 with its headoffice in Bombay. The National Classification Society supervises shipbuilding and ensures that in operation ships are properly maintained at the requisite standard of seaworthiness. The society has signed collaboration agreements with the American Bureau of Shipping, Det Norske Veritas and Lloyd's Register of Shipping on the basis of dual class.

Chairman: Capt. J. C. Anand; *Chief Executive:* S. R. Khare.

National Shipping Board: Statutory Advisory Board on Shipping on which all the interests concerned including shipowners are represented.

Chairman: Daulat Sinhji Jadeja.

Ship-building Industry: (See chapter on Government of India Undertakings where details of Hindustan Shipyard, Mazagon Dock, and Garden Reach Workshops are given.)

Another new Public Sector shipyard at Cochin delivered its first Panamax vessel of 75,000 dwt., the biggest so far constructed in our country, in July 1981. Its second ship, also a Panamax vessel is in the process of being delivered.

The development programme (Stage II) of HSL provides for raising its capacity to 7 pioneer class vessels per annum and has been sanctioned at a cost of Rs. 550 million.

The Public Sector shipyards Mazagon Dock Ltd., Bombay and Garden Reach Shipbuilders and Engineers Ltd., Calcutta are intended mainly to cater to defence requirements but their capacity is also available for the construction of merchant ships. The Goa Shipyard is also engaged in shipbuilding activities in addition to other general engineering works. The Rajabagan Dockyard is engaged in building inland vessels and harbour crafts such as barges, launches, trawlers, tugs and dredgers upto 2,000 GRT. Two more Public Sector shipyards are proposed to be constructed at Hazira (Gujarat) and Paradip (Orissa).

There are several small shipyards under Private Sector spread over the country which are capable of constructing harbour crafts and inland vessels such as tugs, barges, launches, dredgers, trawlers etc.

A new pricing formula for ships, built in the Public Sector shipyards, was approved in February, 1981. This aims at making Indian built ships competitive in the world market.

Ship-repair Industry: The present ship-repair facilities in the country are inadequate as a result of which there is a large drain in our foreign exchange resources. A 15-year perspective plan for ship-repair facilities in India was drawn up in May, 1982 with the help of consultants.

Research Body: The Government of India has decided to establish a research organisation for designing ships. At present India has to purchase designs.

Freight Earnings: The Indian Shipping Industry has been earning considerable foreign exchange by way of freight earnings. On a rough estimate the freight and passage earnings of Indian Shipping Companies during 1981-82 totalled Rs. 10,000 million. The net foreign exchange earning at 40 per cent gross overseas earnings during 1981-82 comes to Rs. 4,000 million.

TRAINING INSTITUTIONS

Merchant Navy Training Board: At Jahaz Bhavan, Walchand Hirachand Marg, Bombay 400038, advises Government on all matters pertaining to the training of merchant navy personnel. (For other training institutes see chapter on "Education".)

Recruitment of Seamen: The number of seamen registered with the Seamen's Employment offices as on Sept. 1, 1982, for employment on foreign going ships was 24,782 at Bombay and 10,071 at Calcutta. The number of jobs available were 14,200 in Bombay and 4,306 in Calcutta.

On home trade ships the number of seamen registered as on Oct. 1, 1981 were 601 at Bombay for 428 jobs and 191 at Calcutta for 123 jobs.

Seamen's Welfare: The seamen's welfare offices at the ports of Bombay, Calcutta, Madras and overseas at Sydney, London, Liverpool and Glasgow take care of the welfare of Indian seamen. The Principal Seamen's Welfare Officer at London has the additional duties of finding jobs for Indian seamen on foreign owned ships. His jurisdiction is entire Europe.

INSA: The Indian National Shipowners' Association (22, Maker Tower F, 2nd Floor, Cuffe Parade, Bombay 400005) is the national shipowners' organisation founded in 1930. Its objectives are: (1) to promote development of national shipping commensurate with the national needs; (2) to take active measures for the all round development of the maritime industries in all their aspects; (3) to co-ordinate its activities and to co-operate with various national and international organisations on shipping and allied matters; (4) to disseminate information on shipping and allied industries in the domestic and international perspective.

The membership of INSA covers over 97 per cent of national tonnage.

Board of Directors/Office-Bearers: Ramesh B. Garware, *President;* Capt. R. D. Kohli, *Vice-President*; Capt. J. C. Anand, N. H. Dhunjibhoy, S.D. Chowgule, F.G. Dastur, K.M. Sheth, S.V. Dempo, Salmaan S. Moloobhoy, J. G. Saggi, N. M. Trivedi.

Merchant Fleet in Operation

	COASTAL		OVERSEAS		TOTAL	
	No. of Ships	GRT	No. of Ships	GRT	No. of Ships	GRT
As on January 1, 1982	65	300,220	337	5,579,068	402	5,879,288
Acquisitions in 1982	4	50,867	10	192,919	14	243,786
Deletions in 1982	1	12,808	10	80,088	11	92,896
As on January 1, 1983	68	338,279	337	5,691,899	405	6,030,178

(See also under "Commercial Firms"— Manufacturers and Services)

Executives; B. V. Nilkund, *Secretary*; T. S. Narayan, *Special Officer* (Maritime Law & Industrial Relations).

Indian Coastal Conference: It regulates the coastal shipping operations and freight rates on a voluntary basis. *Chairman:* Smt. Sumati Morarjee.

Directorate-General of Shipping (Jahaz Bhavan, Walchand Hirachand Marg, Bombay 400038) is a Central Government organisation under the Ministry of Shipping and Transport. It is an executive agency of the Government on all matters relating to coastal and overseas shipping

Inland Water Transport: The Shipping Ministry is assisted by a Directorate headed by a Chief Engineer-cum-Administrator in the formulation and implementation of the policy on Inland Water Transport. A regional office of this Directorate is located at Patna. The directorate also renders technical advice to State Governments on various problems concerning development.

SMALL-SCALE

THE small-scale industry has been the back-bone of all major industrially developed economy. Rapid and balanced economic growth and expansion of opportunities for employment as well as self-employment have been possible only through a planned policy of promotion of small industries. Industrial activity has been substantially nourished by contribution from the small-scale units with the active support of State and Central Government and they play a major role in the development of our industries.

Though the development of the small-scale industry is primarily the responsibility of the State government, the Centre supplements the State government schemes.

The foundation of the small-scale sector was laid down in 1953 when the Government of India invited an International Planning Team to study the opportunities for small-scale industries in India. The recommendations of the team formed the basis of the government's policy for expansion of the small-scale industry. The Industrial Policy Resolutions of 1956 and 1970 also reiterated the importance of the small-scale sector which completed 27 years of its existence in 1983.

To help government formulate the various programmes and policies relating to the development of the small-scale industries, the Small-scale Industries Board was set up in 1954 and reconstituted in 1961. A Central Small-scale Industries Organisation was also set up under the Development Commissioner, besides the State Directorate of Industries, to look after the problems of the small-scale industries. Various schemes have been drawn up to attract and assist entrepreneurs of small units by a liberalised policy of loans, grants, etc. through the National Small Industries Corporation (NSIC) besides the Credit Guarantee Scheme of RBI, State Financial Corporations and other financing bodies. Service Institutes have been opened in most of the States to provide economic and commercial information useful for setting up small-scale units. Extension centres provide special technical know-how.

Another feature of the industrial policy is the establishment of industrial estates which was initiated in 1955.

A research and training institute, the Small Industry Extension Training Institute (SIET), has also been established by the Government of India.

The growth of small-scale units has been phenomenal. From 16,000 small-scale industries in 1950, the graph of progress showed a steady climb: 42,000 in 1960, 527,000 in 1976 and 596,000 in 1982-83. From an employment capacity of 2.9 million in 1966 it has risen to 7.9 million in 1982-83.

Small-scale industries are distinct from village industries and handicrafts. The latter does not need sophisticated modern machinery and equipment and their products mainly cater to the local markets. The Khadi and Village Industries Commission looks after the village industries and the problems of rural artisans channelising such items into foreign markets as well.

Small industries, on the other hand, can and do produce a number of consumer items like bicycles, domestic electrical appliances, surgical tools, matches, sports goods, mechanical toys, etc. In order to protect this sector government has published a separate list of reserved items for exclusive manufacture in the small-scale sector and their number has risen from a mere 150 to 837 items in 1982-83.

Small-scale industries can be classified under four main groups: manufacturing industries, feeder industries to large industries, servicing industries and ancillaries to large industries.

Though large industries attract more attention by their size and capital investment it is the small industries which generate more employment per unit of investment. Their balanced growth leads to greater diffusion of wealth and is thus more suited to a developing country like India faced with scarcity of capital and energy. Small industries eat up less capital at the same time contributing to the gross national product. They can be set up with minimal infrastructural facilities and consume less energy in comparison to large industries thus creating less pollution

Definition: Small-scale industries are those "Undertakings having investment in fixed assets in plant and machinery not exceeding two million rupees and in the case of ancillary units upto Rs. two million and fifty thousand rupees."

Production: Production in small-scale units registered with State Directorate of Industries increased to Rs. 167,600 million in 1980-81 compared to Rs. 103,690 million in the previous year.

The number of registered small-scale units in the country rose to 0.596 million in 1982-83 as against 0.527 million in 1981-82.

The total value of production of small-scale units, both registered and unregistered is estimated to have increased from Rs. 326,000 million during 1981-82 at the current prices to about Rs. 350,000 million (Provisional) during 1982-83.

Exports: The estimated value of exports from the small-scale sector, is likely to increase from Rs. 20,260 million in 1981-82 to about Rs. 23,900 million in 1982-83.

District Industries Centres (DIC): This programme which was introduced in 1978-79 and subsequently restructured in pursuance of the Statement on Industrial Policy announced in parliament in 1980, provides a focal point for the promotion of small, tiny, village and cottage industries and aims at providing all the services and support to the decentralised industries sector under one roof, as far as possible, to the entrepreneurs specially those located in the rural areas and small towns of the country thus creating larger employment opportunities.

Progress during 1981-82: The annual progress reports for 1981-82 were received in respect of 333 DICs out of 385 DICs sanctioned. As per information received, 349,155 entrepreneurs were identified, 96,284 project profiles were prepared, 188,195 new registrations were done and 308,221 new units comprising of 238,241 artisan-based units and 69,980 small-scale units were established' resulting in creation of additional employment opportunities for 957,215 persons. The credit assistance provided by the financial institutions during the year amounted to Rs. 4,243.8 million and 188,558 units were provided technical and other assistance. The analysis of these data revealed marked improvement in the progress achieved per DIC on an average over the previous period. 926 new units, comprising 716 artisan-based and 210 small-scale units were estalished resulting in the creation of additional employment opportunities for 2,875 persons per DIC on an average during 1981-82 as compared to 733 new units comprising of 547 artisan-based and 186 small-scale units set up during the preceding year i.e. 1980-81 which had created additional employment opportunities for 2,491 persons per DIC on an average. Credit assistance provided by financial institutions amounted to Rs. 12.7 million per DIC during 1981-82 as against 8.9 million per DIC in 1980-81.

Incentives: With a view to correcting regional imbalances and industrialisation of the backward areas of the country, the Government provides incentives to enable entrepreneurs to establish industrial undertakings in the backward areas. These include concessional finance extended by All-India Term Lending Institutions, outright subsidy on fixed capital investment, preferential treatment in the grant of industrial licences, etc. The scheme of concessional finance covered 246 districts out of which 101 districts/areas were identified for the purpose of Central Subsidy Scheme. At present there are 87 no-industry districts.

Ancillary Industries: Ancillary Industries are supportive industries to other manufacturing and servicing industries and are defined as such, if the investment in plant and machinery in such an industry is upto Rs. 2.5 million.

Government, in its new industrial policy statement of July 1980 has recognised the need to strengthen ancillary development and other allied industrial operations of common procurement, manufacturing and marketing of products. While the Government will not allow concentration of economic power and monopoly development, it will encourage, within the existing regulatory powers and the registering authorities, broad-based industrial development with formal linkages fostered between small units and large units amongst all industries and regions.

Major priority industries like power, transport, communication, electrical and electronics equipment, machine building, consumer durables, chemicals and drugs, rubber and plastics are likely to register higher annual growth and therefore the associated ancillary industries also will register higher growth rate between 10 per cent to 15 per cent annually.

Small Industries Development Organisation has set up Sub-contracting Exchanges in 16 Major Small Industries Service Institutes in the country, located at Srinagar, Ludhiana, Jaipur, Ahmedabad, New Delhi, Bombay, Kanpur, Patna, Calcutta, Trichur, Bangalore, Madras, Cuttack, Hyderabad, Gauhati and Indore. These Sub-contracting Exchanges act as clearing houses of information relating to the anticipated requirements of large and medium undertakings and the capacity available with technically competent small-scale sub-contracting and ancillary units in the above areas.

Through a set of guidelines issued by the Bureau of Public Enterprises, all Public Sector Undertakings have been asked to adopt the programme of ancillaries development in a systematic manner with the active co-operation of the Small Industries Development Organisation and the State Governments. During 1980-81, 80 Public Sector Undertakings had recognised 984 small-scale ancillaries and had procured goods worth Rs. 1,519.0 million from small-scale/ancillary units. During 1981-82, 102 Public Sector Undertakings had recognised 1,153 small-scale ancillaries and had procured goods worth Rs. 2,332.6 million from small-scale/ancillary units. The performance of the undertakings in the private sector has been equally noteworthy.

RESERVED INDUSTRIES

Following is the list of industries reserved exclusively for development in the small-scale sector:

Food and Allied Industries: Ice cream, dehydrated vegetables, pickles & chutneys, vinegar, rice milling, dal milling, bread, biscuits, confectionery, rape seed oil except solvent extracted, mustard oil except solvent extracted, sesamum oil except solvent extracted, groundnut oil except solvent extracted, sweetened cashewnut products, poultry feed and ground processed spices.

Textile Products including Hosiery: Cotton cloth knitted, cotton vests knitted, cotton socks knitted, cotton undergarments knitted, cotton shawls knitted, other cotton knitted wares, woollen cloth knitted, woollen vests knitted, woollen socks knitted, woollen scarves knitted, woollen undergarments knitted, woollen caps knitted, woollen shawls knitted, woollen gloves, woollen mufflers knitted, other woollen knitted wares, stove wicks, readymade garments, cotton belting, belt lacing and measuring tapes—cotton.

Wood and Wood Products: Wooden crates, tea chest plywood, seasoned wood, wooden sewing machine covers, cable drums for AA & ACSR conductors, tent poles, wooden plugs, handles — wooden and bamboo, teak fabricated round block, wooden furniture and fixtures, wooden storage cupboards, wooden storage shelves & racks and wood wool slabs.

Paper Products: Waxed paper, bituminised waterproof paper, decorative papers, corrugated paper & boards, paper bags, composite containers, paper board cartons, paper cups/plates, paper envelopes, corrugated fibre board containers, paper twines, strings and ropes, paper cones, paper tubes, drinking straws, paper napkins including facial tissue napkins, gummed tape, teleprinter rolls, stencil paper, tele-tape rolls, slitting of ordinary paper into rolls & sheets, toilet paper rolls and sheets, paper straps, stickers, labels of gummed paper etc., treated tracing paper, gummed paper for stamps, gummed paper other than for stamps, sanitary towels, transfer labels, exercise books and registers, letter pads and file covers and file board.

Leather and Leather Products including Footwear: Sole leather, kattai and bunwar leather, picking band leather, leather pickers and other leather accessories for textile industry, vegetable tanned hides and skins—semi-finished, chrome tanned hides & skins—semi-finished, lining leather from goat & sheep skins, laminated leather belting, harness leather, leather shoes, leather shoe upper-closed, leather sandals and chappals, leather garments, leather suit-cases and travel goods, leather purses & hand bags, fancy leather goods & other novelty items, watch straps—leather, leather cases and covers of all types, industrial leather gloves & leather washers and laces.

Rubber Products: Rubberised cloth—by doctor's blade technique, canvas hoses, tyres—cycle & cycle rickshaw, tubes—cycle and cycle rickshaw, tyre retreading, camel back-tyre retreading materials, surgical gloves—latex, hot water bags—rubber, ice bags—rubber, rubber balloons, rubber hose pipes excluding braided hoses, rubberised canvas hose pipes, excepting wire-braided high-pressure hydraulic hoses, rubber tubes, rubber washers, oil seals—rubber, rubber thread except bare rubber thread of over 80 gauges and heat resisting rubber thread, rubber eraser, hard rubber battery containers, rubber to metal bonded parts, O rings—rubber, latex foam & latex foam products, microcellular sheets, other dipped latex products except contraceptives & rubber blowing agents—hexamine based.

Plastic Products: Full PVC Footwear—chappals, sandals & shoes, Blow moulded plastic—HD PE/PVC containers—upto 5 litre capacity, Acrylic sheets, Fibreglass reinforced plastic products, Hessian, Paper and cloth to polythelene laminations straight and sandwiched by extrusion coating process except paper to polythene laminations for integrated packing for hygienic and sanitary packing of liquid milk and other liquid food, HD polyethylene mono filament, Polypropylene mono filament, Polyethylene films except co-extruded with thickness less than 0.10 mm., Products of polyethylene film as coloured, printed film & bags, Spectacle frames by fabrication or by injection moulding, Polypropylene tubular films except biaxially oriented, Industrial items from engg. plastics, Plastic collapsible tubes, Polypropylene box strapping, Polyethylene and PVC flexible hoses, Polyurethane foam, Polyurethane foam products, Polystyrene foam products, Plastic buttons, Other fabricated plastic products, Plastic combs, PVC pipes including conduits—upto 100 mm. dia., Fittings for PVC pipes including conduits—upto 100 mm. dia., Zip fasteners—non-metallic, Compression moulded plastic products excluding decorative and industrial laminates, plastic rain-coats, plastic bottle caps, Flash-light torch cases—plastic, Polyester sheets, other thermo-welded plastic products Contact-lenses and Watch straps—PVC.

CHEMICALS AND CHEMICAL PRODUCTS

Laboratory Chemicals and Re-Agents: Ammonium sulphate-Lab, Ammonium fluoride-Lab, Ammonium Carbonate-Lab, Antimony potassium tartrate-Lab, Aluminium sulphate-Lab, Ammonia solution-Lab, Cadmium acetate-Lab, Cadmium carbonate-Lab, Calcium Chloride-Lab, Chromic acid-Lab, Cobalt sulphate-Lab, Cobalt nitrate-Lab, Cupric nitrate-Lab, Cupric Sulphate-Lab. Dimethyl sulphate-Lab, Ferrous sulphate-Lab, Lead acetate-Lab, Lead nitrate-Lab, Magnesium trisilicate-Lab, Nickel carbonate-Lab, Nickel formate-Lab, Nitric acid-Lab, Potassium nitrate-Lab, Potassium chloride-Lab, Hydrochloric acid-Lab, Potassium iodide-Lab, Potassium sulphate-Lab, Sodium nitrate-Lab, Sodium oxalate-Lab, Sodium sulphate anhydrous-Lab, Silica gel-Lab, Silver nitrate-Lab, Sulphuric acid-Lab, Acetic acid glacial-Lab, Acetone-Lab, Iso-Amyl acetate-Lab, Amyl alcohol-Lab, Benzene-Lab, Butyl alcohol-Lab, Chloroform-Lab, Diethyl ether-Lab, Ethyl alcohol-Lab, Ethyl acetate-Lab, Iso-Amyl alcohol—for milk testing-Lab, Iso-Propyl alcohol-Lab, Methyl alcohol-Lab, Petroleum ether—different distillation ranges-Lab, Petroleum ether—for chromatography-Lab, Toluene-Lab, Nickel sulphate-Lab, Zinc Oxide-Lab, Para-Aminophenol-Lab, Potassium citrate-Lab and Cadmium chloride-Lab.

Dye-stuff: Basic dyes, Optical whitening agents for cotton textiles, Azo dyes—direct and acid, Naphthols-AD, ASD, AS/E, AS/G, AS/LC, AS/LRG, AS/BS etc., Phthalocyanine—blue & green, Reactive dyes—cyanuric chloride group, Fast colour bases and Indigo.

Natural Essential Oils: Cashew shell oil, Sandalwood oil, Pine oil—except for composite schemes, Eucalyptus oil, Lemongrass oil, Palmarosa oil and other natural essential oils.

Organic Chemicals, Drugs and Drug Intermediates: Para-aminophenol—Indl. grade, Para-dichlorobenzene—balls, Cubes etc., Tartaric acid—from maleic anhydride, Dimethyl sulphate—based on methyl alcohol, Pyrazolones, Potassium citrate—Indl. grade, Other citrates, Tartrates, Diethyl phthalate, Dioctyl phthalate, Dibutyl phthalate, Dimethyl phthalate, Benzyl chloride, Benzyl benzoate, Paint driers—Naphthanates, Octoates, Linoleates, etc. of Lead, Cobalt, Manganese, Zinc, Calcium etc., Chlorinated paraffin wax (upto 60 per cent chlorine content), Fumaric acid, Paracetamol, Glycerophosphates, Glycerophosphoric acid, Lanolin anhydrous, Xanthates, Dichlorophenol, Methyl Parabens starting from Para Hydroxy Benzoic acid, Ethyl Parabens and Propyl Parabens starting from Para Hydroxy Benzoic acid, Calcium Gluconate, Turpentine, Resin, Polyester resins, PVC compounds, Alkyd resins and Nicotinic acid.

Other Chemicals & Chemical Products: Wax candles, Naphthalene balls, Potassium meta bi-sulphate, Barium carbonate, Barium sulphate, Barium sulphide, Sodium sulphide, Sodium thiosulphate, Calcium chloride—Indl. grade, Zinc oxide—Indl. grade, Aluminium hydroxide gel, Zinc nitrate, Nickel sulphate, Nickel chloride, Nickel carbonate, Nickel formate, Copper sulphate, Copper nitrate, Copper chloride, Cadmium oxide, Cadmium iodide, Cadmium nitrate, Cadmium phosphate, Barium chloride, Barium nitrate, Zinc chloride, Zinc sulphate, Copper oxy-chloride, Copper carbonate, Potassium iodide, Sodium iodide, Precipitated silica, Sulphur powder—other than insoluble, for rubber vulcanisation, Sodium chromate, Sodium thiocyanate, Magnesium sulphate, Electroplating salts—compounded, Zinc cyanide, Cadmium cyanide, Potassium bichromate, Ammonium bichromate, Artists colours—oils, water and wax based, Red lead paints, Red oxide paints, Wagon black paints, Graphite paints, Paste paints, Shoe polish, Wood polish/French polish, Metal polish, Aluminium paints, Bitumen based paints, Floor polishes, Dry distempers, Halogenated Hydroxy-Quinolines (starting from 8-Hydroxy Quinolines) except for integrated schemes for the manufacture of 8-Hydroxy Quinolines, Laundry soap, Formulated perfumery compound, Tooth paste, Tooth powder, Hair oils, Safety matches, Fire works, Blue print papers—all types, Guar gum, Animal glue, Office gum paste, Sachharine, Agarbathis, Sodium silicate, Sealing wax, Industrial adhesives based on starch, gum, dextrin and silicates, Alums including aluminium sulphate—Ind. grade, Potassium silicate, Calcium silicate & Synthetic adhesives—Rubber latex PF and PVA based.

Glass and Ceramics: Fire clay, Bricks and blocks, Roofing tiles, Flooring tiles, Ceramic tablewares and allied items in stonewares, semivitreous wares and earthwares namely:—Dinner sets, Tea sets, Cups and saucers, Jars and other containers, Vases, Ash trays, Mugs and bowls, Glass beads, Simple glass mirrors excluding specialised glass mirror such as those meant for optical instruments etc., Glass tubings (excepting machine drawn), Scientific laboratory glassware (excluding Boro-silicate types), Micro-cover glasses and slides fo microscopes, Glass bangles, Glass hollow ware by mouth blow and/or semi automatic process, Glass pressed wares, Glass marbles (all types), Low tension insulators, Chemical porcelain, Lime (other than captive consumption), Hydrated lime (other than captive consumption), Plaster of Paris (excepting for use as construction material), chalk crayons including Tailors' chalk, Plaster board (excepting for using automatic process). Stoneware jars an bowls-Kundies, salt glazed sewer pipes, Asbestos pipes an fittings—for household purposes only an according to ISI specification. Glazed tiles upto 10 cms. × 1 cms., Reinforced cement concrete pipes upto 100 cms. dia Graphite crucibles—upto 500 nos. & Silicon carbide crucibles upt 100 nos.

Mechanical Engineering excluding Transport Equipment: Manhol covers—CI, Weights, Circlips, Bright bars, Pressure die casting—upto 4 kg., MS and CI flanges, Conduit pipes metallic, Flexib metallic pipe upto 35 mm. dia.—for non-pressure applications stranded wires (excluding high tensile prestressed concrete wires) Machine shop vices, Mechanical jacks upto 30 tonnes, Hydraul jacks upto 30 tonnes capacity, Signal ladders, Street light fittings Steel almirah steel vaults, safes and cash boxes excluding fir resistant safe, jewellers safe, safe deposit locker and safes with saf deposit locker. Meat and food safes—metallic, Metal cabinets—al types, Steel trunks, Tin containers unprinte —other than OTS and cans upto 18 litres capacity, G.I Buckets, Barrels upto 60 litre cap., Drums upto 60 litre cap., Ti trays, G. I. Bath tubs, Dust bins, Sanitary fixtures—metallic, cock and valves used as domestic pipe fittings, M. S. pipe fittings—upt 100 mm. dia., Pressure stove, Wick stoves, Hurricane lanterns Signal lamps, Hand lamps, Shoe tacks, Shoe eyelets, Umbrella rib and fittings, Zip fasteners—metallic, Tin cutters, Belt fasteners Snap fasteners, Pilferproof caps, Gun cases, Doors, windows an ventilators—metallic, Rolling shutters, Lantern posts and bodies Aluminium furniture, Adjustable beds—hospital, Iron and stee cots—all types, Storage cupboards—iron and steel, Racks—all typ including angular racks—iron & steel, Wheel chairs for invalid Steel chairs—all types steel tables—Hospitals, Steel tables—a other types, Trolleys—railway platform drinking water, Trolleys—iron and steel—Hospital Stretchers—iron and steel, Storage bins—steel, furniture—all other types, Hacksaw frames, Pliers, Screwdri ers, Spanners, Hammers, Anvils, Wood-working saws, Wrenche Knives and shearing blades (all types including those of meta paper, bamboo and wood for manual operations), Nail puller Chisels, Pincers, Wire cutters, Other hand tools for blacksmith carpentry, handforging, foundry, etc., Bolts and nuts—except hi tensile and other special types, Rivets of all types including bif cated, Wire adjusting screws, Tumbler locks, Padlocks, Safe/cabin locks, Door locks, Locks—bicycles, Other locks—except for Aut mobiles, Chains lashing, Persian wheels, Chaff cutters, Chaff cutt blades, Animal driven implements, Crow-bars, Plough shears/Ir ploughs, Cultivators, Disc harrows, insecticide dusters—manu Insecticide sprayers—manual, Forks, Hoes, Levellers, Mowe Stainless steel utensils, Pickers— metallic, Handpumps, Seed tr ters, Hand shovels, Sickles, Seed bins, Water lifters, Kudali, Oth agricultural implements, Wire nails, Panel pins, Wood screw Machine screws—except socket head and special types, Gate-hoo Shoe nails—animal, Hob nails, Builders hardware, Nail cutter Metallic washers, Barbed wire, Spoons—cutlery, Fork—cutler

Table knives/household knives, Bread cutters, Other cutlery items, Domestic utensils—brass, Domestic utensils—aluminium, Domestic utensils—bell metal, Domestic utensils—copper, Domestic utensils—iron, Domestic utensils—silver, Domestic utensils—bronze, Domestic utensils—German silver, Pressure cookers, Gas appliances such as cooking ranges, ovens, etc., Gas lighters—mechanical, Razors, Safety pins, Watch straps—metallic, Beam scales, Postal weighing scales, Expanded metal, Welded wire mesh—except for expansion of existing units, Wire gauze and wire netting—metallic—thicker than 100 mesh size, Steel wool, Hair pins, Metal fittings for leather goods and garments, Ghamelas, Blacksmith hearths, Brass dampers, Measuring tapes—steel, Lamp holders, Winnowers upto 5 HP motive power, Wheat and rice threshers upto 5 HP motive power, Seed cleaners upto 5 HP motive power, Grain driers upto 5 HP motive power, Shell huskers upto 5 HP motive power, Reapers upto 5 HP motive power, Cotton delinting machine upto 5 HP motive power, Seed drills upto 5 HP motive power, Other agricultural machinery upto 5 HP motive power, Harvester, grader and other earthmoving blades used in agricultural machines, Low speed gear for use in agricultural machines, threshers—made of cast iron/mild steel—non-heat treated, Diesel engines upto 15 HP—slow speed, Rice and dal mill machinery, Oil crushers. Oil crusher parts, Cotton ginning knives, Tea cutting knives, Three knives trimmer and envelope cutters, Clicking knives for leather industry, Chopping knives and lancets for match industry, Plastic shredding and granulating knives, Knives and shearing blades (all types, including those for metal paper, bamboo and wood for hand operated machines), Doctor blades, Stainless steel refiner bar knives, Concrete mixers upto 3 cubic metres capacity, Band saw blades for cutting wooden logs, Room cooler—desert type, Airconditioning ducting, louvres, grills and other sheet fabrication in airconditioning, Centrifugal pumps upto size 10 cm x 10 cm, Air compressors upto 5 HP for spray painting repair shops, Electro formed screens/liners used in the chemicals and sugar industries, Simple cone pulley driven lathe upto 2000 mm bed length, Turning, boring and threading—addas—small single or multiple operation devices, Bench grinder upto 300 mm diameter, Power hacksaw—mechanical—300 mm blade size, Coolant pumps, etc., Steadies, Dog plates, Machine vices—machine tool, Carbide-tipped tools, single point brazed—carbide bits purchased from manufacturers, Weighing machines/weighbridges (ordinary), File mechanism, Sewing machines—domestic, hand operated—conventional type, Household knitting machine, Absolute filters for biological and airconditioning application, Duplicating machines—other than those of special type, Bottle washers, Satchet filling machines for pouches, Sheep shearing machine, Double can mixer—dairy equipment, Micro pulveriser—dairy equipment, Rotary driers—dairy equipment, basket type centrifuges—dairy equipment, Milk cooling and ghee settling equipment—dairy equipment, Evaporating pans—dairy equipment, Butter churn—dairy equipment, Curd mills—dairy equipment, Agitators—dairy equipment, Storage tanks for dairies and all poultry equipments.

ELECTRICAL MACHINES, APPLIANCES & APPARATUS INCLUDING ELECTRONICS

Electrical: Potential transformers 11 kV except for captive consumption, Current transformers 11 kV except for captive consumption, Boosters, Voltage stabilizers (domestic), Electric motor 1 HP to 10 HP—AC except special types, F HP Motor—AC—excluding special types, PVC wires—domestic type, VIR wires—domestic type, Table fans, Exhaust fan upto 460 mm, Miniature vacuum bulbs, Torch bulbs, Radio panel bulbs, Cycle dynamo bulbs, Decoration bulbs, Electric irons—ordinary/autosteam upto 3.63 kg., Electric stoves upto 3 kW, Hot plates/boiler plates upto 3 nos/upto 4 kW, Cooking ranges upto 4 hot plates/boiler plates with/without baking oven hot cases upto 4 kW, Storage water heaters/geysers upto 100 litres capacity/upto 3 kW, Electric kettles/sauce pan—ring types upto 1.70 litres, Mixers/grinders such as meat mincer, juice extractor, cap. of jar 1 litre max./upto 500 watts 30 minutes rating, Hair driers—all types, Hot cases upto 113.2 litres, Hot air blowers/heat convector upto 2 kW upto fan size 26 cm/20 cm x 6 cm, Room heaters upto 3 kW, Egg boilers upto ½ dozen eggs, Water boilers upto 100 litres capacity, Espresso coffee makers upto 1.70 litres capacity, Coffee percolators upto 1.70 litres, Immersion water heaters upto 3 kW, Food warmer trays upto 500 watts, Electric auto tandoors, Bread toasters ordinary/auto/semi-auto upto cap. 6 slices, Ice cream makers cap. 1 litre for use with domestic refrigerators, Washing machine with/without spin driers upto 3.63 kg. cap./upto 3 kW, Baking ovens with/without provision for roasting/grilling upto 56.6/litres & 1 kW, Electrical light fittings—reflectors, Electrical wiring accessories, Electrical light fittings—chokes, Electrical light fittings—starters, A.A. conductors upto and including 19 strands, A.C.S.R. conductors upto and including 19 strands, Air break offload isolators upto 11 kW including gang operated, Carbon brushes manufactured from carbon block, Black adhesive insulating tape—electrical use, Emergency lamps, Electrical transmission line, Hardware and conductor accessories (other than those manufactured in malleable casting and preformed types), Metal clad switches upto 100 AMPS/ miniature circuit breakers.

Electronic Equipment and Components: Radio/Car Radio—low cost upto Rs. 250 each, T.V. Antennas, T.V. tuners, T.V. Games, T.V. deflection components pick up cartridges, T.V. Booster amplifiers, Radio & T.V. Coils, Amplifiers for entertainment and public address system, Assembly of loudspeakers, Electronic cigarette lighters, Invertors & Convertors upto 500 volts amperes, Regulated D.C. power supplies upto 0.01% regulation, Electronic fan regulators, Dimmers & twilight switches, Digital clocks, Wire-wound resistors other than professional types, I.F. Transformers, Telescopic aerials for radio receivers, Battery eliminators, Electronic flashgun and hearing aids.

TRANSPORT EQUIPMENT

Boats and Truck Body Building: Wooden boats—body building, Truck body-building—wooden structure and seats for buses and trucks.

Auto Parts Components and Ancillaries and Garage Equipment: Window channels—auto, Wiring harness, Arms and blades of wind shield wipers, Grease nipples, Gun metal bushes, Bulb horns, Hub caps—auto, Hose pipes and radiator hoses—auto. Horn buttons, King pins/shackle pins—automobile use, Auto leaf springs excluding tapered leaf springs, Luggage carrier, Ornamental fittings—auto, brake and pedal pads—auto, Automobile radiators except for expansion on merits, Radiator grills—auto, Rear view mirrors—auto, Seat cushion, Steering wheels—auto, Sun shades—auto, Side lamp assembly—auto, stop lamp assembly—auto, Tail lamp assembly—auto, Ash trays—car fittings, Battery cables and fittings, battery cell tester, electrical fuse boxes—auto, electrical fuses—auto, exhaust mufflers—auto, fan belts, fuel tank caps—auto, fuel lines—auto, handles & locks—auto, armature tester, battery terminal lifters, condensors and resistance testers, fenders spoons and hammers, feeler gauges, flaring tools, gear flushers, puller of all types, ring expanders, ring compressors, screw extractors, spark plug tester & cleaners, stud removers—extractors, toe in gauges, tyre valve pullout tools, tube cutters, flanging tools, valve lifters, valve replacing & resetting tools, camber testing equipment, painting equipments like spray guns, etc., grease guns, tyre inflators—both hand and foot operated, electric horns—auto, other auto rubber components, spokes and nipples—auto cycle & sun visors—auto.

Bicycle Parts, Tricycles & Perambulators: Cycle frames, B. B. axles, B. B. cups, B. B. shells, bicycle tube valves, handles bicycle, bolts & studs and screw—all types-bicycle, bells-bicycles, carrier-bicycle, chains-cycle, chain wheels & adjusters-bicycle, lamps-bicycle, chain covers, cones-hub cones-bicycle, cotter pins-cycles, crankshafts-cycles, crown outer cover-cycle, cycle dynamos, D-nuts-cycles, eye bolt cups-cycle, fork blade crown cover-cycle, fork handles-cycles, frame collars-cycle, guide pins-cycle, handle bar grips, hub oil clips-bicycle, hub axle nuts-bicycle, lock nuts & ring-bicycle, lugs-all types-bicycle, mudguards-bicycle, lamp brackets-bicycle, pedal assembly-cycle, saddle-cycle, shackle rivets-cycle, stands-cycle, spokes & nipples-cycle, hubs and cups-bicycle, rims-cycle, other cycle parts and accessories except free wheel, tricycles, tricycles-parts & accessories, perambulator & perambulator parts and accessories.

Miscellaneous Transport Equipment: Hand & animal drawn carriage fittings, *tonga* parts and wheel rings, wheel barrows, animal-drawn vehicles & hand-drawn carts of all types.

MISCELLANEOUS

Mathematical and Survey Instruments: Alidades, chain line base measuring apparatus, cross staff, compass prismatic, dividers, drawing boards, dumpy levels drawing instruments—engg., diagonal scales, engineers level, engineering scales, French corners, ghat & reed tracers, measuring chain, optical square, protractors, plane meters, plane table equipment, ranging rod, flat rule, set square, slide rule, sextant, triangular scales, tee, T-squares, callipers, drafting machine for designing & drawing offices and other drawing mathematical and survey instruments excluding theodolites.

Sports Goods: All types of sports nets, shuttle cocks, hockey sticks, protective equipments for sports like pads, gloves, etc. soft leather goods, dumb-bells and chest expanders, cricket & hockey balls & football, volley-ball and basketball covers.

Stationery Items: Writing inks & fountain pen inks, ball point pens, pen nibs, fountain pens & ball pens components excluding metallic tips, pencils, hand stapling machines, paper pins, carbon paper, typewriter ribbon, hand numbering machines, pencil sharpeners & pen holders.

Clocks and Watches: Clocks—wall clocks, pendulum type both with mech. movement, transistorised movement, except lever type clocks, time-pieces mechanical winding with alarm conventional & watch dials except ornamental high priced dials—simple dials, cast brass watch cases—polished & plated.

Others: Umbrellas, hypodermic needles, sterilisers—stainless steel & aluminium, microscopes for students and medical use, water meters, pressure gauge—upto 3.52 kg. per sq. cm., revolution counters, mech., liquid level controller, thermometers—upto 150C, photographic enlargers, projectors including slide and overhead projectors but excluding profile projectors, wire brushes, paint brushes, hair brushes, fibre brushes, tooth brushes, brushes—natural bristles, other brushes, mechanical toys, non-mechanical toys, bone meal (except captive consumption for 100 per cent export), crushed bones (except captive consumption for 100 per cent export), cufflinks, tie-pins, metallic dress buttons & buckles, spectacle hinges, absorbent cotton, cigarette lighters.

List of items reserved for exclusive development in the small scale sector (from June 1980 to April 1982): Water soluble wood preservative based on copper, chrome, arsenic boric compounds; HDPE woven sacks (except sacks manufactured on circular looms); P.P. woven sacks (except sacks manufactured on circular looms); Coke briquettes (except lignite and for integrated plants); Coal briquettes (except lignite and for integrated plants); MS. Storage tanks upto 15,000 litres storage capacity (simple type with rivets/welds but excluding pressed ribs); Hand threading tap holders; 12 mm Drilling machine upto 1500 rpm—bench and pedestal type; Screw Presses (manually operated); Hand Presses (manually operated); Ortho-Aminophenol; Crown Corks (except for captive consumption)

List of items dereserved during the period June 1980 to April 1982: Sodium Bichromate; Dehydrated vegetables; Tyre retreading; Rubber to metal bonded parts; Tartaric acid from maleic anhydride; Fumaric acid; Sodium chromate; Potassium bichromate; Ammonium bichromate; Simple cone pulley driven lathe upto 200 mm bed length; Satchet filling machines for pouches; Fan belts; Hypodermic needles; Pressure gauge upto 3.52 kg. per sq. cm.

Banned Items: From time to time, the office of Development Commissioner, Small Scale Industries issues a list of items for which registration of new units and expansion of existing units is not to be encouraged. The position obtaining on 30th April 1982 is as follows:-

Items for which no registration is to be done at all: 1. Pesticides Formulations; 2. Flexible Polyurethane foam; 3. Transformer oil; 4. Baby Food; 5. Malted Milk Food; 6. Stainless Steel Wires in thicker gauges; 7. Cold Rolled Steel Strips; 8. Recovery of Zinc Metal from Zinc ash, dross, waste etc.; 9. Re-rolling of Steel including Stainless Steel; 10. Ammonium Nitrate from Calcium Ammonium Nitrate (fertiliser grade); 11. Non-power operated acid Shurry/detergent formulations; 12. Wire Drawing of Steel and items requiring wire rods as an essential raw material; 13. Items requiring Commr. Grade Aluminium as Raw Material (in the form of Ingots); 14, Steel Pipes and Tubes excluding conduit pipes and manually welded furniture tubes; 15. Refining of Slack Wax; 16. Tin Containers and similar products using tin sheets; 17. Calcined Petroleum Coke; 18. Processing of C.I. scrap.

Items for which registration is to be restricted to the units to be set up in backward districts eligible for concessional finance only: 1. Manufacture of Stainless Steel products:- (a) Domestic Utensils; (b) Wiper Blades made of Stainless Steel Strips; (c) Hospital Equipment Wares and Furniture made of Stainless Steel Sheets and Strips; 2. Cork Stoppers; 3. Wires and Cables (Aluminium); 4. Stainless Steel Watch Straps; 5. Bright Bars; 6. Zinc Oxide.

The manufacture of following items would be allowed in the areas other than backward also:— (a) HDPE Woven Sacks; (b) Pipes for water & gas distribution; (c) High Molecular weight paper like film; (d) Blow Moulded container above 750 ML; (e) Industrial & Engineering Items; 3. Cork Stoppers; 4. Wires and Cables (Aluminium): 5. Stainless Steel/Watch Straps; 6. Bright Bars (subject to capacity assessment of the unit); 7. Zinc Oxide.

Items for which registration is to be restricted to the units to be set up in States where there are no such unit in the line: 1. AAC and ACSR Conductors (subject to capacity assessment of the unit).

Registration and Magnitude of Small Scale Sector: Registration of small-scale units with the State Industries Departments is purely on a voluntary basis. The number of registered small scale units in the country rose to 0.596 million (provisional) in 1982-83 from 0.527 million (Revised) in 1981-82.

The number of items reserved for exclusive manufacture in the small scale sector has gone to 837.

A total of 404 items have been reserved for exclusive purchase from this sector by Government and Public Sector Organisations.

The employment in 1982-83 is estimated at 7.9 million numbers in the small scale sector as compared to 7.5 million numbers in 1981-82.

In 1980-81 the production in the small scale sector was Rs. 280,600 million at current prices. The Sixth Five-Year Plan aims at an 8.7 per cent annual growth in production by the small scale sector. It is expected that by the end of 1984-85, a production level of Rs. 328,730 million would be achieved. The value of exports from this sector is expected to rise to Rs. 18,500/- million and employment to 8.9 million.

State Financial Corporations: (See chapter on 'State Govt. Undertakings' for names and addresses).

Specialised Services: Technical advisory service; workshop and laboratory services; economic services; management consultancy services: marketing advisory service; managerial and technical training service and other general services which are far too expensive to be privately obtained are given free by the Central Small Industries Organisation. (Now called Small Industries Development Organisation—SIDO for short.)

Small Industries Service Institutes: Addresses are as follows:- **Andhra Pradesh:** No. 3-4-812, Swaran Vilas, Barkatpura, Hyderabad-500027; **Assam:** Ind. Estate, P.O. Bamunimaidan, Gauhati 781021; **Bihar:** Prasad Mansion, Indl. Estate, Patna-800013; SISI Indl Estate Kokar Ranchi; SISI Bela Indl. Estate, Pork Ashram, Muzaffarpur; **Gujarat:** Harsiddh Chambers, 4th Floor, Ashram Rd., Ahmedabad-380014; **Haryana:** Bungalow No. 1113, Sector 13, Urban Estate Karnal-132001; **Himachal Pradesh:** SISI Janak Kutee, Chambaghat, Solan; **Jammu & Kashmir:** Karan Nagar.

Srinagar-190001; **Karnataka:** Rajaji Nagar, Bangalore 560044; SISI Bachi Lodge, Club Rd., Hubli-560020; **Kerala:** Kerala Varma College Rd., Trichur 680011; **Madhya Pradesh:** 10, Indl. Estate, Polo Ground, Indore 452003; **Maharashtra:** Kurla Andheri Rd., Saki Naka, Bombay 400072; SISI Sadar, Nagpur; **Orissa:** Kanika Rd., Tulsipur, Cuttack 753008; **Punjab:** Indl. Area, 'B' Ludhiana 141001; **Rajasthan:** Mirza Ismail Rd., Jaipur 302001; **Sikkim:** Tandong, Gangtok; **Tamil Nadu:** 65/1, Grand Southern Trunk Rd., Madras 600032; **Uttar Pradesh:** 107, Indl. Estate, Kalpi Rd., Kanpur 208012; SISI 21/3, Jatnika Bagh, Jeonimandi, Agra-282004; 187-A, Attarsurya, Allahabad 211003; **West Bengal:** 111 & 112, B.T. Rd., Calcutta 700035; **Delhi:** Okhla Indl. Estate, Okhla, New Delhi 110020; **Goa:** Mapari Building, Post Box No. 334, Margao 403601.

Regional Testing Centres: Regional Testing Centre, Opp. Industrial Estate, Okhla, New Delhi-110 020; Regional Testing Centre, 111 & 112, B.T. Road, Calcutta-700 035; Regional Testing Centre, Kurla Andheri Road, Saki Naka, Bombay-400 072; Regional Testing Centre, 65/1, GST Road, Madras-600 032.

Backward Areas: Following is the list of industrially backward districts (247) selected to qualify for concessional finance from the financial institutions.

Andhra Pradesh: Anantapur, Chittoor, Cuddapah Karimnagar, Khammam, Kurnool, Mahabubnagar, Medak, Nalgonda, Nellore, Nizamabad, Ongole, Srikakulam and Warangal; **Assam:** Cachar, Darang, Dibrugarh, Goalpara, Kamrup, Lakhimpur, Mikir Hills, North Cachar Hills, Nowgong, Sibsagar; **Bihar:** Begusarai, Bhagalpur, Bhojpur, Champaran, Darbhanga, Gaya, Khagaria, Monghyr, Muzaffarpur, Nalanda, Nawadah, Palamau, Purnea, Saharsa, Santhal Parganas and Saran; **Gujarat:** Amreli, Banaskantha, Bhavnagar, Broach, Dangs, Junagadh, Kutch, Mehsana, Panchmahals, Sabarkantha and Surendranagar; **Haryana:** Bhiwani, Hissar, Jind, Mohindergarh; **Himachal Pradesh:** Bilaspur, Chamba, Hamirpur, Kangra, Kinnaur, Kulu, Lahaul and Spiti, Mandi, Shimla, Sirmur, Solan, Una; **Jammu & Kashmir:** Anantnag, Badgam, Baramula, Doda, Jammu, Kargil, Kathua, Kupwara, Ladakh, Poonch, Pulwama, Rajori, Srinagar, Udhampur; **Karnataka:** Belgaum, Bidar, Bijapur, Dharwar, Gulbarga, Hassan, Kanara-North, Kanara-South, Mysore, Raichur, Tumkur; **Kerala:** Alleppey, Cannanore, Malapuram, Trichur and Trivandrum; **Madhya Pradesh:** Balaghat, Betul, Bhind, Bilaspur, Chhatarpur, Chhindwara, Damoh, Datia, Dewas, Dhar, Guna, Hosangabad, Jhabua, Khargone, Mandla, Mandsaur, Morena, Narshingpur, Panna, Raigarh, Raipur, Raisen, Rajgarh, Rajnandgaon, Ratlam, Rewa, Sagar, Sehore-New, Seoni, Shajapur, Shivpuri, Sidhi, Surguja, Tikamgarh, Vidisha; **Maharashtra:** Aurangabad, Bhandara, Bhir, Buldhana, Chandrapur, Kolaba, Dhulia, Jalgaon, Nanded, Osmanabad, Parbhani, Ratnagiri, Yeotmal; **Manipur:** Manipur Central, Manipur East, Manipur North, Manipur South, Manipur West and Tengnoupal; **Meghalaya:** East Garo Hills, West Garo Hills and Jaintia Hills; **Nagaland:** Kohima, Mekokchung and Tuensang; **Orissa:** Balasore, Bolangir, Boudh Khonomals (Phulbani), Dhenkanal, Kalahandi, Keonjhar, Koraput and Mayurbhanj; **Punjab:** Bhatinda, Ferozepur, Gurdaspur, Hoshiarpur and Sangrur; **Rajasthan:** Alwar, Banswara, Barmer, Bhilwara, Churu, Duhgarpur, Jaisalmer, Jalore, Jhalawar, Jhunjhunu, Jodhpur, Nagaur, Sikar, Sirohi Tonk and Udaipur; **Sikkim:** Gangtok, Gyalshing, Mangan and Namchi; **Tamil Nadu:** Dharampuri, Kanyakumari, Madurai, North Arcot, Pudukottai, Ramanathapuram, South Arcot, Thanjavur, and Tiruchirapalli; **Tripura:** All three districts of Tripura North, Tripura South and Tripura West; **Uttasr Pradesh:** Almora, Azamgarh, Badaun, Bahraich, Ballia, Banda, Barabanki, Basti, Bulandshahr, Chamoli, Deoria, Dehradhun, Etah, Etawah, Faizabad, Farrukhabad, Fatehpur, Gazipur, Gonda, Hamirpur, Hardoi, Jalaun, Jaunpur, Jhansi, Kanpur Dehat, Mainpuri, Mathura, Moradabad, Nainital, Pauri Garhwal, Pithoragarh, Philibhit, Pratapgarh, Rae Bareilly, Rampur, Shahjahanpur, Sitapur, Sultanpur, Tehri Garhwal, Unao and Uttar Kashi; **West Bengal:** Bankura, Birbhum, Burdwan, Cooch Behar, Darjeeling, Hooghly, Jalpaiguri, Malda, Midnapur, Murshidabad, Nadia, Purulia and West Dinajpur; **Andaman and Nicobar Islands:** Andaman Islands & Nicobar Islands; **Arunachal Pradesh:** Kameng, Siang, Subansiri and Tirap; **Dadra and Nagar Haveli:** Dadra and Nagar Haveli; **Goa, Daman and Diu:** Goa, Daman and Diu; **Lakshadweep:** Lakshadweep; **Mizoram:** Aizawl and Lunglei; **Pondicherry:** Pondicherry.

AUTOMOBILES

THE progress of the automobile industry is an index of engineering skill. Though the history of the industry can be traced back to the discovery of the wheel, the real revolution in mechanical development is only 100 years old.

The world's first motor-cycle and motor boat was manufactured in 1882 by Gottlieb Daimler, while the first successful gasoline engined vehicle was designed, manufactured and driven in 1885 by Karl Benz of Mannheim. The next revolution came in 1903 with the introduction, by Henry Ford, of the assembly-line system meant for mass production of automobiles which was utilised only after World War I.

The development of the automobile industry in India centres round four phases. Step I was taken in importing motor cars, the first car being imported in 1898. The second phase was in the late 20s of the present century when General Motors India Ltd. set up a plant in 1928 to assemble trucks and cars. In 1930-31, Ford Motor Co. of India Ltd., established its assembly units in Bombay, Calcutta and Madras. These companies imported components and parts in CKD condition (completely knocked down condition) and assemble them in India. At this stage the pioneer engineer, M. Visveswaraya, pleaded for support to the plan for the indigenous manufacture of cars which the British government denied.

The third phase started with the successful culmination of Walchand Hirachand's efforts after World War II, in collaboration with Chrysler, in setting up Premier Automobiles in Bombay in 1944. Earlier, in 1942, G. D. Birla had established Hindustan Motors in Calcutta in collaboration with the British Motor Corporation.

Great strides have been made after independence. The turning point came in 1953 when on the recommendations of the Tariff Commission, the Government of India granted protection to the indigenous industries. Thus the ancillary industry, which was non-existent till then. gained momentum. There was a noticeable increase in the manufacture of vehicles the production being confined to trucks and buses on a 50 per cent basis and commercial vehicles allocated 10.5 per cent. The maximum growth was recorded in two-wheelers, especially mopeds.

In 1950 the total production of cars with at least one or two locally-made components were a little over 2,100. Today almost all auto parts and components required by the main manufacturers—about 60 per cent—are met by the local ancillary industry, 75 per cent of which are in the small-scale sector. With the steady availability of the raw materials like iron, steel, copper, aluminium and zinc, the process of indigenisation had been achieved within a short period of 15 years—between 1954 and 1968. This was the fourth and final stage when India exported cars and jeeps to 12 countries and commercial vehicles to over 25 countries.

LOCATION OF THE INDUSTRY: Of the 41 manufacturers of automobiles, including tractors and two-cum-three wheelers, 12 are in Maharashtra, 5 in New Delhi, 6 in Tamil Nadu, 3 in Karnataka, 2 in Andhra Pradesh, 5 in Haryana, 2 in Gujarat, 3 in West Bengal, 2 in

Uttar Pradesh with Rajasthan, Punjab and Bihar having one each. The location of the 168 automobile ancillary manufacturing units is: 63 in Maharashtra, 37 in Tamil Nadu, 25 in Delhi, 10 in West Bengal, 9 in Haryana, 7 in Gujarat, 7 in Karnataka, 5 in Punjab, 3 in Andhra Pradesh, 1 in Madhya Pradesh and 1 in Rajasthan.

Licensed Capacity at the end of 1980 was 136,950 commercial vehicles, 129,400 passenger cars, 15,000 jeeps and 1,579,378 other vehicles.

Defence Vehicles: The Defence establishments manufacture *Shaktiman* trucks through an agreement with M.A.N. of West Germany and *Nissan* 1-ton trucks and *Nissan* (Jonga) jeep type vehicles. The vehicle factory at Jabalpur was established in 1969 for the manufacture of 6,000 *Shaktiman* 3-tonne trucks and 7,200 *Nissan* trucks and petrol vehicles per annum. From the information available the current rate of production of *Nissan* trucks and *Nissan* petrol vehicles is 200 nos. and 100 nos. per month, respectively.

RANKING IN THE WORLD MARKET

World Production 1980

Countries	Passenger Cars	Trucks & Buses	Total
Japan	7,038,108	4,004,776	11,042,884
United States	6,375,506	1,634,335	8,009,841
West Germany	3,520,934	357,481	3,878,415
France	2,938,581	439,852	3,378,433
Russia	1,330,000	867,000	2,197,000
Italy	1,445,221	166,635	1,611,856
Canada	846,777	527,552	1,374,329
United Kingdom	923,744	389,170	1,312,914
Spain	1,028,813	152,846	1,181,659
Brazil	600,706	564,501	1,165,207
Mexico	303,056	186,950	490,006
Poland	351,359	66,475	417,834
Australia	316,966	47,143	364,109
Sweden	235,320	63,080	298,400
Argentina	218,516	63,153	281,669
Yugoslavia	240,762	33,391	274,153
Czechoslovakia	183,746	49,366	233,112
East Germany	176,400	37,200	213,600
Rumania	81,600	49,992	131,592
India	30,538	82,788	113,326
Netherlands	80,779	15,656	96,435
Austria	7,528	8,533	16,061
Total	28,274,960	9,807,875	38,082,835

PRODUCTION IN INDIA

Production of commercial vehicles increased from 39,608 in 1972-73 to 87,543 in 1982-83. Jeeps increased from 12,998 to 20,234. Motorised two-wheelers consisting of scooters, motorcycles and mopeds witnessed a spectacular increase from 259,373 to 656,822. Production of agricultural tractors has also been impressive from 18,364 in 1972-73 to 62,488 in 1982-83. Passenger cars production in 1982-83 was 43,542 against 36,990 in 1972-73.

Production In India

	1980	1981	1982
Passenger cars	30,538	42,106	43,542
Jeeps	15,068	17,029	20,234
Commercial vehicles	68,311	89,752	87,543
Motor-cycles	101,578	110,039	128,817
Scooters	209,956	203,602	251,909
Three-wheelers	26,519	24,833	30,585
Mopeds	106,073	185,424	212,562
Tractors	67,105	82,516	62,488

Ancillary Products: There are more than 1,800 units in the recognised automobile ancillary sector producing all spare parts, accessories and components required for the assembly of complete vehicles. The production of various categories of spare parts and components during 1981-82 in this sector was of the order of Rs. 6,480 million, which reflects a 22 per cent growth over 1980-81.

In the export field, the automobile ancillary industry has achieved great progress. The total exports for 1981-82 and 1982-83 were placed at Rs. 560 million and Rs. 540 million respectively. The EEPC (Engineering Export Promotion Council) fixed an export target of Rs. 650 million of auto-ancillaries for 1983-84.

EXPORTS

The combined vehicle and parts exports today constitute the largest single block among the country's engineering goods exports, about Rs. 1,400 million in 1982-83. Some of the auto-ancillary products made in India find their way to even the more industrially advanced countries like those covered by the EEC.

GENERAL: Almost all vehicles produced in the country are 99 per cent indigenous.

Research, Development and Training: Research and testing facilities for automobiles and automobile ancillaries are available at the *Central Mechanical Engineering Research Institute,* Durgapur, the *Indian Institute of Science,* Bangalore 560012, the *National Test House,* Alipore, and the *National Metallurgical Laboratory,* Jamshedpur. *The Automotive Research Association of India,* P.B. No. 832, Deccan Gymkhana P.O. Pune 411004. The ARAI is an Industrial Research Association with the Ministry of Industry, Govt. of India, set up by the Indian Automotive Industry. It provides test facilities for components and complete assembly of engines and vehicles. Presently a U.N.D.P. project is being established with the main object of assisting the small and medium scale units in their design, development and research activities.

Automobile Manufacturers (See classified list of 'Trades & Professions').

New Projects: A number of new projects, most of them with foreign collaborations are being developed (some are in the elementary/exploratory stage) in the automobile industry.

Maruti Udyog Limited, a public sector undertaking has started production of small cars and pick-up vans. The company has entered into collaboration with Suzuki Motor Company of Japan. Prime Minister Indira Gandhi released the first car at an inaugural ceremony at Maruti's Gurgaon factory on December 14, 1983. By 1985, the production of Maruti cars would be 19,000 to 20,000 and of pick-up vans nearly 2,000. By 1988-89, the company is expected to produce 0.1 million cars per year.

Similarly, the two main producers of cars Premier Automobiles and Hindustan Motors have gone in for collaboration with Fiat of Italy and Vauxhall respectively.

Besides many firms have entered into foreign collaborations for producing scooters and motorcycles.

Tractor Industry: Agricultural tractors have played an important role in increasing the agricultural production in the country. There are 14 licensed units out of which 13 are progressively raising their production and the remaining unit is likely to go into production within a year or so.

During 1980, the production of tractors was expected at 67,105 reflecting considerable increase over the 1979 level of 60,190. The production of tractors in 1981 indicated an upward trend at 82,516. The demand for tractors is estimated at 85,000 by 1983-84, and no capacity gap is envisaged in this industry in the near future.

The industry is facing severe pressures because of the critical supply position in respect of major inputs like power, pig iron, coal, furnace oil etc. Government has allowed the imports of certain critical items at reduced rate of customs duty to ensure the attainment of targeted production level.

Besides meeting domestic demand, the tractor industry is exporting annually around 1,500-2,000 tractors to African and South East Asian countries, Nepal and Afghanistan.

Production of Diesel Engines & Earth-moving Equipment

Production in nos.

		1979	1980
Excavators/shovels	..	207	310
Crawler tractors	..	361	500
Rear dumpers	..	469	250
Motorised scrapers	..	61	75
Motor graders	..	6	20
Wheeler dozzers	..	—	—
Diesel engines 0-20 HP		130,580	140,000
Diesel engines 20-100 HP			
Diesel engines 100-800 HP	..	5,187	5,500
Power tillers	..	2,488	2,000

Tractor Manufacturers

(See classified list of 'Trades and Professions').

Associations: 1. *Association of Indian Automobile Manufacturers,* Army & Navy Bldg., M. Gandhi Rd., Bombay 400023. 2. *All India Automobile & Ancillary Industries Association,* 80, A. Besant Rd., Bombay 400018. 3. *Automotive Research Association of India,* P. Box 832, Deccan Gymkhana P.O., Pune 411004

Publications: (1) *Automobile Ancillaries and Accessories* (Bi-monthly), 20, Noble Chambers, Parsee Bazar St., Bombay 400001. (2) *Automobile News* (Monthly), Arun Chambers, J. Dadajee Rd., Bombay 400034. (3) *Autoguide* (Monthly), 47, Shardhanand Marg, Delhi 110006. (4) *Auto Spark* (Monthly), Vijay Nivas, Juhu Lane, Bombay 400058. (5) *Mobile* (Monthly), 11B, Ramchandra Iyer St., Madras 600017. (6) *Automotive Abstracts* (Monthly), P. Box 832, Deccan Gymkhana P.O., Pune 411004.

PETROLEUM

THOUGH the petroleum industry is of very recent origin, the history of oil production goes back to 1867 when oil was first struck at Makum in Assam. In 1890 oil was found at Borbhil (now called Digboi) However, as an industry it was non-existent during the British Raj whose exploitation, mainly limited to Assam, was meant for cheap extraction. During those days the main investors were the Burma Oil Co. and the Assam Railways and Trading Co. No seismic surveys were undertaken and it was generally believed that India did not possess oil or natural gas deposits.

This myth was exploded by Russian experts after independence according to whom 1.4 million sq. km. or about 42 per cent of total land area in India consists of oil yielding sedimentary rocks. Off-shore sedimentary basin exists up to a water depth of 200 metres with an area of 380,000 sq. km. Of the total geological oil reserves about 77 per cent are estimated to be off-shore, which are yet to be explored. Presently, one of the best prospects is in the eastern region dubbed "Calcutta High" According to N. A. Eremko, Head of Moscow Instt. of Petroleum, "Calcutta is floating on a sea of oil." Besides Assam, West Bengal and the Bay of Bengal, the other potential areas are the basins of the Cauvery, the Krishna, the Godavari and the Mahanadi.

The progress in the petroleum industry is a gift of foresight of Jawaharlal Nehru together with the able stewardship of K. D. Malaviya. To explore and produce crude in the north-east region, Oil India was set up in 1960 in collaboration with Burmah Oil Co. In 1961 Oil India was converted into a joint venture. The Oil and Natural Gas Commission was set up as a statutory body, earlier in 1956, in overall charge of exploration and production of oil.

The first well drilled in post-independent India was at Jwalamukhi in 1958 and gas was struck in small quantities. The first oil well drilled was in Cambay, Gujarat, also in 1958. Thereafter followed a chain of discoveries: Ankleshwar (1960), Kalol (1961), Lakwa (1964), all in Gujarat and Geleki (1968) in Assam.

In 1963, after a feasibility survey the Russians declared Bombay High to contain vast oil structure. With the arrival of the mobile drilling platform 'Sagar Samrat' from Japan in 1973, off-shore drilling took a new turn. Oil was struck in Bombay High in 1973 and commercial production commenced from 1976. Today the Bombay High production has touched the 11 million-tonne-level with a daily production mark of 224,000 barrels

With the Arab-Israeli war raging in the 70s and Arab oil-producing countries raising the price of crude oil, India faced tremendous pressure on her foreign exchange reserve. To meet the situation oil exploration in the Assam-Arakan area was stepped up from 1978 which again met with a setback during the current Assam agitation. The Sixth Five-Year Plan lays specific stress on the increase in petroleum products so as to meet rising domestic demand as well as relieve the pressure on foreign exchange reserves by cutting on imports.

PRODUCTION: ONGC, Oil India Ltd. (OIL) and Assam Oil Company Ltd. (AOC) are the only three agencies engaged in the production of crude oil. Currently the production in Gujarat which is exclusively by ONGC is three to four million tonnes and in the offshore area it is about 4.9 million tonnes. The production in Assam is about 4.8 million tonnes of which share of OIL is about 3 million tonnes.

During 1981-82 about 3,851 million cubic metres of associated & non-associated gas were supplied to various customers in Gujarat & Assam. Associated gas from Bombay High was 1,345 million cubic metres.

The Sixth Plan target for crude oil production was revised during the mid-term appraisal from 21.60 million tonnes to 27.52 million tonnes. Similarly the target for production of petroleum products was revised from a level of 35.85 million tonnes to 39.26 million tonnes.

Crude Demand: The demand tor petroleum products in 1984-85 is estimated at 45.50 million tonnes. The demand for crude oil expressed as refinery crude throughput in 1981-82 is reckoned a little over 30 million tonnes per annum and production of crude oil a little over 16 million tonnes as against overall demand of over 32 million tonnes.

IMPORT BILL: In 1981-82, 20.2 million tonnes of crude and petroleum products, valued at Rs. 51,890 million were imported. Of this expenditure, Rs. 37,360 million were accounted for crude oil imports. In 1982-83 the total requirement of imported crude oil is estimated at about 17.7 million tonnes and of petroleum products at around 5.5 million tonnes. The gross foreign exchange requirement for these imports is likely to be about Rs. 59,500 million. However, the net import of crude oil and petroleum products would be (approx.) 11.8 million tonnes and 4.6 million tonnes respectively, approximately valued at about Rs. 45,000 million. The requirement of imports during 1983-84 is estimated to be about 14.8 million tonnes of crude oil and 5.90 million tonnes of petroleum products for which the total foreign exchange requirement is likely to be Rs. 54,500 million (gross).

Price of Imported Crude: The price of crude fixed by OPEC has been showing an easy trend of late. In November 1983 it stood at £28.60 (per barrel Saudi Arabia ras/tanura. The average price for 1982 was $33.47.

Pipelines: A crude pipeline intended for the pumping ot imported and Bombay High crudes from Salaya in the Gulf of Kutch to Mathura refinery a distance of about 1,220 kms. has been completed and will be commissioned shortly. A branch from this pipeline to Koyali refinery to supply Bombay High as well as imported crude to its expansion units was commissioned on 5th September 1978

Among the new schemes of IOC is the Mathura-Delhi-Ambala-Jullundur product pipeline covering a distance of 532 kms. The installed capacity of the pipeline is 3.4 million tonnes per annum. The Mathura-Delhi section was commissioned in April 1982, Delhi-Ambala section in August 1982 and the Ambala-Jullundur section in December 1982.

OIL COMPANIES: There are four oil companies engaged in the refining and marketing of petroleum products. These are Indian Oil Corporation Ltd. (IOC), Bharat Petroleum Corpn. Ltd., Hindustan Petroleum Corporation Ltd. (HPC) and Assam Oil Company Ltd. (AOC). Of these only the last still remains in the private sector. Full ownership of Esso interests in HPC were acquired by Government in October 1976, Burmah Shell interests in India were fully acquired in January, 1976, under the name of Bharat Refineries Ltd. (later renamed Bharat Petroleum Corpn. Ltd.). Similarly, Caltex interests were fully acquired by the Government in December, 1976, under the name of Caltex Oil Refining (India) Ltd. till it was merged into Hindustan Petroleum Corpn. Ltd. in May, 1978.

In addition to these companies, there are two public sector companies (each with a minority foreign collaboration)—Cochin Refineries Ltd. (CRL) and Madras Refineries Ltd. (MRL) which are engaged only in the refining of petroleum products and one public sector company, Indo-Burma Petroleum Company Ltd. (IBP) which is engaged in the marketing of petroleum products.

Refineries in Operation: There are twelve refineries in operation.

Name of the company	Location	Installed capacity M.M.T.	Crude run 1981-82
Indian Oil Corporation Ltd.	Gauhati	0.85	746
Indian Oil Corporation Ltd.	Barauni	3.30	3,031
Indian Oil Corporation Ltd.	Koyali	7.30	7,042
Indian Oil Corporation Ltd.	Haldia	2.50	2.277
Indian Oil Corporation Ltd.	Mathura	6.00	520
Indian Oil Corporation Ltd. (Assam Oil Division)	Digboi	0.50	496
Madras Refineries Ltd	Madras	2.80	4,999
Cochin Refineries Ltd.	Cochin	3.30	3,483
Bharat Petroleum Corporation Ltd.	Bombay	5.25	1,178
Hindustan Petroleum Corporation Ltd.	Bombay	3.50	3,120
Hindustan Petroleum Corporation Ltd.	Vizag	1.50	2,801
Bongaigaon Refinery & Petro-chemicals Ltd.	Bongaigaon	1.00	453
Total		37.80	30,146

OIL AND NATURAL GAS COMMISSION (Tel Bhavan, Dehra Dun 248001, U.P.).

The Oil & Natural Gas Commission is a major Public Sector undertaking engaged in exploration for and exploitation of crude oil and natural gas resources in various sedimentary basins of the country both onshore and offshore. Its operations however, do not cover certain areas in Assam and Arunachal Pradesh in the East and sizeable areas in Rajasthan and Mahanadi offshore. These areas are being explored by two other public undertakings, Oil India Ltd. and Assam Oil Co. ONGC has also undertaken oil exploration in some foreign countries as well.

India has 1.4 million sq.kms. of sedimentary area onland, 0.4 million sq. kms. offshore upto 200 mts. water depth and another 0.4 million sq.kms. in the continental slope. ONGC has been operating in onshore areas since 1956. The first oil strike by ONGC occurred in the first well drilled in Cambay, Gujarat in 1958. This was followed by discovery of oil in Ankleshwar in 1960, Kalol in 1961, Sanand in 1962, Nawagam in 1963 and North Kadi in 1967 and a series of other discoveries in subsequent years. In Assam, ONGC discovered its first oil field at Rudrasagar in 1960 followed by Lakwa in 1964 and other fields thereafter.

ONGC ventured into offshore exploration in 1963 by carrying out seismic surveys in Gulf of Cambay which led to the discovery of Aliabet structure at the mouth of Narmada river. A well was drilled on the structure during 1970 with oil shows. In 1964, systematic seismic surveys were undertaken by a Russian ship "Akademic Arkhangeleisky" in the Western and Eastern Continental shelf and continued till 1967. A number of promising structures including Bombay High were delineated. ONGC started drilling at this Bombay High structure by its own jack-up drilling unit "Sagar Samrat" in 1974 and struck oil there. Since then it has discovered a number of oil and gas bearing structures stretching from the mouth of Gulf of Cambay to offshore Ratnagiri coast. On the eastern coast, oil and gas was discovered in offshore Godavari in 1980 and gas off Portonovo in 1980. ONGC has also had success in the discovery of oil in Palk Strait (1981 and gas in Andamans (1980). Thus both the east coast and west coast are proved petroliferous.

Exploration: *Geological surveys:* Surveys by 10 geological parties in 1981-82 carried out mapping of 5,667 sq. kms. area in different parts of the country, other than the Western Region which has already been mapped in detail.

Two shallow drilling parties operated in Andhra Pradesh and drilled 985 metres for obtaining supplementary data for geological mapping.

Till March 1982, ONGC had put in 378 geological parties and mapped 183,628 sq. km. area.

Geophysical surveys—Onland: A total of 6,485 station measurements of Gravity-cum-Magnetic data were done by field parties during 1981-82 in various parts of the country except the Western Region.

The use of modern techniques like Vibroseis and Common Depth Point (CDP) has greatly improved the quality of seismic data. During 1981-82, 28 seismic field parties were engaged in onland surveys and carried out 2,521 line kms. of CDP surveys. Till March 1982, ONGC had put in different sedimentary onland basins and carried out 128,945 line kms. of seismic surveys. The ONGC's seismic vessel *Anweshak*, along with some vessels on contract, carried out surveys in the Andaman Shelf, Lakshadweep, Godavari, Palk Bay and Bombay Offshore south of Diu, covering 8,917 line kms. during 1981-82. The total survey carried out by ONGC *Anweshak* and vessels on contract, up to March 1982 are 93,591 and 82,632 line kms. respectively.

Exploratory Drilling: 15 new structures—11 onland and 4 offshore were taken up for drilling. Of these, 10 gave indications of hydrocarbon presence. The hydrocarbon find in Krishna-Godavari basin and confirmation of commercial existence of gas in Tripura added a new dimension to the oil scenario in the country.

Drilling in 61 structures continued and a total meterage of exploratory drilling at 151,810 was accomplished during the year 1981-82 against a target of 133,799 metres, an achievement of 113.5 per cent. The exploratory drilling done during the year was higher by 29 per cent which was 117,658 metres in this category of drilling. In the previous year up to the end of 1981-82 an aggregate of 2.37 million metres of exploratory drilling has been completed.

As a result of exploratory drilling during 1981-82 109 MMT of geological reserves of oil and gas were added.

During the year 58 wells were completed with 24 showing indications of hydrocarbons.

Development Drilling: 170,006 metres of development drilling was accomplished during the year. Up to the end of 1981-82 the total meterage of drilling in this category has been 1.74 million metres. In all the Commission has completed up to the end of 1981-82, 925 development wells of which 86 wells were done in 1981-82 against 51 such wells in 1980-81.

Production: *Crude Oil:* Against production target of 13.26 MMT for 1981-82 the actual has been 13.18 MMT. At this level the production during this year was 44 per cent higher than that of the previous year. This increase was due to increased production from Bombay High and normalisation of activities in Eastern Region which had been a disturbed area almost throughout 1980-81.

The domestic refineries were unable to lift the entire quantity of Bombay High Crude because of its chemical composition, and their own technical problems. As such only 0.86 MMT of Bombay High Crude was exported during the year. In addition about 0.5 MMT of crude was floating in VLCCs, Kanchenjunga and Koyali at the end of 1981-82 awaiting export. For 1982-83 the Oil Coordination Committee which controls such transactions had drawn up a plan to export about 3 MMT of Bombay High Crude.

Liquified Petroleum Gas (LPG): ONGC installed an LPG plant at Uran in Maharashtra to extract LPG from Bombay High Gas. This Plant has started commercial production during the year 1981-82 and a total of 73,055 MT was produced against a target of 75,334 an achievement of 96.97 per cent. Plans are afoot for setting up such plants at Ankleshwar and in the Eastern Region, so that the benefits of clean and cheap fuel for domestic use can be further extended. These schemes will carry the added benefit of reducing quantity of flared gas.

Feasibility studies have also been made for installation of a LPG plant at Hazira, Gujarat to extract LPG from offshore gas and the proposal is being processed by the Government of India.

Overseas Operations: ONGC continues its efforts to secure exploratory concessional drilling contracts and consultancy jobs abroad. The drilling contract between ONGC and Iraqui National Oil Company for drilling in Iraq was completed.

The Government of India leased out Saurashtra II Offshore block to M/s. Chevron Oil Company of United States on participation basis with ONGC acting as an agency for carrying out the work. Chevron started geophysical survey in the area during 1982-83.

Research & Development: ONGC has presently three Institutes viz. **The Keshav Dev Malaviya Institute of Petroleum Exploration, The Institute of Drilling Technology** both at Dehradun and **The Institute of Reservoir Studies** at Ahmedabad. These Institutes carry out applied research work, and seek unceasing continuous interaction between the operational projects and themselves at all stages beginning with planning to accomplishment. In this role they associate with various universities and other specialised institutions.

In KDMIPE 230 projects were undertaken besides 33 S & T projects. The Institute of Reservoir Studies, Ahmedabad, besides developing models for secondary and tertiary recoveries also helped to finalise the development plans for Santhal field in North Gujarat. During 1981-82 it completed 63 projects pertaining to methods of reducing water production, stimulation plans, secondary recoveries, EOR potentials etc.

The Institute of Drilling Technology at Dehradun is engaged in development of and improving the technology for smooth and safe drilling operations.

Chairman: Col. S. P. Wahi.

INDIAN OIL CORPORATION LTD.: (Regd. Office: 254-C, Dr. Annie Besant Rd., Prabhadevi, Bombay 400025). The Indian Oil Corporation comprises three divisions viz. Refineries and Pipelines Division, Marketing Division and Assam Oil Division. It has a Research & Development Centre at Faridabad and its fully owned subsidiary—Indian Oil Blending Ltd. has two lube blending plants in Bombay and Calcutta and a grease manufacturing plant at Bombay.

Refineries & Pipelines Division (Indianoil Bhavan, Janpath, New Delhi 110001) builds and manages oil refineries of the Corpn. At present IOC has six refineries at Gauhati and Digboi (Assam), Barauni (Bihar), Koyali (Gujarat), Haldia (West Bengal), and Mathura (Uttar Pradesh).

This Division also lays oil pipelines and manages Gauhati-Siliguri, Haldia-Barauni-Kanpur, Haldia, Mourigram, Rajbandh, Koyali-Ahmedabad, Mathura-Delhi-Ambala-Jullundur, Digboi-Tinsukia, and Salaya-Koyali-Mathura pipelines.

Indian Oil Corporation refineries in 1982-83 processed 17.83 million tonnes which is about 54 per cent of the total crude of 33.16 million tonnes processed in the country.

Marketing Division:, This division with its headquarters in Bombay handles storage and distribution of petroleum products. In 1982-83 it sold 121.3 million tonnes of products representing a market participation of 61.5 per cent. As on March 31, 1983 it had 4,813 petrol/diesel pumps, 2,642 SKO/LDO dealers, 294 multi-purpose distribution centres and 19 Taluka kerosene depots. It had 737 distributors marketing its cooking gas 'Indane'.

IOC has marketing and distribution network covered through its four regional offices at Bombay, Calcutta, Delhi and Madras and 31 divisional offices.

Assam Oil Division: Assam Oil Division of Indian Oil Corporation was formed on October 14, 1981 and the refining and marketing activities of the erstwhile Assam Oil Company Ltd. and the Burmah Oil Company (India Trading) Ltd. have since been handled by Indian Oil Corporation.

Research & Development Centre: IOC has its own Research & Development Centre at Faridabad near New Delhi. Various engines, rigs, analytical instruments have been imported and commissioned for evaluation and testing of lubricants and other petroleum products. The Centre gives formulations to Indian Oil Blending Limited, a subsidiary of Indian Oil Corporation, for blending all lubricants, specialities etc. Some meligenous lubricants under the brand name 'Servo' have been developed by the Centre for defence, railways, power houses and steel plants etc. The Centre has also developed 'Servoprime', a high grade turbine oil from indigenous base stocks and the same has been introduced as initial charge in turbo-generator sets at various power houses.

The Centre has obtained international approvals for some of IOC lubricants and is working on getting approval for other grades. With a view to conserving kerosene, the Centre has designed and developed a high efficiency wick stove (Nutan) as also an LPG burner with 70 per cent thermal efficiency.

INDIAN OIL BLENDING LTD.: A fully-owned subsidiary of Indian Oil Corporation Ltd., has two lube blending plants in Bombay and Calcutta and a grease manufacturing plant in Bombay.

INDO-BURMA PETROLEUM CO. LTD.: (Regd. Off.: Gillander House, N. Subhas Rd., Calcutta 700 001). It became a subsidiary of the IOC on 12th January, 1970, and the controlling interest was acquired by the President of India from IOC on 16th September 1972. The major business of the company is marketing of petrol and petroleum products.

The company has also diversified into manufacture of electronic equipments, bottling machinery, freeze driers, space simulation chambers, high vacuum equipment, liquid nitrogen containers, slurry type of industrial explosives. In 1972 the Company took over the management of Balmer Lawrie Group of Companies. Balmer Lawrie and its associates have established a plant in Dubai for manufacture of barrels and cans, and propose to build freight containers in Cochin and Howrah. The Group is also implementing civil construction jobs abroad as well as turn-key projects. The Group's other activities, like civil construction, structural fabrication, manufacture of barrels and grease and electrical equipment like switchgears and motors are being expanded gradually.

International Trade: Indian Oil is the canalising agency for imports and exports of crude and petroleum products on behalf of the entire oil industry. Considering the importance and the financial magnitude a separate International Trade Department was formed in October, 1982 viz. Delhi as Headquarters. During 1982-83 13.23 million tonnes of crude valued at Rs. 30,620 million were imported as against 11.51 million tonnes of crude valued at Rs. 27,450 million. In addition, 5.41 million tonnes of petroleum products valued at Rs. 1,619 million and 0.11 million tonnes of lubricants at an approximate value of Rs. 540 million were imported during the year. In addition, 3.74 million tonnes of crude oil valued at Rs. 8,520 million was imported by Madras Refineries Ltd. and Hindustan Petroleum Corporation. The total import during 1982-83 amounted to Rs. 55,870 million as against Rs. 50,290 million in the previous year.

During 1982-83 the Corporation also arranged for export of 4.35 million tonnes of Bombay high crude valued at Rs. 10,210 million.

BHARAT PETROLEUM CORPORATION LIMITED: (Regd. Off.: Bharat Bhavan, Ballard Estate, Bombay 400038). A 100% public sector enterprise, Bharat Petroleum has acquired complete ownership of Burmah-Shell's interests in India including the second largest refinery (5.25 million tonnes per annum) and a nationwide marketing organisation.

The Refinery has made substantial technological improvement over the years. In 1981-82 ten different crudes (including Maya from Mexico for the first time) were processed. The refinery was also the first to process offshore Bombay High crude in 1976, and the share of Bombay High crude in the crude mix has risen from 73% (3.54 million tonnes) in 1979-80 to 81% (4.05 million tonnes) in 1981-82.

On the marketing side, the total sales during the year 1981-82 amounted to 5.32 million tonnes compared to 5.29 million tonnes in 1980-81, while the turnover increased to Rs. 15,154.2 million against Rs. 12,141.3 million in the previous year.

At present, BPCL has 5 port installations, 2 lubricating oil blending plants and 59 bulk depots with a total tankage of 0.66 million kls. besides a countrywide network of 3,317 retail outlets.

Major Projects: (a) *Additional Secondary Processing Facilities:* This project involves debottlenecking of primary crude distillation unit to raise the crude distilling capacity to 6 million TPA for any combination of Bombay High and Middle East crudes and for providing matching secondary processing facilities with the necessary auxiliary facilities. (b) *Aromatics from Bombay High Naphtha*: The original proposal to manufacture 61,000 TPA of benzene and 16,000 TPA of toluene from 3 million TPA of Bombay High crude has been revised to manufacture 98,300 TPA of benzene and 17,600 TPA of toluene from 4 million tonnes of Bombay High crude on the basis of indigenous process design. (c) *Sulphur Recovery Project:* It is proposed to instal a plant at the refinery to recover 5,700 TPA of sulphur from refinery gases with a view to improving environment.

Besides these 3 projects, the Corporation has submitted for Government's approval a Feasibility Report on putting up of facilities for dispensing Aviation Fuel by all the Oil Companies through a Hydrant System at Palam, Delhi. This project is expected to be completed by October 1984 and is estimated to cost Rs. 17.42 crores (including a foreign exchange component of Rs. 3.63 crores), the Corporation's share of the cost being Rs. 13.94 crores.

HINDUSTAN PETROLEUM CORPORATION LTD. became fully Indian-owned on October 1, 1976, when the ESSO company's share was bought off by paying 3.1 million U.S. dollars for its 26 per cent share. Subsequently, Caltex Oil Refining (India) Ltd. merged with Hindustan Petroleum in May, 1978. The Corporation's main operations are petroleum refining, manufacture of lubricating oil base stocks and marketing of petroleum products. The Corporation has over 6,000 employees in its four operations.

HPCL have two refineries - one at Bombay (Lube Refinery) with a capacity of 3.5 million tonnes per year and another at Visakhapatnam (Visakh Refinery) with a capacity of 1.5 million tonnes per year.

The total sales of petroleum products during the year under review was at 5.683 million tonnes showing an increase of 91,000 tonnes over the previous year's sales of 5.592 million tonnes.

The sales turnover during the year under review was of the order of Rs. 19,781.3 million against Rs. 15,738.3 million, during the previous year an increase of 25 per cent over the previous year sales.

The gross profit before taxes, depreciation, interest and prior period adjustments amounted to an all time high of Rs. 593.9 million as against Rs. 521.1 million during the previous year due to increased interest and depreciation charges during 1981-82.

At present, work is in progress, for the expansion of the Lube Refinery at Bombay and the Visakh Refinery and on the construction of Bombay-Pune pipeline and Sulphur Recovery project. The new LPG Bottling Plant for LPG at Bombay, Bangalore and Nagpur have been commissioned.

Chairman & Mg. Director, K. Krishnamurti.

BONGAIGAON REFINERY AND PETROCHEMICALS LTD. (BRPL): All the units of the one million tonne refinery at Bongaigaon in Assam have been completed and commercial production has been started. The total approved cost estimate of the refinery complex is Rs. 1,062.9 million, including the captive power plant.

MATHURA (UTTAR PRADESH): With a capacity of 6 million tonnes this refinery was commissioned and put on trial run in January, 1982.

COCHIN REFINERIES LTD.: (P. Bag 2, Ambalamugal 682302, Ernakulam Dist., Kerala). This is a participatory refinery project in the public sector, the principal collaborators with the Government being Messrs. Phillips Petroleum Co., U.S.A. It was commissioned on 19th September, 1966

The Refinery was originally designed to produce annually 2.5 million tonnes of petroleum products and the capacity has now been expanded to enable it to process 70,000 barrels of crude per day or 3.3 million tonnes annually.

A secondary processing scheme and capacity expansion to 4.5 million tonnes per annum involving a total capital outlay of about Rs. 1,326 million have been taken up for implementation. These projects are expected to be completed by March, 1984.

Chairman: P. K. J. Menon (I.A.S., Retd.); *Managing Director:* C. Abraham.

MADRAS REFINERIES LTD.: (Regd. Office and Refinery: Manali, Madras 600 068). The Refinery was incorporated in December, 1965. After completion of process engineering design by Bechtel Corporation, U.S.A., the engineering design and construction contract was awarded to Snam Progetti, Italy. The construction was started from January, 1967 and completed by March, 1969. The plant was commissioned in June, 1969. A joint venture of the Government of India (major share-holder), National Iranian Oil Company, Amoco India Incorporated, U.S.A., the Madras Refinery is designed to process 2.5 million tonnes per annum of Darius Crude Oil from Persian Gulf, Iran (50,000 barrels per calendar day and subsequently debottlenecked to process 2.8 million tonnes/year of crude). Products: LPG, motor gasoline, naphtha, superior kerosene, jet fuel, high speed diesel oil, light diesel oil, lube base stocks, furnace oil, asphalt and sulphur.

Capacity: 2.8 million tonnes per annum.

Production: Worth Rs. 7,358.06 million.

Processed: 2.801 million tonnes.

No. of Employees: 521 as on 31.3.1982.

Capital: Rs. 128.7 million.

The Refinery has currently a project to expand its refining capacity from 2.8 million tonnes to 2.56 million tonnes and to produce 20,000 tonnes of Paraffin wax of different grades per annum.

General Managers: A.V. Krishnan (Refinery); G. Raghavendran (Project); N. J. Mathew (Finance).

Production of Crude Oil

('000 tonnes)

	1970-71	1975-76	1980-81	1981-82
Quantity	6,822	8,448	10,507	16,194
Refinery crude throughput: Quantity	18,379	22,283	25,836	30,146

Consumption: All India Consumption of Petroleum Products

('000 tonnes)

Products	1970-71	1975-76	1980-81	1981-82
Total	7,912	22,447	30,896	32,523
1. Light Distillates of which	2,697	3,596	4,388	5,187
LPG	176	336	404	429
Mogas	1,453	1,275	1,522	1,599
Naphtha	904	1,836	2,325	2,963
2. Middle Distillates of which	9,040	11,653	17,056	17,919
Kerosene	3,283	3,104	4,228	4,693
ATF/Jet-1	689	897	1,125	1,128
HSDO	3,837	6,595	10,345	10,832
LDO	1,092	878	1,122	1,036
3. Heavy ends of which	6,175	7,198	9,452	9,417
F.O.	3,513	4,279	5,406	4,306
Fuel, Oils (Total)	4,664	5,781	7,473	7,184
Lubes/Greases	545	441	593	592
Bitumen	777	690	1,064	1,292
Petroleum Coke	107	151	137	174
Others	82	135	185	175

Exports of Crude Oil and Petroleum Products

(Qty. Tonnes) (Value Rs. million)

Product	1980-81		1981-82	
	Qty.	Value	Qty.	Value
(a) Crude Oil	—	—	838	1,962.3
(b) POL products of which	36	84.1	55	151.3
Naphtha	36	83.4	55	151.3
LDO	—	—	—	—
F.O.	—	—	—	—
Others	neg.	00.7	—	—
Grand Total	36	84.1	839	2,113.6

Imports of Crude Oil and Petroleum Products

(Qty. '000 tonnes) (Value Rs. million)

Item	1980-81		1981-82	
	Qty.	Value	Qty.	Value
(a) Crude Oil	16,248	33,489.7	15,298	37,361.0
(b) POL products of which	7,289	19,175.2	4,884	14,531.6
Naphtha	231	629.5	114	315.4
SKO–DPK	2,065	5,916.7	1,969	6,065.5
ATF	32	78.0	110	363.2
HSDO	3,219	8,853.4	1,838	4,594.5
LDO	68	184.1	83	247.0
Furnace Oil	1,336	2,194.5	527	1,032.3
Lubes	182	792.5	91	522.3
Others	157	526.5	152	491.4
Grand Total (a+b)	23,537	52,664.9	20,182	51,892.6
@ includes NOC imports	60	168.4		

OIL INDUSTRY DEVELOPMENT BOARD: It was set up on January 13, 1975, to give financial and other assistance for the development of the oil industry (See also Ministry of Petroleum and Chemicals).

RESEARCH

The ONGC has set up the Institute of Petroleum Exploration at Dehra Dun for research and training in the exploration and production phases of the Industry. The Indian Institute of Petroleum in Dehra Dun was set up under the control of the Council of Scientific and Industrial Research to conduct research and training in the refining and marketing phases of the industry. The Indian Oil Corporation has set up a Research and Development Centre at Faridabad for conducting research in the formulation of lubricants and greases.

ALLIED COMPANIES

Engineers India Ltd.: (See chapter on "Government of India Undertakings").

Lubrizol India Ltd.: (Thane-Belapur Road, Turbhe, Thane, Maharashtra; Regd. Office: Delstar, 9A, S. Patkar Marg, Bombay 400036). A 60:40 equity holding of the Govt. of India and the Lubrizol Corpn., U.S.A., for the manufacture of Chemical Additives and Solubilizing agents for petroleum-based fuels and lubricants as also antioxidant, dispersant and detergent intermediate components from the basic raw materials.

Mg. Director: P. K. Rudra.

Tide Water Oil Co. (India) Ltd.: (8, Clive Row, Calcutta 700001). A public limited marketing company with Government interest, has branch offices at Bombay, Delhi and Madras. Its activities are blending and marketing of all kinds of lubricants, including specialities and manufacturing of greases.

PETRO-CHEMICALS

THE petro-chemical industry is comparatively of recent origin, but is characterised by spectacular growth during the last three decades, because of its wide application in various fields. The products from petro-chemical industries have entered every aspect of human activity, contributing in a remarkable way to improvement of the quality of life.

Growth: The petro-chemical industry can be mainly grouped into plastics (polyethylene, PVC, polystyrene, polypropylene), and thermosetting plastics, synthetic fibres (polyester, nylon and acrylic), synthetic rubber (styrene, butadiene and poly-butadiene) and synthetic organic chemicals as raw materials for plastics, synthetic fibres, dyestuffs, pesticides, synthetic detergents and pharmaceuticals. With the development of process technology using petroleum distillates as the main ingredient, the petro-chemical industry emerged to supply all the basic chemicals that were once derived from coal, alcohol and vegetable oils, and a large number of new chemicals were produced on a commercial scale.

RAW MATERIALS: The raw materials constituting the source for chemicals from petroleum may be divided into three categories: *(i)* gaseous, *(ii)* liquid and *(iii)* solid. Following are some of the important raw materials:

Natural gas: Natural gas is composed mainly of methane, ethane, propane, butane, pentane, hexane and higher hydrocarbons. The quantities of pentane and hexane determine what is known as wetness of the gas. Natural gas is found either associated with crude oil or non-associated. The non-associated gas may contain very small quantity of butane and higher hydrocarbons and as such it is called dry gas. Besides the hydrocarbons, natural gas may contain a certain amount of nitrogen, hydrogen sulphide, carbon-dioxide and helium.

Derivatives: Natural gases can be used for the manufacture of olefins which are the important building block feedstocks for a large number of petro-chemicals, ammonia, methanol and also carbon black.

Sources: The established fields of natural gas are in Naharkatiya and Moran oil fields in Assam and Ankleshwar, Kalol and Cambay oil fields in Gujarat and the offshore oil fields known as Bombay High and Bassein. Whilst the gases in the Ankleshwar and Kalol oil fields are wet with a high percentage of higher hydrocarbons, the Cambay gas is dry consisting mainly of methane, ethane and small quantities of propane and butane. The gas from Bombay High and Bassein fields is rich in ethane and propane making it an ideal raw material for the production of petro-chemicals. Natural gas is, therefore, a precious raw material and government has decided to use it mainly for the manufacture of fertiliser and petro-chemicals.

Refinery gas: This gas is produced at various stages in refinery operations mainly from the straight distillation units and the thermal and catalytic cracking and reforming processes. The cracked gases are generally very rich in olefins and can be co-polymerised to get high octane gasoline or used to produce petro-chemicals. The distillation gases are generally parafins and are normally used as fuels in the refinery itself. The refinery gases being rich in butane and propane have found extensive use as domestic and industrial fuel in liquefied form.

Naphtha: The most popular petro-chemical raw material from the liquid petroleum group is naphtha. A great deal of research and development effort is being made to use higher liquid fractions to manufacture petro-chemicals. It is considered more advisable to produce goods from the high-priced crude rather than use it as fuel.

The international oil crisis has had a decisive impact on the feedstocks for the petro-chemical industry. In India the petro-chemical and fertiliser industries have been planned on the basis of increasing availability of naphtha with the increasing demand for petroleum products. Till the sixties this valuable petroleum product was exported. Its utility as a feedstock for the production of organic chemical and plastics was appreciated in the mid-sixties.

Demand: The demand for naphtha in 1980-81 was about 2.33 million tonnes against a production of about 2.12 million tonnes requiring an import of 0.23 million tonnes. If the programmed production for fertiliser and petro-chemicals materialises the demand for naphtha would be about 3.4 million tonnes by 1984-85

Uses of Naphtha: Nitrogenous fertiliser is a rapidly growing item in developing countries. Naphtha reforming yields hydrogen, which is required for the synthesis of ammonia, a basic material in fertiliser production. To produce one tonne of ammonia less than a tonne of naphtha is required.

Olefins are the base for the bulk of petro-chemicals produced. Ethylene is the most important followed by propylene and butadiene. The cracking of naphtha to produce olefins is a major commercial process. Naphtha crackers are generally so designed as to give variable ratios of olefins according to market requirements of their end products.

Production of aromatics (*e.g.* benzene, toluene, xylenes, etc.) is another major use of naphtha. Aromatics are used for the production of synthetic fibres, high quality gasoline, etc.

Naphtha-based Industries: There are 18 fertiliser plants in the country which use naphtha either as feedstock or as supplementary stock for production of nitrogenous fertilisers. The important naphtha based fertiliser plants whose consumption of naphtha is around 0.1 million tonnes or more per annum are located in Madras, Tuticorin, Durgapur, Kanpur, Vadodara, Cochin, Goa and Mangalore.

In India the industry has developed only during the last fifteen years. A beginning was made in mid-sixties by setting up a relatively small complex (20,000 tonnes/annum ethylene production) by M/s. Union Carbide near Bombay, using naphtha from the local refinery as the basic raw material. This was followed by M/s. Nocil's 60,000 tonnes/annum ethylene complex, also near Bombay. Subsequently, a large petro-chemicals complex has been put up near Vadodara in Gujarat, by the Indian Petro-chemicals Corporation Limited, a Government of India enterprise.

With the availability of Petro-chemical Intermediates from the above petro-chemical complexes, particularly IPCL, the down stream industries *e.g.* Plastic Processing Industries, Synthetic Fibre industry are set to develop in a big way. The present application of petro-chemicals in India are quite diversified. They are used in a host of products from simple shirt buttons to complex communication systems for aviation and rocket propulsion. They are also used in a variety of consumer products from packaging and insulating materials to staple fibre, filament yarn, electronic components, pipes and fittings, substitute for wool etc. The greatest impact of petro-chemicals is in vital areas like water-management, health-care, transport, housing and clothing etc.

Naphtha consumption by the petro-chemical industries in Bombay and Gujarat during 1980-81 alone was nearly 610,000 tonnes.

According to a prospective study on petro-chemicals, there will be a shortfall of about 467,000 tonnes of plastics and 238,000 tonnes of synthetic fibres by 1987-88. This will involve a foreign exchange outgo for imports of the order of Rs. 7,000 million at 1980-81 prices.

Perspective Plans*

Category	Capacity in operation as on 1.4.1981	(in '000 tonnes) Demands envisaged during 1987-88
Plastics		
1. LDPE	110	244
2. HDPE	30	118
3. PVC	85.8	315
4. Polypropylene	30	65
5. Polystyrene	23.5	43
Synthetic Fibres		
1. Polyester Filament Yarn	8.0	30
2. Polyester Staple Fibre	32.1	138
3. Nylon Filament Yarn and Tyre cord	32.5	108
4. Acrylic Fibre	16	26
Synthetic Rubber		
1. SBR	30	93
2. PBR	20	50
Olefins		
1. Ethylene	210	633
2. Propylene	123.3	247
3. Butadiene	54.4	104
Aromatics		
1. Benzene	139	441
2. O-Xylene	21	91
3. P-Xylene	17	123
Intermediates		
1. Caprolactum	20	125
2. DMT	24	184
3. Formaldehyde	155.8	120
4. Methanol	99	150
5. Phthalic Anhydride	27.3	70.9
6. Phenol	20.9	56
7. Ethylene Oxide	28	89
8. Ethylene Glycol.	30	80

*Based on Report of the Reconstituted working group on Petrochemicals 1978-79.

SOME IMPORTANT COMPANIES

Private Sector

Union Carbide India Ltd., Trombay, Bombay, established the first integrated petro-chemical complex in 1966. Its present licensed capacity is 20,000 tpa low density polyethylene and 10,890 tpa chemicals. The production of polyethylene during 1982 was 17,290 tonnes and in 1981 it was 19,928 tonnes. The output of chemicals during 1982 was 6.331 tonnes and in 1981 it was 6,865 tonnes.

National Organic Chemical Industries Ltd. (Regd. Office: Mafatlal Centre, Nariman Point, Bombay 400021). Factory at Thane, Bombay, constructed in 1968 with a naphtha cracker of 225,000 tpa capacity. to produce 60,000 tpa of ethylene, 35,000 tpa of propylene, 7,200 tpa of butadiene and 14,000 tpa of benzene. From these a variety of organic chemicals are produced. The licensed capacity for petro-chemicals was 246,600 tonnes per annum during 1982 and installed capacity was 298,600 tonnes. Actual production was 214,640 tonnes in 1982. In 1981, while licensed and installed capacities amounted to 230,500 tonnes and 286,600 tonnes respectively, the actual production was 231,875 tonnes. For by-products of petro-chemicals, the licensed capacity is not applicable and installed capacity is not ascertainable by the company. However, the actual production was 130,724 tonnes during 1982 and 150,748 tonnes in 1981.

Polyolefins Industries Ltd., which is an associate company of NOCIL has licensed capacity of 30,000 tpa of HDPE, whereas the certified installed capacity is 50,000 tpa. The production of HDPE in 1982 was 30,980 tonnes and in 1981, 35,225 tonnes.

Public Sector

Indian Petro-Chemicals Corpn. Ltd., P.O. Petrochemicals, Dist. Vadodara 391346, Gujarat Authorised Capital. Rs. 2,000 million; Paid-up Capital; Rs. 1860 million). The aromatics project has been in operation since 1973 and consists of two units namely Dimethyl Terephthalate (DMT) and Xylenes with the capacity of producing DMT: (expanded to 30,000 tpa w.e.f. November 1982): Para-Xylene (for captive conversion into DMT): 17,000 tpa, and Ortho and Mixed Xylene: 23,500 tpa respectively).

The Olefins Plant, which was commissioned in 1979, consists of Naphtha Cracker, Benzene/Butadiene extraction units and pyrolysis Gasoline Hydrogenation Unit. The products with their respective capacities are: Ethylene 130,000 MTA, Propylene (Polymer grade) 38,000 MTA, Propylene (Chemicals grade) 43,300 MTA, Butadiene 22,000 MTA, Benzene 13,500 MTA Pyrolysis Gasoline 111.560 MTA, Mix C4 raffinate 46,610 MTA.

Downstream Units: low Density Polyethylene (using ethylene stream) 80,000 MTA; Ethylene Glycol Unit (using ethylene stream) 20,000 MTA; Polypropylene Unit (using propylene stream) 24,000 MTA Acrylic Fibre Unit (using aerylonitrile) 12,000 MTA; Polybutadiene Rubber (using butadiene stream) 20,000 MTA; Linear Alkyl Benzene 30,000 MTA.

A Research Centre has been set up at a cost of Rs. 50 million and 140 scientists are engaged in the research work. This number is likely to touch 250.

The second petro-chemical complex, **The Bongaigaon Petrochemicals Ltd.,** is being set up at Bongaigaon in Assam, as an adjunct to the one million tonne Bongaigaon Refinery to manufacture 30,000 tpa of polyester fibre and 6,000 tpa of orthoxylene. It will require 80,000 tonnes of a special cut naphtha — 46,000 tonnes will be available from Bongaigaon Refinery while the rest will come from Gauhati refinery. This complex is estimated to cost about Rs. 2,473 million. It is expected to be completed in stages by 1985.

These two petro-chemical complexes are estimated to cost about Rs. 5,500 million.

The IPCL's Research and Development Centre was opened in October 1973, near Vadodara at an estimated cost of Rs. 70 million.

Caprolactum Plant, near Vadodara, Gujarat, was commissioned in December 1973, by Gujarat State Fertiliser company to produce 20,000 tpa of caprolactum and 85,000 tonnes of sulphur dioxide and 85 tonnes of oleum daily.

Assam Petrochemicals Limited, G.N.B. Road, Ambari, Gauhati 781001; factory at Namrup, Parbatpur 786623, Assam, was commissioned on 25th June, 1976 and regular production of best quality products METHANOL, FORMALIN, PETROLITE R-50 for plywood industries, PETROLITE R-65 for other industries (both U.F. resin) and PETROLITE-M, a U.F. Moulding Powder is continued.

Petrofils: The Rs. 413 million polyester filament yarn project in the co-operative sector at Vadodara has already been in production. The initial capacity was 3.500 tonnes of polyester filament yarn per year. The country's biggest producer of polyester filament yarn had planned to double its production from June 1983 after the commissioning of its second phase of expansion.

The existing plant has had an enviable record of capacity-utilisation. In 1983, the capacity-utilisation has been as much as 143 per cent of its installed capacity of 3,500 tonnes per year. At one stage, Petrofils contributed nearly 45 per cent of the polyester filament yarn produced in the country, but with the commissioning of several other units, its share has now dropped to 16 per cent.

PRODUCTION

The following table gives the production of selected organic chemicals and polymers in India during 1970-71, 1975-76, 1979-80, 1980-81 and 1981-82.

(Tonnes)

Product	1970-71	1975-76	1979-80	1980-81	1981-82
Benzene	53,190	71,224	94,801	79,726	82,716
Butadiene*	18,183	16,323	21,766	18,070	22,720
Ethylene*	58,668	64,257	126,537	139,846	147,754
Ethylene Oxide	1,513	9,921	12,134	11,787	11,426
Ethylene Glycol	4,500	7,287	11,782	11,989	15,491
Propylene	5,663	32,766	66,084	72,691	67,638
Toluene	8,325	15,292	23,888	19,012	25,732
Acrylic Fibre	—	—	3,470	10,275	13,592
Nylon Filament Yarn	9,338	14,037	17,686	20,822	23,408
Polyester Staple Fibre	5,423	16.018	23,617	22,381	29,671
Polyester Filament Yarn	602	2,297	9,029	10,707	15,410
LDPE*	24,437	27,636	71,275	87,154	94,293
HDPE	21,153	20,018	25,380	24,293	31,732
Polystyrene*	8,925	9,203	12,036	10.205	7,642
PVC resins*	41,472	43,818	49,891	42,050	32,037
Polypropylene	—	—	13,425	16,729	20,644
SBR*	29,791	25,195	21,596	18,968	17,391
Polybutadiene	—	—	8,712	6,469	11,481

*Partially or fully alcohol-based products.

MISCELLANEOUS MANUFACTURES

THE following table gives the installed capacity and production of selected items manufactured in India during 1982.

Industry	Accounting Units	Installed capacity	Production	Production as percentage of capacity
ACR/AAC conductors	Th. Tonnes	156.00	52.00	33.3
Agricultural tractors	Th. Nos.	90.00	84.32	93.7
Air conditioners (room) @	Th. Nos.	55.3	32.2	58.2
Air/gas compressors @	Th. Nos.	16.00	16.00	100.00
Aluminium collapsible tubes @	Mill. Nos.	272.55	300	110.1
Ball and roller bearings	Mill. Nos.	51.0	36.0	70.6
Beer	Th. KL	124.24	165.00	132.8
Bicycles	Th. Nos.	6,759	5,500	81.4
Biscuits	Th. Tonnes	147.48	125.00	84.8
Boilers (industrial & power)	Rs. Mill.	3,886	3,438	88.5
Bread	Th. Tonnes	132.00	152.00	115.2
Bright bars @	"	541	81	1.50
Broaches @	Nos.	8,150	5,539	68.0
C. I. spun pipes	Th. Tonnes	495	233	47.0
Cameras	Th. Nos.	668	703	105.2
Carbon black @	Tonnes	668	776	116.8
Ceramic colours @	"	105.7	69.6	65.8
Chocolates	"	5,337	3,100	58.1
Cigarettes	Mill. Pcs.	104,480	90,000	86.1
Clocks	Th. Nos.	507	260	51.3
Coaxial cables	KM	4,200	2,141	51.0
Commercial vehicles	Th. Nos.	157.45	26.98	17.1
Confectionery	Tonnes	35,928	22,500	62.6
Contraceptive rubber	Mill. Nos.	513.00	480.00	93.6
Conveyor belts	Tonnes	8,910	8,000	89.8
Cranes @	Th. Tonnes	65	21.7	33.4
Crockery	"	36.69	16.00	43.6
Cutlery	Tonnes	172.0	80	4.7
Diesel engines @	Th. Nos.	313.30	175.99	56.2
Domestic refrigerators	"	339.40	360.00	106.1
Drinking chocolates	Tonnes	1,500	300	20.0
Drums and barrels @	Th. Tonnes	171.8	47.4	27.6
Dry Cells	Mill. Nos.	1,372	1157.9	84.4
Dumpers @	Nos.	570	250	43.9
Electric fans	Mill. Nos.	4.85	4.06	83.7
Electric motors @	Mill. H. P.	6.86	6.15	89.7
Electro-medical equipment @	Rs. Mill	49.4	32.3	65.4
Electronic calculators @	Nos.	9,938	9,691	97.5
Enamelware @	Th. Pcs.	30,000	16,000	53.3
Excavators @	Nos.	405	310	76.5
Face cream	Tonnes	1,030	700	68.0
Face Powder (including talcum)	"	6,128	6,500	106.1
Fan & V belts	Mill Nos.	14.62	11.20	76.6
Fibre board	Tonnes	53,000	18,000	34.0
Fibre glass	M. T.	5,000	2,000	34.0
Fibre rods for cigarettes	Mill Nos.	32.92	31.97	96.1
Fluorescent tubes	"	4,530	8,00	17.7
GLS lamps	"	249.69	270.15	108.2
Gelatine	Tonnes	3,600	2,724	75.7
Glass sheet	Mill sq. Mtrs.	33.62	23.0	70.5
Glassware (Laboratory)	Tonnes	11,520	8,100	70.3
Glazed tiles	Th. Tonnes	62,400	55,000	88.1
Glue	Tonnes	4,220	1,674	39.7
Guar gum	"	4,600	32,500	70.7
H. T. Fasteners & M. S. fasteners @	Th. Tonnes	66.8	41.5	62.1
H. T. Insulators @	Tonnes	27,500	25,500	92.7
Hacksaw blades @	Th. Nos.	2,000	12,198	23.5
House service meters @	Th. Nos.	2,307	3,228	139.9
Hoses	Mill Mtrs.	11.95	5.54	46.4
Hurricane lanterns	Lakh Nos.	47.3	10.00	21.1
Industrial coal springs @	Tonnes	3,860	1,100	28.5
Industrial knives	Nos.	1,300	630	48.5
Industrial Cooling Tower	Rs. Mill	40.0	77.2	193.0
Jeeps	Th. Nos.	15.00	18.00	120.0
Loud Speakers	Lakh Nos.	44.98	20.00	44.5
L. T. circuit breakers @	Th. Nos.	58.97	31.16	52.8
L. T. Insulators @	Tonnes	3,400	37.9	
Leather belting @	"	162.00	42.00	25.9
Lifts @	Nos.	1,380	992	71.8
Loaders	Nos.	445	284	63.8
Magnetic Tapes	Mill. running ft.	120	213	177.5
M. S. Bolts & nuts, rivets @	Th. Tonnes	47.6	29.2	61.3
Machine tools & accessories	Rs. crores	290	334	115.2
Medical and surgical instruments	Rs. Mill	142.5	43.0	30.2
Motor Cycles	Th. Nos.	111.0	103.0	92.8
Motor graders @	Nos.	60	20	33.3
Motor starters @	Th. Nos.	423.50	300.55	71.0
Motorised scrapers @	Nos.	60	75	125.0
Myrobalan extracts	Tonnes	3,000	2,659	88.6
Ossein	Tonnes	25,910	9,918	38.3
Oxygen gas	Mill. Cu. Mtrs.	144.0	110.0	76.4
PVC/PIL power cable	Km.	50,000	24,000	48.0
Paints & Varnishes	Th. Tonnes	152.3	105.0	68.9
Particle boards	"	64.1	21.0	32.8
Passenger cars	Th. Nos.	54.00	29.3	54.3
Permanent magnets @	Tonnes	741.6	159.0	21.4
Plywood	Mill. Sq. Mtrs.	91.14	54.0	59.2
Power capacitors	MVAR	1,482	1,050	70.9
Precision measuring tools @	Rs. Mill.	57.5	50.0	86.9
Press tools, dies, moulds, etc., @	"	100.0	71.1	71.1
Pressure cookers	Lakh Nos.	21.25	13.00	61.2
Printing machinery @	Rs. Mill.	94.7	113.8	107.8
Pumps (Power driven)	Th. Nos.	624	337	54.0

Industry	Accounting Units	Installed capacity	Production	Production as percentage of capacity
Process Control Instruments	Rs. lakhs	7.950	4.600	57.9
Radio receivers	Th. Nos.	2,945	1,919	65.2
Railway wagon	"	29.540	13,050	44.2
Razor blades @	Mill. Nos.	2.780	1.303	46.9
Reamers @	Th. Nos.	450	287	63.8
Refractories	"	1.675	875	52.2
Safety matches @	Mill Boxes	5.000	4.300	86.0
Sanitaryware	Th. Tonnes	36.74	30.00	81.7
Switches @	Lakh Nos.	33.85	13.50	39.9
Stoves (Pressure Non-Pressure)	"	9.97	2.00	20.1
Scooters @	Th. Nos.	615	206	33.5
Sewing machines @	"	655	340	51.9
Soap	Th. Tonnes	248	240	96.8
Soft drinks	Mill Bottles	2,078	1.650	79.4
Spark plugs @ @	Th. Nos.	7.800	9.723	124.7
Steel castings	Th. Tonnes	174	70	40.2
Steel files @	Th. Nos.	31.000	29.431	94.9
Steel furniture & security equipments	Th. Tonnes	45.7	25.0	54.7
Steel pipes. tubes @	"	2132.5	936.6	43.9
Storage batteries	Mill Nos.	2.78	1.97	70.9
Synthetic detergents	Th. Tonnes	25.1	165	65.7
Telephone @	Th. Nos.	427	353	82.7
T. V. picture tubes	"	242	199	82.2
Tape recorders @	Nos.	40.000	27.950	69.9
Teleprinters @	"	8.500	8.595	101.1
Television receivers	"	2.25.000	1.14.506	50.9
Timepieces	Th. Nos.	1.420	850	59.9
Tin containers	Th. Tonnes	115	58	50.4
Toothpaste	"	4.8	13.5	281.3
Tooth powder	Tonnes	1,124	4.000	355.9
Transformers @ @	Mill. KVA	31.0	28.7	92.6
Twist drills @	Mill Nos.	20.0	17.0	85.0
Typewriters @	Th. Nos.	146.4	87.3	59.6
Transmission Towers @	Th. Tonnes	190.0	98.0	51.6
T. V. Picture Tubes @	Th. Nos.	310	240	77.4
Umbrella Ribs	Lakh Sets	7.40	1.00	13.5
Vacuum flasks	Mill Pcs.	7.1	2.1	29.6
Wrist Watches	Mill Nos.	6.1	5.3	86.9
Water coolers @	Th. Nos.	22.05	22.05	100.0
Welding electrodes @	Mill Running Mtrs.	742.0	650	87.6
Winding wires @	Th. Tonnes	48.7	25.0	51.6
Wire ropes @	"	46.2	31.0	67.1
Wood Screws	Mill Nos.	1.509	1.510	100.1
Water Meters @	Lakh Nos.	2.75	2.26	82.2
Wick stoves @	Th. Nos.	602	0.8	0.1
X-ray Equipment	Mill. Rs.	49.1	84.7	172.5
Zip Fasteners	Lakh Mtrs.	1.365	1,300	95.2

@ related to 1981.
@@ related to 1980.

FOOD AND AGRICULTURE

AGRICULTURE is the backbone of the national economy providing income to more than 65 per cent of the total population. It contributes nearly one-half of the national income and earns foreign exchange through exports.

There are two types of agricultural products—food crops and commercial crops, the former enjoying predominance over the latter. Three main crop harvests meet our needs—kharif, rabi and summer. Rice, jowar, bajra, maize, cotton, sugarcane, sesamum and groundnut are kharif crops. Wheat, jowar, barley, gram, linseed, rapeseed and mustard are cultivated during the rabi season while rice, maize and groundnut are also grown during summer.

Agriculture depends largely on the vagaries of the monsoon and if the monsoon plays truant, scarcity conditions and even famine may stalk the land. The food problem had been recognised as a national problem since the days of the British rule who appointed a Famine Commission to look into the causes and suggest remedial measures.

Independence brought in its wake other problems. Partitioned India inherited nearly 82 per cent of the population while losing some of the rich food-producing areas like Sind and East Bengal to Pakistan.

To meet this anomaly the Government intensified the British scheme of the grow-more-food campaigns and in 1954 it abolished all controls on food production. It was to encourage farmers to increase food production.

The Five-Year Plans have subsequently stressed the importance and the high priority of agriculture to solve the food problem. The Government has also created a network of the public distribution system through fair-price shops aiming at a steady supply of food grains at reasonable prices to the economically weaker consumer.

An important aspect of the food policy is to maintain a buffer stock of foodgrains so that price stability is not disturbed and to ensure the smooth and regular supply of foodgrains over the years. This buffer stock is in addition to the regular supply for public distribution. The responsibility of procurement, storage and distribution of foodgrains rests with the Food Corporation of India.

Employment:

Agriculture (including animal husbandry, fishery and forestry) provided employment to the largest chunk of India's labour force. The relevant data based on the census figures for 1971 and 1981 are given below:

	1971		1981	
Category	No. in million	Per cent to total	No. in million	Per cent to total
Cultivators	75.09	43	91.39	42
Agricultural labourers	47.05	27	55.37	25
Total (including others)	175.02	100	220.08	100

The share of agriculture in the total labour force of 220 million was more than 65 per cent in 1981.

Basic Facts (1982-83): Gross cropped area (1980-81): 173 million hectares; gross irrigated area: 58.54 million hectares; soil conservation on agricultural land: 26 million hectares; consumption of fertilisers: 6.42 million tonnes; foodgrains production (1981-82):

Crop production (triennial average) and growth rates

Crop	Unit	1949-50 to 1951-52	1978-79 to 1980-81	Annual growth Rate (per cent)*
Rice	Million tonnes	21.80	49.78	2.9
Jowar	,,	5.82	11.20	2.3
Bajra	,,	2.59	4.98	2.3
Maize	,,	1.95	6.20	4.1
Wheat	,,	6.34	34.60	6.0
Other cereals	,,	5.75	6.42	0.4
Total cereals	,,	44.25	113.18	3.3
Pulses	,,	8.33	10.64	0.8
Total foodgrains	,,	**52.58**	**123.82**	**3.0**
Cotton	Mill. bales (of 170 kgs. each)	3.02	7.63	3.4
Jute	Mill. bales (of 180 kgs. each)	3.71	6.35	2.0
Sugarcane	Mill. tonnes of cane	56.29	143.67	3.3
Oilseeds				
Groundnut	Mill. tonnes	3.37	5.66	1.8
Rape/mustard	,,	0.84	1.84	2.8
Sesamum	,,	0.45	0.43	−0.1
Major oilseeds (5 oilseeds)	,,	5.14	8.58	1.8

(*)—Growth rates are worked out on the basis of triennial averages of production for 1949-50 to 1951-52 and 1978-79 to 1980-81.

133 million tonnes; procurement of foodgrains (1982): 15.35 million tonnes; per capita daily availability of foodgrains (1982): 454.1 grams.

Growth Rates: In recent years, agricultural production has maintained a steady uptrend, partly due to favourable weather and due to technological factors like improved farm practices, extensive use of high-yielding seeds and increase in the consumption of fertilisers. There is little doubt that the production potential of Indian agriculture is now much higher than what it was in the sixties. Compared to just 60 million tonnes in 1952-53, the output of foodgrains in 1983-84 was estimated at 145 million tonnes.

This, however, is the aggregate picture. In respect of cereal crops like jowar, of pulses and cash crops like jute, cotton and oilseeds, the production trends have been unsatisfactory.

India's net national product is estimated at Rs 1,212,430 million in 1981-82 of which the share of agriculture and related sectors exceeded 40 per cent. This underscores the crucial role of the farm sector in Indian economy.

Per Capita Availability: The per capita availability of foodgrains is satisfactory from the overall point of view. But, given the abysmal poverty of the masses, it is doubtful whether they have the capacity to satisfy their biological demand for food in adequate measure. For this reason, the average picture would be grossly misleading. In any case, the per capita availability of pulses which is important from the nutritional point of view, is steadily declining. The data are given below for selected years.

Per Capita Net Availability of food grains

(Grams per day)

Year	Cereals	Pulses	Foodgrains
1956	360.5	70.4	430.9
1961	399.7	69.0	468.7
1965	418.6	61.6	480.2
1970	403.1	51.9	455.0
1975	366.1	39.7	405.8
1976	401.6	50.6	452.2
1977	388.5	43.3	431.8
1978	423.0	45.2	468.2
1979	429.6	44.9	474.5
1980	380.0	30.9	410.9
1981	416.6	37.0	453.6
1982	415.5	38.6	454.1

Crops under HYV Programme

(million hectares)

Year	Paddy	Wheat	Maize	Jowar	Bajra	Total
1970-71	5.59	6.48	0.46	0.80	2.05	15.38
1975-76	12.74	13.45	1.13	1.95	2.89	32.16
1976-77	13.73	14.69	1.20	2.65	2.21	34.48
1977-78	15.60	15.50	1.20	3.10	2.60	38.00
1978-79	16.90	16.10	2.10	3.10	2.90	41.00
1979-80	15.99	15.03	1.35	3.05	2.96	38.38
1980-81	18.20	16.10	1.60	3.60	3.50	43.00
1981-82	19.70	16.70	1.60	4.60	3.90	46.50
1982-83 (estimated)	18.70	18.10	1.70	4.00	4.80	47.30

Yield per Hectare: The major weakness of Indian agriculture is the extremely low level of productivity. Though the yield per hectare has tended to increase in recent years, it is less than the potential and what has been achieved in other countries. This is evident from the data for 1981 (in grams per hectare).

Rice: U.S.A.: 5,462; Egypt: 5,411; China: 4,637; U.S.S.R.: 3,785; Mexico: 3,583; India: 2,010.

Wheat: Mexico: 3,704; Egypt: 3,162; U.S.A.: 2,321; Canada: 2,005; Rumania: 2,748; India: 1,648.

Maize: U.S.A.: 6,898; Canada: 5,874; Yugoslavia: 4,308; Egypt: 3,782; U.S.S.R.: 2,257; India: 1,207.

Pulses: Egypt: 2,259; West Germany: 3,494; France: 3,021; Canada: 1,699; U.S.A.: 1,634; India: 491.

High-yielding Varieties Programme: The high-yielding varieties programme was launched in 1966-67 as part of the new agricultural strategy to boost the production of foodgrains. The programme covers five crops—paddy, wheat, maize, jowar and bajra. In respect of all these crops, the coverage has steadily increased in recent years. During 1982-83, this programme was undertaken in 47 million hectares as against 11.40 million hectares in 1969-70.

Prospects for 1982-83 and 1983-84:

According to advance estimates, the production of foodgrains during 1982-83 suffered a big setback because of the indifferent performance of the monsoon.

However, the prospects for a good agricultural year during 1983-84 are bright. According to current indications, the foodgrains production target of 142 million tonnes may be exceeded by around 3 million tonnes. Most of the targets of production of cash crops are also likely to be hit.

Exports of Agricultural Commodities

Exports of agricultural commodities are a major source of foreign exchange for the country and account, on an average, for about 40 per cent of the total export earnings. The value of exports of some of the agricultural products during 1982-83 are as follows (Rs. million): Jute manufactures 2,501; tea 3,733; oilcakes 1,394; cashew kernels 1,688; tobacco 2,278; coffee 1,325; sugar 403; spices 1,125; raw cotton 350; fish and fish preparations 2,744 and vegetable oils 233.

Index Numbers of Agricultural Production

(Base: Triennium ending 1969-70=100)

	Group / Commodity	1950-51	1960-61	1970-71	1978-79	1979-80	1980-81	1981-82
A.	Foodgrains	57.1	86.1	112.9	139.3	114.8	137.5	140.8
	(a) Cereals	53.8	82.6	114.1	143.6	119.9	143.1	145.8
	Rice	56.3	88.3	107.4	137.5	108.3	137.2	137.1
	Wheat	37.8	60.9	132.1	196.8	176.4	201.2	209.7
	(b) Pulses	81.8	112.3	104.4	107.5	76.6	95.8	103.7
	Gram	73.3	119.9	99.7	110.2	64.5	83.2	87.8
B.	Non-Foodgrains	62.0	88.1	108.7	134.6	122.3	130.1	145.9
	(a) Oilseeds	66.1	89.8	116.1	122.4	108.4	110.3	137.8
	Groundnuts	64.3	91.0	118.4	120.3	111.8	97.0	140.3
	Rapeseed & Mustard	51.4	90.2	132.3	124.7	95.6	133.6	157.7
	(b) Fibres	57.8	96.3	89.3	139.5	133.9	126.3	138.4
	Cotton	54.3	99.2	85.1	142.1	136.5	125.1	139.7
	Jute	70.4	83.2	99.6	130.5	122.4	131.2	137.4
	Mesta	59.7	100.9	113.7	160.5	162.7	142.2	136.3
	(c) Plantation Crops	62.7	78.3	114.8	149.7	155.1	155.4	161.3
	Tea	70.1	81.6	106.4	143.2	140.2	146.1	146.1
	Coffee	39.2	86.1	170.1	170.4	230.9	182.9	239.0
	Rubber	20.6	36.7	127.1	186.8	205.0	211.4	211.1
	(d) Miscellaneous	61.1	93.3	106.9	131.7	109.3	130.2	152.6
	Sugarcane (gur)	58.1	94.1	106.4	129.0	107.4	129.4	153.6
	Tobacco	72.3	84.5	101.8	127.7	123.3	133.3	146.8
	Potato	42.7	66.9	112.0	244.0	199.9	231.9	238.3
	All Commodities	58.5	86.7	111.5	137.8	117.1	134.9	142.6

Agricultural Production (1981-82): Thanks to favourable seasonal factors, the prduction of both food and cash crops showed a marked increase in 1981-82 as compared to 1980-81. According to official estimates, the output of rice, was more or less unchanged at 53.6 million tonnes but that of wheat rose from 36.3 million tonnes to 37.8 million tonnes, of coarse grains from 29.1 million tonnes to 30.3 million tonnes and pulses from 10.6 million tonnes to 11.4 million tonnes. The total foodgrains production increased from 129.6 million tonnes to 133.1 million tonnes.

Among the non-food crops, the outturn of oilseeds rose from 9.4 million tonnes in 1980-81 to 12.1 million tonnes in 1981-82, of sugarcane from 154.2 million tonnes to 183.6 million tonnes, of cotton from 7.0 million bales to 7.8 million bales and jute and mesta from 8.2 million bales to 8.4 million bales.

Reflecting this uptrend, the **index numbers of agricultural production** (triennium ending 1969-70 as base) spurted from 134.9 in 1980-81 to 142.6 in 1981-82; the index number of foodgrains production rose from 137.5 to 140.8 and that of non-food crops from 130.1 to 145.9.

The Task Force under the chairmanship of Secretary (Agriculture and Rural Development) carried out an indepth review of the export potential of agricultural products, keeping in view the domestic requirements and production possibilities of various farm commodities.

Food Consumption: The per capita consumption in India of all food items in terms of calories compares as follows: Canada: 3,346; U.S.A.: 3,537; U.K.: 3,305; Japan: 2,847; India: 1,949.

The increase in population by about 12 million persons per year in itself requires one million tonnes of additional grain. For an increase of the per capita intake of 100 calories per day the country would require an additional five million tonnes per year.

Fair Price Shops: The total population covered by fair price shops is estimated at 660 million, of which 500 million is in the rural areas. Of the 2.28 lakh fair price shops in the country, 2.20 lakhs were in the rural areas.

All-India Production of Selected Food and Cash Crops—Selected Years

(million units)

	Group / Commodity	Unit	1960-61	1970-71	1978-79	1979-80	1980-81	1981-82*
A.	Foodgrains	Tonnes	82.33	108.42	131.90	109.70	129.59	133.06
	(a) Cereals	”	69.59	96.60	119.72	101.13	118.96	121.71
	Rice	”	34.60	42.23	53.77	42.33	53.63	53.59
	Wheat	”	11.00	23.83	35.51	31.83	36.31	37.83
	Jowar	”	9.90	8.10	11.44	11.65	10.43	11.57
	Maize	”	4.12	7.49	6.20	5.60	6.96	6.76
	Bajra	”	3.29	8.03	5.57	3.95	5.34	5.32
	Other cereals	”	6.69	6.93	7.23	5.77	6.29	6.64
	(b) Pulses	”	12.73	11.82	12.18	8.57	10.63	11.35
	Gram	”	6.26	5.20	5.74	3.36	4.38	4.57
B.	Non-Foodgrains							
	(a) Oil seeds**	”	6.87	9.26	9.35	7.86	8.08	10.90
	Groundnut	”	4.70	6.11	6.21	5.77	5.01	7.24
	Rapeseed and mustard	”	1.35	1.98	1.86	1.43	2.00	2.36
	(b) Sugarcane (in terms of gur)	”	11.41	12.98	15.73	13.09	15.77	18.73
	(c) Cotton	Bales@	5.55	4.76	7.96	7.65	7.01	7.83
	(d) Jute	Bales+	4.14	4.94	6.47	6.07	6.51	6.82
	(e) Mesta	Bales+	1.11	1.26	1.86	1.89	1.65	1.58
	(f) Potato	Tonnes	2.72	4.81	10.13	8.33	9.67	9.94

(*) Final Estimates
(**) Include groundnut, rapeseed and mustard, sesamum, linseed and castorseed.
(@) = 170 kgs.
(+) = 180 kgs.

Area and production of selected food and cash crops in major growing states (1981-82)

(A - Area in million hectares; P - Production in million tonnes)

States		Rice	Wheat	Jowar	Maize	Bajra	Gram	Groundnut	Cotton*	Jute@	Sugarcane (gur)
Andhra Pradesh	A	3.80		2.18	0.33	0.55		1.43	0.48		0.18
	P	7.86		1.26	0.63	0.44		1.41	0.66		14.8
Assam	A	2.66								0.11	
	P	2.24								0.95	
Bihar	A	5.46	1.72		0.83		0.20			0.14	0.1
	P	4.26	2.57		0.73		0.14			0.83	4.1
Gujarat	A	0.50	0.70	0.94	0.31	1.43		2.19	1.53		0.0
	P	0.74	1.41	0.56	0.40	1.47		2.15	2.10		5.0
Haryana	A	0.51	1.56			0.85	1.04		0.33		0.1
	P	1.25	3.68			0.50	0.31		0.68		5.8
Himachal Pradesh	A				0.29						
	P				0.46						
Jammu & Kashmir	A				0.28						
	P				0.48						
Karnataka	A	1.13		1.65	0.15	0.51		0.78	0.97		0.1
	P	2.21		1.32	0.43	0.20		0.62	0.54		12.
Kerala	A	0.79									
	P	1.25									
Madhya Pradesh	A	4.79	3.29	2.33	0.77		1.93	0.30	0.60		
	P	3.80	3.27	1.92	0.76		1.28	0.22	0.33		
Maharashtra	A	1.52	1.13	6.58		1.74	0.46	0.82	2.70		0.
	P	2.44	0.99	4.89		0.78	0.18	0.69	1.46		28.
Orissa	A	4.30						0.22		0.05	
	P	4.69						0.30		0.41	
Punjab	A	1.27	2.92		0.34		0.24		0.68		0.
	P	3.76	8.55		0.62		0.12		1.27		6
Rajasthan	A		1.77	0.97	0.92	4.94	1.92	0.16	0.38		
	P		2.94	0.41	0.75	0.80	1.25	0.11	0.43		
Tamil Nadu	A	2.47		0.65		0.37		1.14	0.25		0
	P	5.58		0.54		0.28		1.37	0.31		18.
Uttar Pradesh	A	5.31	7.85	0.68	1.21	0.97	1.59	0.27			1.
	P	5.73	12.88	0.59	0.98	0.66	1.06	0.26			76.
West Bengal	A	5.21								0.51	
	P	5 83								4.47	
All India (including others)	A	40.71	22.31	16.16	5.90	11.66	7.82	7.45	7.99	0.83	3
	P	53 59	37.83	11.57	6.76	5.32	4.57	7.24	7.83	6.82	18

* Million bales of 170 kgs. each. @ Million bales of 180 kgs. each.

NOTE: Data relating to area and production are given only for those states where the crop is grown to an extent that is significant from the all-India point of view absence of figures for any state does not necessarily mean that the crop is not cultivated at all. The area and production of crops of such states are included in all-India total.

Foodgrain Loss: Six million tonnes of foodgrains valued at Rs. 10,000 million are lost every year because of non-scientific and old methods of storage.

Agricultural Credit: The co-operative structure comprising a network of primary co-operatives, the commercial banks with about 15,000 rural and special agricultural banks and regional rural banks has taken deep roots in the country. In order to bring about a better co-ordination in credit policies, National Bank for Agriculture and Rural Development has been set up which will function as the apex re-financing institution in the country. The break-up of sector-wise progress by co-operatives is given below:

(Rs. million)

Item	1982-83 Target	1982-83 Anticipated achievement	1983-84 Target
Short-term advances	21,000	19,000	22,500
Medium-term advances	2,000	2,000	2,250
Marketing of agricultural produce	23,000	23,000	25,000
Long term advances	4,850	4,400	5,250
Value of retail sale of fertilisers	13,000	12,000	14,000
Value of consumer goods to be distributed by urban consumer co-operatives	11,500	11,000	12,500
Value of consumer goods to be distributed in rural areas	13,000	10,500	13,000

In addition to co-operatives, commercial banks are also engaged in rural credit activity, offering both short and long-term advances.

With the coming into operation of the National Bank for Agriculture and Rural Development, considerable expansion in the flow of rural credit is expected to take place during 1983-84.

National Seeds Corporation Ltd., 4-E, Jhandewalan, New Delhi 110055 and the **Tarai Seeds Development Corporation,** Pantnagar, P.O. Haldi, Nainital (U.P.), were set up for the supply and production of foundation/certified seeds of the high yielding varieties.

Mechanised Farms: There are 14 Central and State mechanised farms in operation. They are located in Khamam (Andhra Pradesh); Kokilabut (Assam); Hissar (Haryana); Raichur (Karnataka); Aralam (Kerala); Lokichera and Lushiachera (Mizoram); Jharsuguda (Orissa); Lodhowal (Punjab); Suratgarh and Jetsar (Rajasthan); Chengam (Tamil Nadu); Bahraich and Rae Bareili (Uttar Pradesh).

The cultivated area of these farms is about 35,000 hectares. Apart from providing improved varieties of seeds they help local farmers with land development, levelling, reclamation and harvesting on a commercial basis.

Food Corporation: The Food Corporation of India was set up as a statutory body in January, 1965, to purchase and store foodgrains and later distribute them as required. (See chapter on "Government of India Undertakings".)

Canning Centres: Twenty-three community canning and preservation centres were under operation for popularising vegetable and fruit preservation. The units organise demonstrations, lectures and film shows on techniques of preservation and canning. 15 more were to be opened before the end of the Fifth Plan in 1979.

Community Canning and Preservation Centres in major cities are at 1.108, Magadi Chord Rd., Bangalore 560040; 2. Abhyudaya Nagar No. 1, G. D. Ambedkar Marg, Bombay 400033; 3. 107, B, BI 'F'

Cultivated and Irrigated Area—State-wise

1978-79 (Provisional)

('000 hectares)

Zone/State	Cultivated area Net	Cultivated area Gross	Irrigated area Net	Irrigated area Gross	Per cent of net irrigated area to net cultivated area
Andhra Pradesh	11,349	13,121	3,655	4,691	32.2
Assam	2,679	3,311	572	572	21.4
Bihar	8,532	11,381	2,960	3,707	34.7
Gujarat	9,543	10,389	1,715	1,936	18.0
Haryana	3,650	5,522	1,918	2,979	52.5
Himachal Pradesh	561	935	89	156	15.9
Jammu & Kashmir	724	990	305	405	42.1
Karnataka	10,315	11,133	1,409	1,718	13.7
Kerala	2,204	2,886	228	354	10.3
Madhya Pradesh	18,847	21,747	2,315	2,413	12.3
Maharashtra	18,245	19,860	1,896	2,306	10.4
Manipur	140	213	65	75	46.4
Meghalaya	193	223	48	50	24.9
Nagaland	150	150	54	54	36.0
Orissa	6,097	8,275	1,148	1,586	18.8
Punjab	4,177	6,630	3,262	5,506	78.1
Rajasthan	15,471	17,496	2,895	3,451	18.7
Sikkim	61	65	10	10	16.4
Tamil Nadu	6,251	7,684	2,873	3,819	46.0
Tripura	246	385	29	29	11.8
Uttar Pradesh	17,482	24,300	8,892	10,575	50.9
West Bengal	5,539	7,878	1,489	1,541	26.9
All India (Including others)	142,938	175,177	37,961	48,090	26.6

All-India Cultivated and Irrigated Area (Gross & Net) and Coverage Under High Yielding Varieties

(000' hectares)

Year	Area sown		Area irrigated		Gross area under high yielding varieties	Share of gross irrigated to gross sown area (%)
	Gross	Net	Gross	Net		
1951-52	133,234	119,400	23,180	21,049	—	17.4
1960-61	152,772	133,199	27,980	24,661	—	18.3
1965-66	155,276	136,198	30,901	26,344	—	19.9
1970-71	165,791	140,784	38,194	31,103	15,383 (9.3)	23.0
1975-76	170,994	142,224	43,190	34,491	31,888 (18.6)	25.3
1976-77	167,280	140,180	43,530	35,150	33,560 (20.1)	26.0
1977-78	172,305	141,936	46,030	36,553	38,930 (22.6)	26.7
1978-79	175,177	142,938	48,090	37,961	40,134 (22.9)	27.5
1979-80	167,200	141,000	50,390	40,500	38,383 (23.0)	30.1
1980-81	173,000	—	55,020	—	45,250 (26.2)	31.8

Note: **Figures within brackets indicate the percentage share of** area under HYV to total sown area.

New Alipore, Calcutta 700069; 4. 2-2-2-University Rd., Hyderabad 500007; 5. Food & Nutrition Board, Shastri Bhavan, 35, Haddows Rd., Madras 600006; 6. 35; Raj Park, New Delhi 110060; 7. D 26, C.C. Colony, New Delhi 110007.

Tractors: Although the precise figures are lacking, the number of tractors now in use is about 0.5 million. Of this, Punjab and Uttar Pradesh account for about 50 per cent. Indian tractor industry has made good progress in recent years. In 1961-62, the indigenous production numbered only 880; this rose to 20,099 in 1970-71 and further to 71,000 in 1980-81. The installed capacity of the tractor industry was 90,000 numbers in 1982-83 and the estimated output was 62,800. The targets of capacity and production for 1983-84 is 90,000 and 70,000 respectively.

Fertilisers: (See Chapter on "Fertiliser Industry").

Agricultural Education: Refer to chapter on Education.

Agricultural Research: The Indian Council of Agricultural Research is the apex organisation for sponsoring, coordinating and directing agricultural research and education in the country. The Council performs the triple functions of research, education and extension education through 34 central Research Institutes, the National Academy of Agricultural Research Management, five project Directorates and 21 Agricultural Universities located in the State sector.

Soil Conservation: All-India Soil and Land Use Survey Organisation, Pusa Rd., New Delhi 110012 carries out soil survey in selected river valley projects and priority watersheds for soil conservation works. Similar centrally sponsored schemes are also under operation in the catchment of major river valley projects.

Research Centres: Eight research-cum-training centres for soil conservation under the jurisdiction of Indian Council of Agricultural Research have been established at the following places:-

1. Ootacamund (Tamil Nadu) for erosion control in the Nilgiri and other hills; 2. Bellary (Mysore) for soil conservation studies in black soils; 3. Kotah (Rajasthan) with sub-centre at Agra for erosion control in the Chambal and Jumna ravines; 4. Dehra Dun (U.P.) for studying problems of afforestation in the Sivalik hills with the substation at Chandigarh for training *chos* (hill torrents); 5. Valsad (in the Gujarat tract) for erosion control in the ravines along rivers in Gujarat; 6. Chandigarh (outer Sivaliks); 7. Agra (Yamuna ravines); 8. Ibrahimpatnam (Andhra) for tackling red soil problems.

The centres train gazetted officers and assistants to man the soil and water conservation projects.

Minor Irrigation: Minor irrigation includes schemes relating to small storage tanks, river pumping projects, tube-wells, filter points, dug wells, small flood protection embankments and drainage schemes. The **Central Ground Water Board,** Jamnagar House, New Delhi 110011 is fully responsible for ground-water exploration in the country and most of the States have set up Ground Water Organisations for development of ground-water resources for agricultural purposes.

LAND REFORMS: Laws on ceiling on agricultural land based on national guidelines have been enacted in various States but the progress in their implementation has been rather tardy. Of the 4.2 million hectares declared surplus in different States so far, only about 2.8 million hectares have been taken possession of by the States and of this 2.0 million hectares have been actually distributed. Worse still, the pace of progress in developing the land so distributed is very poor.

In regard to consolidation of holdings, most of the States have enacted legislation. It is estimated that 45 million hectares accounting for 25 per cent of the total consolidable land has been consolidated so far. The record is not satisfactory.

Average size of Land Holdings: The average size of a farm was 2 hectares in 1976-77. The Statewise average size of holding (in hectares) is as follows: Andhra Pradesh 2.34; Assam 1.37; Bihar 1.11; Gujarat 3.71; Haryana 3.58; Himachal Pradesh 1.63; Jammu & Kashmir 1.07; Karnataka 2.93; Kerala 0.49; Madhya Pradesh 3.58; Maharashtra 3.66; Orissa 1.63; Punjab 2.74; Rajasthan 4.65; Tamil Nadu 1.25; Uttar Pradesh 1.05 and West Bengal 0.99.

The total number and area of operational holdings according to size are furnished in the following table:

Size class (hectares)	Number ('000)	Percentage	Area ('000 hectares)	Percentage
Below 0.5	30,080	36.9	7.016	4.3
0.5— 1.0	14,457	17.7	10,483	6.6
1.0— 2.0	14,710	18.0	20,870	12.8
2.0— 3.0	7,484	9.2	18,109	11.1
3.0— 4.0	4,165	5.1	14,275	8.7
4.0— 5.0	2,842	3.5	12,563	7.7
5.0—10.0	5,371	6.6	37,072	22.7
10.0—20.0	1,943	2.4	26,037	15.9
20.0—30.0	323	0.4	7,644	4.7
30.0—40.0	91	0.1	3,088	1.9
40.0—50.0	36	—	1,568	0.9
50.0 and above	46	0.1	4,504	2.7
TOTAL	81,548	100.0	163,229	100.0

Land Utilisation Statistics: 1977-78

(000 hectares)

All India/States	Area under forest	Area not available for cultivation	Other cultivated land	Fallow Land		Net area sown	Total reporting area
				Total	Current fallows		
1950-51	40,482	47,517	49,446	28,124	10,678	118,746	284,315
1960-61	54,052	50,751	37,637	22,819	11,639	133,199	298,458
1970-71	63,917	44,640	35,060	19,357	10,598	140,784	303,758
1978-79	67,441	39,299	33,013	21,990	12,443	142,938	304,681
States—1978-79							
Andhra Pradesh	6,222	4,483	2,099	3,287	2,234	11,349	27,440
Assam	1,964	2,415	564	230	108	2,679	7,852
Bihar	2,758	2,668	829	2,543	1,619	8,532	17,330
Gujarat	1,969	3,543	2,856	900	486	9,543	18,811
Haryana	110	451	79	114	114	3,650	4,404
Himachal Pradesh	827	354	1,207	53	49	561	3,002
Jammu & Kashmir	2,198	563	375	94	86	724	4,674
Karnataka	3,016	1,904	2,243	1,592	967	10,315	19,070
Kerala	1,082	335	196	69	42	2,204	3,886
Madhya Pradesh	14,205	4,485	4,870	1,791	858	18,847	44,198
Maharashtra	5,324	2,723	2,811	1,655	812	18,245	30,758
Manipur	602	1,445	24	—	—	140	2,211
Meghalaya	812	315	617	312	51	193	2,249
Nagaland	288	49	45	510	84	150	1,042
Orissa	6,655	836	1,283	669	531	6,097	15,540
Punjab	217	529	55	55	55	4,177	5,033
Rajasthan	2,023	4,429	6,726	4,055	1,937	15,471	34,704
Tamil Nadu	2,031	2,288	716	1,715	1,267	6,251	13,001
Tripura	578	120	100	4	2	246	1,048
Uttar Pradesh	5,109	3,364	2,315	1,539	932	17,482	29,809
West Bengal	1,185	1,382	531	212	—	5,539	8,849

Note: In the case of a few states the data relate to years prior to 1978-79.

FORESTS

FORESTRY, as a national objective was launched countrywide with three aims in view: (1) ecological balance, (2) fuel, fodder and other domestic needs of the population and (3) needs of village, small and large-scale industries. Though Forests and Wild Life are subjects under the Concurrent List, the responsibility for management of forests rests directly with every State, the co-ordinating body being the Central Board of Forestry headed by the Union Minister, in charge of forests.

To check illegal and irresponsible felling of trees and diversion of forest land for non-forestry purposes, the Forest (Conservation) Act was enacted in 1980. The importance and priority given to the development of forestry in the Sixth Plan is reflected in the outlay of Rs 6,924.9 million which exceeds the total outlay of Rs. 4,832.2 million during the past 30 years of the Plan period.

Total forests: 75.06 mill. hectares. Percentage of forests to land in India is 22.8. Per capita forest area is 0.11 hectares as compared to world average of 1.08 hectares. An average of 3.6 million people are engaged in forestry activities.

Revenue from forests: Rs. 48.10 per hectare. Forest revenue as percentage of national revenue: 2.3.

By composition, coniferous forests constitute 4.76 million hectares, the broad-leaved species such as sal and teak aggregate 41.74 million hectares, while miscellaneous trees and bamboo forests account for 7.478 million hectares. The forests are owned by the State (95.8 per cent), by corporate bodies (2.6 per cent) and by private individuals (1.6 per cent).

The forests are unevenly distributed and the production is also proportionately low, being only 0.5 cu. m. per hectare per year as against the world average of 2.1 cu. m. per hectare. Forests are located mostly in hilly terrain or remote interior areas where communications are not properly developed. Madhya Pradesh has the maximum forest area and accounts for about 23 per cent of the country's total forest area. Other important wood-rich States are Andhra Pradesh, Assam, Himachal Pradesh, Karnataka, Maharashtra, Orissa, Rajasthan, Uttar Pradesh and Andaman and Nicobar Islands.

Classification: Forests in India can be broadly classified in the following major groups: (*i*) Tropical forest; (*ii*) Montane subtropical forest; (*iii*) Montane temperate forest and (*iv*) Alpine forest.

Each of these groups has a number of types which are in turn divided into sub-types. 16 broad climatic forest groups are recognised in this country. These are:

1. Tropical West Evergreen Forests—4.5 million hectares including semi-evergreen forests (Parts of Assam, West Bengal, Karnataka, Kerala and Andaman and Nicobar Islands).
2. Tropical Semi-Evergreen Forests—1.9 million hectares (Parts of Assam, West Bengal, Orissa and Andamans).
3. Tropical Moist Deciduous Forests—23.3 million hectares (Parts of Andamans, Uttar Pradesh, Madhya Pradesh, Maharashtra, Karnataka, Orissa, Tamil Nadu and Kerala).
4. Tropical Dry Deciduous Forests—29.15 million hectares (Almost all over India).
5. Littoral and Swamp Forests—0.6 million hectares (Deltas of big rivers).
6. Tropical Thorn Forests—5.2 million hectares (Parts of Punjab,

Haryana, Rajasthan, Uttar Gangetic Plains, the Deccan Plateau and Lower Peninsular India).

7. Tropical Dry Evergreen Forests—0.7 million hectares (Restricted to a small area of the East Coast in Tamil Nadu).
8. Sub-Tropical Dry Evergreen Forests—0.2 million hectares (Siwaliks and the Western Himalayas up to about 1,000 m.).
9. Sub-Tropical Broad-leaved Hill Forests—0.3 million hectares (Lower slopes of the Himalayas in W. Bengal and Assam and other hill ranges such as Khasi Hills, Nilgiris and Mahableshwar).
10. Sub-Tropical Pine Forests—3.7 million hectares (North-West Himalayas, between 1,000 m. to 1,800 m. and in Khasi, Manipur and Naga Hills).
11. Montane Wet Temperate Forests—1.6 million hectares ((Tamil Nadu and Kerala above 1,500 m. and in the Eastern Himalayas, viz., W. Bengal, Assam, Arunachal Pradesh from 1,800 m. to 3,000 m.).
12. Himalayan Moist Temperate Forests—2.7 million hectares including dry temperate forests. (Entire length of Himalayas between the pine and sub-alpine forests in Kashmir, Himachal Pradesh, Punjab, Uttar Pradesh and Sikkim between 1,500 m. to 3,300 m.).
13. Himalayan Dry Temperate Forests—0.2 million hectares (Inner ranges of the Himalayas where S-W monsoon is very feeble).
14. Sub-Alpine Forests
15. Moist Alpine Scrub
16. Dry Alpine Scrub.

Higher elevations over 3,000 m. on the Himalayas.

The treeless zone is the habitat of the Tibetan sheep, bharal, woolly hare with occasional appearance of snow leopard.

Over 16 per cent of the total forest area is inaccessible and 45 per cent of these could yield timber and other forest products.

Education and Research: Forest Research and education are centralised in the Forest Research Institute & Colleges located at Dehra Dun and its regional centres all over the country. The Institute is recognised by F.A.O. as a centre for training in forestry for the South-East Asia-Pacific region since 1951.

The Forest Research Institute & Colleges are under the administrative control of the Ministry of Agriculture (Deptt. of Agri. & Coopn.), Government of India. Its administrative head is designated the President. It has under its control seven Regional Forest Research Centres, one each at Bangalore, Jabalpur, Coimbatore, Ranchi, Hyderabad, Simla and Barnihat to deal with the special problems pertaining to the area. Forestry education is imparted through Indian Forest College, Dehra Dun, State Forest Service Colleges at Dehra Dun, Barnihat, Coimbatore, and Northern Forest Rangers College, Dehra Dun; Southern Forest Rangers College, Coimbatore, Eastern Forest Rangers College, Kurseong, Central Forest Rangers College, Chandrapur, Forest Rangers College, Balaghat. In addition there are five Rangers Colleges run by State Governments with the examinations and syllabus controlled by Forest Research Institute & Colleges, Dehra Dun.

The Institute has four directorates working under the President, viz. (1) The Directorate of Forest Education, training professional foresters for Indian Forest Service, State Forest Service and Rangers for Centre and States; (2) the Directorate of Forestry Research with twelve branches—the Silviculture branch, the logging branch, the forest genetics branch, the minor forest products branch, the forest physiology branch, the forest ecology branch, the forest soils branch, the forest economics branch, the forest influences branch, forest management and mensuration branch, Chemistry of forest Products branch and Radio Isotope branch; (3) the Directorate of Biological Research with five branches—the systematic botany branch, the forest pathology branch, the entomology branch, the wood anatomy branch and Disease and Insect Survey branch; (4) the directorate of Forest Products Research with seven branches—the wood seasoning branch, the composite wood branch, the cellulose and paper branch, the timber mechanics branch, the timber engineering branch, the wood preservation branch, and the wood working, saw milling and finishing branch.

Besides forestry training, the institute also imparts training in wood seasoning, wood preservation and pulp and paper technology and also imparts vocational training in forest based industries. It also provides research facilities for post-M.Sc.s and post-doctorate research on forestry subjects to university scholars. A new Wild Life Institute of India has also been formed. A National Forest Computer Centre has also been established in 1983. The Logging Training Central Project, established in 1965, has been reorganised and upgraded as Logging Development Institute with effect from Nov. 1982 to intensify other training activities.

To train Indian Forest Service personnel in modern business aspect of forest resource management, an Indian Institute of Forest Management has been established recently in Bhopal with the assistance of Swedish International Development Agency.

Forest Produce: The forest produce can be broadly divided into two groups:—

(i) Major forest produce—timber and firewood. The important varieties are teak (Tectona grandis), deodara (Cedrus deodara), sal (Shorea robusta), sissoo (Delbergia sissoo), chir (Pinus roxburghii) and Kail (Pinus wallichiana).

(ii) Minor forest produce—the commercially important items under this are bamboos, canes, gums, resins, dyes, tans, lac, fibres, floss and medicinal plant material.

Government is the largest timber producing agency in the country. Sale of timber is done mostly by auction and in standing form.

Teak is by far the most important species which occurs over an area of 8.9 million hectares. More than 50 per cent of total area under teak is in Madhya Pradesh. The next are the States of Maharashtra, Andhra Pradesh, Karnataka, Kerala and Gujarat.

Sal ranks next to teak in its utility and value. Sal forests cover an area of 11.6 million hectares and are distributed in Assam, Bihar, Madhya Pradesh, Orissa, Tripura, Uttar Pradesh and West Bengal.

Rosewood which is valued for its grain and colour, is mostly obtained from Kerala, Karnataka, Tamil Nadu, Andhra Pradesh and Maharashtra.

Cedrus deodara (Deodara) is by far the most important coniferous species highly valued as constructional timber.

Pinus roxburghii (Chir pine) ranks second best for constructional purposes and for resin. Abies pindrow (Fir) and Picea smithiana (Spruce) represent the valuable long fibre resource for pulp and paper industry.

The total production of wood is estimated at 20.311 million cu. m. of which 8.2 million cu. m. constitute industrial wood. Fuel wood production is 12.019 million cu. m. including wood for charcoal.

There are about 3,430 saw mill units. Their capacities range from 10 tonnes to 200 tonnes per day. There is an increasing tendency of opening departmental saw mills in various forest departments to obtain rational utilisation of forest produce. Some of the saw mills have introduced their own seasoning kilns.

Exports and Imports of Forest Products: The exports of total forest products (major and minor) went up to Rs. 906.9 million in 1976-77 from Rs. 621.5 million in 1975-76. On the other hand, imports during 1976-77 showed a decrease and stood at Rs. 745.2 million as against Rs. 802.7 million in 1975-76.

Forest Development Corporations: The corporations are functioning in 15 States and two Union Territories. These, apart from attracting institutional finance would promote marketing of timber and other forest produce, and also make available industrial and fuel wood. By 1978-79, 16 forest development corporations had been set up and were expected to achieve a target of 35,000 hectares of plantation and create employment for 13 million man-days during the year.

Preservation of Wild Life: Wild Life Protection Act, 1972 which governs the wild life conservation and protection of endangered species both inside and outside forest areas, has been extended to most of the States and Union Territories. From Sept. 1982, the subject 'Wild Life' was brought under the Department of Environment.

Trade in wild life and its products has been brought under the purview of the Act, and further restrictions have been imposed on the export trade of a number of animals, birds and their products. The export of rare and endangered species has been totally banned and a number of other products have been brought under quota system to regulate the export.

During 1978-79, a high-altitude National Park, known as 'Kanchanjunga National Park', was set up in Sikkim, and four sanctuaries of the Andaman and Nicobar Islands, three of Uttar Pradesh and one of Andhra Pradesh were declared as National Parks. On December 1, 1980 there were 202 sanctuaries, 47 zoological gardens and 19 national parks and States are being given financial assistance to manage them scientifically. The total area of national parks and sanctuaries at present is 75,763 sq. km., which works to about 10 per cent of the total forest area.

Project Tiger: The alarming decline in the number of tigers (which numbered 1,827 in 1972) led to the launching of the Project Tiger on 1st April, 1973, at the Corbett National Park (U.P.) to protect and perpetuate the tiger.

The Project with 11 (Tiger Reserves) project areas, covers a total area of 15,800 sq. kms. in 10 States. It is proposed to eliminate all the disturbing factors at least from a core area of 5,142 sq. kms. of 11 Project Tiger reserves. A census in 1979, showed 711 tigers in the project areas and 3,015 in the whole country.

Following National Development Council decision, the Scheme has been changed from Central Sector Scheme to Centrally Sponsored Scheme to be implemented on a 50:50 basis (cost sharing basis) by the Centre and the concerned States. For 1979-80 Rs. 6.35 million was provided for grants-in-aid to States.

For 1981-82 a sum of Rs. 14 million has been provided for the scheme in the budget. The scheme will be continued (at a cost of Rs. 100 million) in the Sixth Plan period. During 1982-83, the outlay on the Project is likely to be Rs. 20 million.

The World Wild Life Fund, under their 'Operation tiger', have promised one million dollars to Project Tiger (India).

The number of tigers in the Tiger Reserves have increased from 268 in 1972 in 9 Reserves to 757 in 1981 in 11 Reserves.

Wild Life Societies: The following are some of the important societies concerned with conservation in India: (1) Assam Valley Wild Life Society, Pratapgarh, TE, P.O. Sootea, Darang 784175, Assam; (2) The Bihar Natural History Society, Patna 800001; (3) Indian Board of Wild Life, Dept. of Agriculture, Krishi Bhavan, New Delhi 110001; (4) Gujarat Natural History Society, 57, Preetamnagar, Ellis Bridge, Ahmedabad 380001; (5) Peermade Wild Life Preservation Society, Stagbrook Estate, Peermade 685531, Kerala; (6) High Range Game Association, Munnar 685612, Kerala; (7) Bombay Natural History Society, Hornbill House, Shahid Bhagat Singh Road, Bombay 400001; (8) World Wild Life Fund Indian National Appeal, Hornbill House, Shahid Bhagat Singh Road, Bombay 400001; (9) Birdwatchers' Field Club of India, 32-A, Juhu Lane, Andheri, Bombay 400058; (10) Nilgiri Wildlife Association, Ootacamund 643001; (11) Wild Life preservation Society of India, 7, Ashley Hall, Dehra Dun 248001.

The World Wild Life Fund (India) has organised 492 Nature Clubs covering 14 States with over 10,000 members.

ANIMAL HUSBANDRY

ANIMAL husbandry occupies an important position in the economy of the country. India has about one-sixth of the world's cattle and one-half of world's buffalo population, numbering 179.4 and 61.7 million respectively (1977 census). The population of sheep, goats and poultry is 41 million, 75 million and 159 million respectively. The Government attaches great importance to livestock development programmes because this will enable the small and marginal farmers to augment their income through ancillary occupations, such as dairy, poultry, piggery, sheep etc. Consequently, considerable emphasis is being laid to bring the results of science and technology to the door-step of the farmer for improving their economy through animal husbandry.

Livestock development programmes have received increasing importance in agricultural development programmes in successive Five-Year Plans. As against a Plan Outlay of Rs. 141.9 million during the first Five-Year Plan, the Sixth Plan allocation in this sector is Rs. 604.6 million. The main strategies adopted for livestock development during the Sixth Plan are:

(i) Genetic improvement of nationally important cattle breeds by selective breeding in their home tracts and upgrading in other selected areas; (ii) Cross breeding of non-descript cattle on an extensive scale with recognised exotic dairy breeds, to develop adapted cross-breds, preferably by using frozen semen technology on a large scale; (iii) Progressive genetic improvement of important buffalo breeds in their home tracts by selective breeding and upgrading of non-descript buffaloes in other areas of improvement in milk yields; (iv) Development of feed and fodder resources in order to provide adequate nutrition to livestock; (v) Rapid development of quality poultry breeding stock within the country to boost production of eggs and poultry meat and to establish adequate marketing infrastructure; (vi) Large scale cross-breeding programme of indigenous sheep for improvement of its genetic make up in terms of production of wool and meat; (vii) Organisation of effective animal health services to support the production programme and prevention and control of prevalent livestock diseases; and (viii) Improvement of data base in respect of livestock products for planning and policy purposes.

Cattle and Buffalo Development: There has been a rapid increase in the number of highly productive cross-bred cattle and improved buffaloes in the country. Significant strides have been made in the use of frozen semen technology which ensures optimum use of available semen from bulls of high genetic merit as well as its preservation for future use. The number of artificial inseminations is expected to be about 7.0 million exceeding the target of 6.5 million during 1982-83. By the end of the Sixth Plan the targeted milk production is 38 million tonnes against base level figure of 30.20 million tonnes (1979-80) which implies an annual growth rate of 4.8 per cent. The anticipated milk production for the year 1982-83 is 34.6 million tonnes.

Nearly one-fifth of available breedable cattle/buffaloes are presently covered under 130 Intensive Cattle Development Projects and 550 Key Village Blocks in various States/Union Territories. In addition, there are a number of Central sector projects for livestock improvement operating in the different States. Some of the important ones are Central Cattle Breeding Farms, Herd Registration Scheme, Progeny Testing Programme in cattle breeding farms and in the field, Central Frozen Semen Production and Training Institute, Cross breeding of cattle and improvement of buffaloes using frozen semen technique outside Operation Flood areas and assistance to gaushalas for producing good quality indigenous and cross-bred heifers.

Progeny testing scheme for systematic production of progeny tested bulls is functioning in Punjab, Kerala and Assam where breeding efficiency of Holstein Friesian, Brown Swiss and Jersey cross-bred bulls is being evaluated under field conditions. Test Insemination Programme of the sixth batch of cross-bred bulls having Brown Swiss inheritance is in progress in Kerala. Milk recording programme of the progeny of first batch of bulls has been started in the State. Test Insemination Programmes of first batch Holstein Friesian and Jersey cross-bred bulls is expected to be completed in Punjab and Assam. Selection and inclusion of second batch of bulls in Test Insemination Programme is also in progress in these States.

In order to boost the milk production programme by improving cattle and buffalo breeds, a Centrally-sponsored scheme for cross breeding of cattle and improvement of buffaloes using frozen semen technique (outside Operation Flood areas) has been sanctioned for implementation in States of U.P., M.P., Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Maharashtra, Gujarat and Bihar. The programme will cover about four lakh breedable female population in each State when fully implemented.

Programmes for introducing latest technological advances in the field of cattle development are being implemented by the Government of India in collaboration with the Government of Switzerland in Kerala and Andhra Pradesh and in collaboration with Government of Australia in Haryana. As a result of the Indo-Swiss collaboration programme, a new high yielding breed of cattle namely "Sunandini" has been developed in Kerala State which has become extremely popular in Kerala and the adjoining areas.

Central Frozen Semen Production and Training Institute at Hessarghata, Bangalore, is being strengthened and expanded in order to produce high quality frozen semen doses as well as to train officers/staff in frozen semen technology. Up to November 1982 (1982-83) financial year 0.28 million of frozen semen doses and 0.098 million of chilled semen doses were produced and 26 veterinarians trained. The number of frozen semen doses is expected to exceed 0.4 million by the end of the year.

With a view to exploiting the resources available with Gaushalas, a Centrally-sponsored Scheme for assistance for production of high quality indigenous cross-bred heifers has been introduced. An allocation of Rs. 49.7 million has been made in the Sixth Plan for the scheme. The State Government will share 50 per cent of the cost of the programme.

In order to locate the superior germ plasm in the cattle farms as also breeding tracts, a Centrally-administered Herd Registration Scheme is functioning at four Centres: Rohtak (Haryana), Ahmedabad (Gujarat), Ongole (Andhra) and Ajmer (Rajasthan).

Poultry: There are only 26 chickens per 100 persons in India as against 540 in Denmark and 373 in Canada. The population of poultry was 159 million according to 1977 livestock census. The annual laying capacity of an Indian hen is about 60 small eggs in a year as against 180 large eggs of the American (exotic) breeds like White Leghorn.

Poultry production has made rapid strides in the last decade. The annual egg production increased from 2,500 million eggs in 1971 to about 13,000 million eggs in 1981-82. The production of broilers has touched a level of 35 million in 1981-82 compared to just 4 million in 1971. However, the per capita availability is very low when reviewed against world standards.

The Central Poultry Breeding Farms at Bombay, Bhubaneswar, Hessarghata (Bangalore) and Chandigarh are engaged in scientific breeding programme for supplying parent stock and hybrid chicks.

The Central Training Institute for Poultry Production and Management, Hessarghata, has expanded its programmes for inservice training of personnel of public and private sectors in specialised poultry fields.

The three Random Sample Test Units in Hessarghata, Bombay and Bhubaneswar conduct egg laying and broiler tests with a view to providing useful information to poultry farmers, hatcheries and breeding organisations on performance of various commercial layer and broiler stocks available in the country. Another Test Unit is being established near Gurgaon (Haryana).

The newly-established Central Duck Breeding Farm at Hessarghata, the only one of its kind in the country, has become fully operational and commenced production and supply of high egg producing Khaki Camphell breed ducklings. The farm is in a position to meet the full requirements of good quality ducklings for various duck development programmes in the country.

The feed Analytical Laboratory at Hessarghata is expected to analyse around 800 feed samples being received from public and private organisations during 1982-83. Of the other three newly sanctioned Regional Feed Analytical Laboratories, the Chandigarh laboratory has started functioning and the Bombay and Bhubaneswar laboratories are expected to start analytical work from 1983-84.

Sheep Development: Sheep development programmes aim at improving the quality and quantity of wool through cross-breeding with high-yielding exotic breeds. According to 1977 census there were 40.5 million sheep producing about 33 million kg. of raw wool, mostly of the carpet type. The country has imported over 14,000 Merino sheep from U.S.S.R. since 1971. During 1982, 58 Australian Merino Rams were imported by Gujarat which has the credit of evolving a fine wool producing strain of sheep through crossing of Patanwadi breed with Russian Merino.

The Central Sheep Breeding Farm, Hissar was set up in April 1969 to produce and supply pure Corriedale and cross-bred rams to various States for sheep development programmes and impart training to sheep development officers. During the ten years ending November 1982, 4,099 Corriedale and cross-bred rams have been supplied to States for upgrading local sheep.

Piggery Development: There are 77 State Pig Breeding Farms where pure exotic breeds of pigs as well as their crosses are being maintained. During the current year, it is proposed to augment the gene pool through import of about 250 exotic pigs for various State Farms. The eight regional bacon factories operating in the States of Andhra Pradesh, Bihar, Punjab, Uttar Pradesh, West Bengal, Kerala, Maharashtra, and Rajasthan are supplying quality pork and pork products to consumers.

Meat Production: The country produces around one million tonnes of meat from various livestock (cattle, buffaloes, pigs, sheep, goats etc). Significant progress has been made in recent years in the production of wholesome meat in the country. Slaughter houses have been modernised at Bombay, Goa and Durgapur and modern slaughter houses are also expected to come up soon in Madras Calcutta, Bangalore, Delhi and Hyderabad.

Livestock Health: With a view to minimising production losses du to disease and pests, efforts have been made to develop an efficient health cover infrastructure in the country. During 1982-83, abou 300 veterinary hospitals and dispensaries were set up bringing the total of such institutions to 13,600 by the end of the year. Abou 500 stockment centres/veterinary aid centres were also added in the current year bringing their total to 16,000.

During 1982-83, about 370 million doses of vaccines an diagnostic reagents were produced at 16 State Veterinary Biological Production Centres. With a view to ensuring supply of paten vaccines, antigens, etc. it is proposed to set up a Nationa Veterinary Biological Products Quality Control Institute. An Animal Disease Surveillance Cell at the Centre and Epidemiological Units in all States and Union Territories were being set up These agencies will collect, collate and disseminate information o prevalence of animal disease and forewarn the concerned areas Projects were also started for combating three cattle diseases c national importance viz. Tuberculosis, Brucellosis and contagiou Bovine pleuro pnemonia.

Feed and Fodder: Programmes for the introduction of high-yielding varieties and improved fodder production technology continued at the seven Regional Stations for Forage Production and Demonstration located at Hissar (Haryana), Kalyani (West Bengal), Suratgarh (Rajasthan), Gandhinagar (Gujarat), Alamadi (Tamil Nadu), Sechrenal (Jammu & Kashmir) and Hyderabad (Andhra Pradesh). These stations conducted over 5,000 demonstrations in the farmers' fields.

Over 2,900 quintals of seed were produced by these stations as against 2,000 quintals last year. Production of pasture legume seeds viz. stylosanthese species as well as sirato (Macrooptilium atropurpurem) was intensified and the State Forest Departments assisted in the multiplication of these seeds.

To popularise high-yielding varieties, a Central Project on Fodder Minikit Demonstration has been undertaken. Over 19,050 minikit demonstrations were organised in the farmers' fields during the *kharif* and *rabi* seasons. As this programme has become extremely popular, it has been extended to 22 States and Union Territories.

Equine Development: An Equine Development Board has been set up to advise Government on matters relating to equine development, registration of equine breeding studs and import of equine development activities in the country.

Out of the 123 stud farms which applied for registration, 86 were finally registered. Import of horses is allowed by the registered farms only.

Production of Various Crops, Livestock Products and Fish
(Achievements and targets)

Item	Unit	1950-51	1979-80	1980-81	1981-82	1982-83 Target	1982-83 Ant. Ach.	1983-84 Target	1984-85 Target
Milk	million tonnes	17.0	30.82	31.5	33.0	34.6	34.6	36.2	38.0
Eggs	million nos.	1,832	9,255	9,250	10,000	10,500	13,000	13,500	16,300
Wool	million kgs.	—	34	35	36	37	37	38	39
Meat	Lakh tonnes	—	8.2	8.9	9.6	9.9	10.0	10.5	12.3

DAIRY INDUSTRY

(See chapter on Animal Husbandry for details on cattle and buffalo breeding programmes)

As the Maharashtra Government milk distribution scheme in Bombay in 1947 got under way and the first large-scale pasteurisation and bottling dairy at the Aarey milk colony went into operation in 1950, India made a beginning towards systematic distribution of processed and bottled milk. Since then Government dairies have been set up in the capitals of all States and Union territories. The National Dairy Development Board and The Indian Dairy Corporation have given an impetus to the dairy industry.

Milk and milk products contribute about Rs. 8,993 million to the national income. Of the estimated 245 million cattle and buffaloes, only 89 million (36 per cent) are milch animals. Besides, the milk yield is 157 kgs. a year in the case of a cow and 504 kgs. a year in the case of buffalo. The highest average daily milk production per animal in milk, both for cows and buffaloes, is in Punjab which is only 2.28 kgs. and 3.99 kgs. per day respectively. The average annual milk production per cow is 4,154 kgs. in U.S.A., 3,959 kgs. in U.K. and 3,902 kgs. in Denmark.

India now ranks fourth in the world in the matter of milk production with about 33 million tonnes (1981-82). Nearly 60 per cent is marketed and the balance is used for home consumption.

Per Capita Consumption: The per capita consumption of milk and milk products varies from State to State.

The per capita availability of milk (1981-82) was estimated at around 131 gms. per head.

Dairy Plants: The total number of dairy plants in operation during 1981 was estimated to be 217 comprising 103 plants handling liquid milk, 39 milk product factories and 75 pilot milk schemes/rural dairy centres with an average throughput of some 7.25 million litres per day. The capacity utilisation has been estimated at 66.33 per cent. Recently there has been a spurt in milk production particularly in Maharashtra, Rajasthan, Andhra Pradesh, Madhya Pradesh, Tamil Nadu, Karnataka and Gujarat due to the Operation Flood Programme, which aims at restructuring the milk production, procurement, processing and marketing infrastructure in the country.

The **Operation Flood 1,** was launched on July 1, 1970, and completed by March 31, 1981. Already 2.6 million rural milk producers and their families benefit from it. Action centres in 18 rural milk sheds in ten States subsequently extended to cover nine more milksheds (bringing their total to 27) had been created, where the infrastructure for the procurement of rurally produced milk, its processing—its marketing in the four major urban milk markets—has been developed, with facilities for marketing the inputs needed for increased milk production to the milk producers. The two-tier cooperative organisations of the milk producers thus created in these rural action centres, own and operate feeder-balancing dairies (total capacity, 6.0 million litres per day), cattle field compounding plants (total daily capacity, 2,355 mt.), the animal health care facilities (309 mobile and 117 emergency veterinary units), the artificial insemination (6,026 A1 sub-centres located in villages) and the extension services are linked to a modern milk transportation system. Simultaneously milk processing and distribution by the modern dairies in the four major cities is being expanded.

Under **Operation Flood II,** in addition to the four major milk markets, modern milk marketing will now be organised in the other 144 cities in the country which had a population of over 100,000 in 1971. It is estimated that in these cities 52.9 million people, on an average, consume 7.8 million litres of milk per day and the equivalent to 2.0 million litres of milk daily in the form of milk products. The demand for milk in these cities is expected to increase to 11.2 million litres per day while that for milk products to 2.8 million litres (milk equivalent) per day by 1985, when the urban population involved will have increased to 65.1 million.

Most of the milk districts identified by the National Commission on Agriculture lie within 25 contiguous milkshed areas of potentially high and economic milk production. Under Operation Flood II, within each of these 25 milkshed areas (155 districts), a Cluster, Federation will be established of Milk Producers' Union; each Union usually will be comprised of 200-600 villiage cooperative societies. Thus, in all the 25 clusters to be formed (4 districts will have indepen-

FISHERIES

THE Arabian Sea and the Indian Ocean abound in vast untapped fisheries resources. Marine fishery can be broadly classified under three heads: Traditional non-mechanised fishing, coastal mechanised fishing and deep-sea fishing. Traditional non-mechanised fishing is carried out by the fishing community, mostly dealing in fresh water fish culture and accounts for 60 per cent of the current total marine catch. Deep-sea fishing is a recent development, started in the 60s of the present century, with Government backing. Trawlers and other deep-sea fishing vessels have been made available, meteorological guidance provided, bank loans given and processing and packaging facilities placed within easy reach for those needing them. Large units are encouraged to enter deep-sea fishing (beyond the 40 fathoms limit) not only to earn valuable foreign exchange but to exploit the hitherto untapped resources which, on a rough estimate, can yield 11 to 14 million tonnes against the present meagre catch of 2 million tonnes. Deep-sea fishing is considered today a major industry opening out a vast potential.

Extent of Resources: India has a long coast line of 7,517 kms. and an exclusive economic zone of 2.013 million sq. kms. which offer large stocks of the sardine group, the mackerel, the tuna and other scombroids, catfishes, the group of sharks and rays, Bombay duck, ribbonfishes, prawns, squids and cuttle-fishes, the pomfrets, solefish, the carangids, the perches, polynemids, sciaenids etc.

The country has an inland culturable water area of about 1.5 million hectares to raise indigenous and exotic carps, air-breathing fishes, hilsa, trouts etc. It also has a brackish water spread of about 1.42 million hectares, a portion of which could be brought under culture for raising prawns, mullet, milk fish, pearl spot etc. There are also good possibilities of producing shell-fishes, fin-fishes and algae through mariculture in the coastal belt.

India occupies eighth place in fisheries production in the world. Marine fisheries account for about 60 per cent of total production with 40 per cent contributed by inland fisheries. The present **per capita consumption** of fish is only 4.0 kg. a year against the desired consumption level of 31 kg. as recommended by the nutrition advisory committee on human nutrition.

An eight-fold increase in fish production is considered necessary to meet adequately the increasing demand for fish in the country.

Growth since Independence: From an estimated figure of 0.7 million tonnes in 1947 the catch increased to 2.42 million tonnes in 1981 of which 1.44 million tonnes were marine fish.

Development Programmes: At the end of 1980-81 there were about 16,462 mechanised fishing boats in operation as against only 13 at the commencement of the First Plan. Trawling deserve special mention, a method of fishing, which was practically unknown at the time of Independence, is now most popular.

The Government's policy towards deep-sea fishing industry is to encourage Indian entrepreneurs to introduce as many deep-sea fishing vessels as possible in the shortest possible time in order to optimally utilise the available fishing resources in the 200 miles Exclusive Economic Zone (EEZ). The present strength of owned commercial fishing fleet of 20 m. and above length is 68. In addition, at present, 55 fishing vessels are also operating under charter arrangement. In the Sixth Five Year Plan a target raising the number of deep-sea fishing vessels to 350 is envisaged.

Inland Fisheries: Under the Programme of Development of Aquaculture, 50 Fish Farmers Development Agencies (FFDAs) are functioning in the country, with the main objective of intensifying fish farming activity in tanks/ponds. The National Council of Applied Economic Research (NCAER) in their report on evaluation of FFDAs have reported that the impact of the FFDAs has been such that the fish farming activity has spread among the rural population as full time vocation offering them rich employment potential.

An Inland Fisheries Project with World Bank assistance has been taken up for implementation in 58 selected districts of West Bengal, Bihar, Orissa, M.P. and U.P. at a total cost of Rs. 379 million. The IDA's assistance will be to the tune of U.S. $20 million.

The project aims at development of intensive fish farming in 117,000 water area comprising tanks and ponds, establishment of 27 commercial fish seed hatcheries, designed to produce about 457 million quality fish seed per annum on full development. Fisheries Extension Training Centres are also being set up for training the extension staff of the FFDAs. The project is likely to generate an additional fish production of about 0.2 million tonnes per annum, offer full time job opportunities to more than 50,000 fish farmers with sustained income to support their family.

Production (1981-82)

(in tonnes)

States		Marine	Inland	Total
Andhra Pradesh	..	120.538	124.171	244.709
Assam	..	—	45.582	45.582
Bihar	..	—	80.536	80.536
Gujarat	..	216.740	19.063	235.803
Haryana	..	—	2.960	2.960
Himachal Pradesh	..	—	2.405	2.405
Jammu & Kashmir	..	—	9.541	9.541
Karnataka	..	149.955	47.862	197.817
Kerala	..	274.820	25.927	300.747
Madhya Pradesh	..	—	13.320	13.320
Maharashtra	..	284.850	24.601	309.451
Manipur	..	—	3.450	3.450
Meghalaya	..	—	989	989
Nagaland	..	—	4.300	4.300
Orissa	..	43.900	38.100	82.000
Punjab	..	—	3.000	3.000
Rajasthan	..	—	13.000	13.000
Sikkim	..	—	24	24
Tamil Nadu	..	235.820	165.000	400.820
Tripura	..	—	6.500	6.500
Uttar Pradesh	..	—	34.300	34.300
West Bengal	..	53.000	312.000	365.000
TOTAL STATES	..	13.79.623	976.631	2.356.254
Union Territories				
Andaman & Nicobar	..	1.910	—	1.910
Arunachal Pradesh	..	—	490	490
Chandigarh	...	—	15	15
Delhi	..	—	1.600	1.600
Goa, Daman & Diu	..	42.485	1.528	44,013
Lakshadweep	..	3.300	—	3.300
Mizoram	..	—	1.082	1.082
Pondicherry	..	13.853	1.423	15.276
TOTAL U.T.s	..	61.548	6.138	67.686
TOTAL ALL INDIA		1.441.171	982.769	2.423.940

Fish production during 1982-83 was expected to be 2.68 million tonnes, 1.65 million tonnes from marine sources and 1.02 million tonnes from inland sources

Job Opportunities: The marine and inland fisheries development programmes are labour intensive. It is estimated that the fisheries development programmes would generate additional employment of the order of about 0.5 million persons per year. The construction of fishing harbours at major and minor ports, which is an ongoing programme, likely to generate employment opportunities to more than 0.13 million persons.

Research: A multi-pronged research and technological effort is under way to double the present annual fish catch in the next few years.

The research activities are being carried on by the Central Marine Fisheries Research Institute and the Central Institute of Fisheries Technology, both located at Cochin and the Central Inland Fisheries Research Institute at Barrackpore. These institutes have their subordinate establishments also. The National Institute of Oceanography, the Central Institute of Fisheries Education, the Zoological Survey of India, some of the agricultural universities and conventional universities and some fisheries departments of the State Governments also carry out research in different disciplines of fishery science.

Exports: The exports of marine products during 1977-78 which was valued at Rs.1,810 million rose to Rs. 2,860 million in 1981-82. The quantity exported was 70,105 tonnes (1981-82).

For augmenting the exports of sea foods, the Government of India has set up a Marine Products Export Development Authority at Ernakulam, Cochin 682016.

Main Buyers: These exports are directed to the sophisticated markets of Japan, America, Europe and Australia.

Imports: There were no imports of fish during the years 1981 and 1982.

Sixth Plan: In the Plan for 1980-85 the principal objectives would be: (i) to step up the fish production, (ii) to organise the inland fish production based on individual family basis and on high labour, low-investment technology so as to improve the socio-economic conditions, (iii) to organise intensive marine fishing survey and promote exploitation, distributed equitably among the different sectors and (iv) to improve and diversify the processing and marketing facilities. A target of 3.5 million tonnes of fish production for this five-year period has been envisaged. The target of fish production in 1981-82 was 2,650 million tonnes. The outlay for 1982-83 for Central, Centrally sponsored and State schemes is about Rs. 678 million.

Fishing Harbours: Besides limited facilities for landing and berthing of fishing vessels already available at about 80 centres, medium size fishing harbours have been completed at 5 sites, and work on large size fishing harbours is in progress at Cochin, Madras, Bombay and Calcutta. First stage harbour works at Visakhapatnam have been completed in all respects and harbour has been commissioned. Cochin harbour has also been commissioned while the finishing works are in progress. Construction of medium size fishing harbours are also in progress at Malpe, Honnaver, Ratnagiri, Porbunder, Bhavanapadu, Mangalore, Chinnamuttam, Vollinokam and Digha.

With the World Bank assistance, construction of integrated marine fisheries projects including fishing harbour has also been taken up at Veraval and Mangrol in Gujarat and at Visakhapatnam Stage-II, Kakinada and Nizampatnam in Andhra Pradesh.

EDUCATION

THE number of universities in India rose from 47 in 1960 to 118 (108 universities and 10 institutions deemed to be universities) as in 1979. The number of colleges increased from 1,542 in 1960-61 to 4,460 in 1978-79 excluding pre-university, Intermediate and Junior Colleges.

The average growth rate of enrolment during the decade 1970-71 to 1979-80 was 4 per cent per annum. The growth rate which increased to 5.5 per cent in 1977-78 again came down to 1.2 per cent in 1979-80. During 1979-80 the total enrolment in the University education was 2.65 million against 2.62 million in the preceding year 1978-79.

The enrolment in Arts faculty decreased significantly while in all other faculties the enrolment growth has shown upward trend.

Table below shows growth rate of enrolment in various faculties:

Faculty	1978-79	1979-80	Growth rate in percentage
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Science	0.49	0.51	3.4
Commerce	0.49	0.52	4.6
Engineering	0.11	0.12	6.2
Medicine	0.111	0.112	0.5
Agriculture	0.0039	0.004	2.4
Veterinary Science	0.0007	0.0007	7
Law	0.17	.0.18	6.3

The University Grants Commission (UGC) in its survey revealed that 1,678 colleges (57 per cent) of the 2,923 affiliated colleges in the country have less than 500 students each and 520 colleges have students between 100 and 200. The percentage of students going in for higher education in all States is about 3 per cent.

Number of Illiterates in 1981 was 446 million as against 386 million in 1971. However, the percentage of literacy according to 1981 census rose to 36.17 per cent from 29.45 per cent in 1971. Adult illiterates were estimated to be about 100 million by 1977. Sixty-five million adults are to be covered under the adult education programme during the VI Plan (1978-83). The target for the year (1979-80) was about 4.5 million. A provision of Rs. 2,000 million has been made for Adult Education Programme in the Plan 1978-83 which represents nearly 10 per cent of the total plan provision for education. (See Chapter on Population.)

Adult Education: This programme is being implemented through various agencies such as State Governments/Union Territories, Voluntary Agencies, Universities, Colleges, Nehru Yuvak Kendras, etc. About 91,510 centres were functioning in the country as on April 1, 1980.

Some 632 voluntary agencies have been approved so far for financial assistance for running 29,000 centres in 17 States and five Union Territories.

68 Universities and 706 colleges were sanctioned funds by the University Grants Commission for running 8,890 adult education centres. Most of them are conducting surveys and organising discussions to determine the manner of their involvement and the size of the programme to be undertaken by them. Grants amounting to Rs. 3 million were sanctioned to these universities upto Oct. 30, 1980.

Type of Institutions (1979-80): Primary/Junior basic schools: 478,249; Middle/Senior basic schools: 114,720; High/Higher Secondary Schools: 46,043; Multipurpose Schools: N. A.; Training Schools: 859; Training Colleges: 501; Arts, Science (including research institutions) and Commerce Colleges: 3,336; Number of Universities: 108.

Teachers: Primary schools: 1,311,931; Middle Schools: 835,292; High/Higher secondary schools: 859,359; Universities, Arts and Science Colleges: N. A.; Percentage of trained teachers in the Primary and Middle Schools respectively was 86.8 and 88.9

Free Education: Education in classes I-V is free in Government schools and in schools run by local bodies. It is also free in classes VI-VIII in all States except for boys in Orissa and Uttar Pradesh

FISHERIES

THE Arabian Sea and the Indian Ocean abound in vast untapped fisheries resources. Marine fishery can be broadly classified under three heads: Traditional non-mechanised fishing, coastal mechanised fishing and deep-sea fishing. Traditional non-mechanised fishing is carried out by the fishing community, mostly dealing in fresh water fish culture and accounts for 60 per cent of the current total marine catch. Deep-sea fishing is a recent development, started in the 60s of the present century, with Government backing. Trawlers and other deep-sea fishing vessels have been made available, meteorological guidance provided, bank loans given and processing and packaging facilities placed within easy reach for those needing them. Large units are encouraged to enter deep-sea fishing (beyond the 40 fathoms limit) not only to earn valuable foreign exchange but to exploit the hitherto untapped resources which, on a rough estimate, can yield 11 to 14 million tonnes against the present meagre catch of 2 million tonnes. Deep-sea fishing is considered today a major industry opening out a vast potential.

Extent of Resources: India has a long coast line of 7,517 kms. and an exclusive economic zone of 2.013 million sq. kms. which offer large stocks of the sardine group, the mackerel, the tuna and other scombroids, catfishes, the group of sharks and rays, Bombay duck, ribbonfishes, prawns, squids and cuttle-fishes, the pomfrets, solefish, the carangids, the perches, polynemids, sciaenids etc.

The country has an inland culturable water area of about 1.5 million hectares to raise indigenous and exotic carps, air-breathing fishes, hilsa, trouts etc. It also has a brackish water spread of about 1.42 million hectares, a portion of which could be brought under culture for raising prawns, mullet, milk fish, pearl spot etc. There are also good possibilities of producing shell-fishes, fin-fishes and algae through mariculture in the coastal belt.

India occupies eighth place in fisheries production in the world. Marine fisheries account for about 60 per cent of total production with 40 per cent contributed by inland fisheries. The present **per capita consumption** of fish is only 4.0 kg. a year against the desired consumption level of 31 kg. as recommended by the nutrition advisory committee on human nutrition.

An eight-fold increase in fish production is considered necessary to meet adequately the increasing demand for fish in the country.

Growth since Independence: From an estimated figure of 0.7 million tonnes in 1947 the catch increased to 2.42 million tonnes in 1981 of which 1.44 million tonnes were marine fish.

Development Programmes: At the end of 1980-81 there were about 16,462 mechanised fishing boats in operation as against only 13 at the commencement of the First Plan. Trawling deserve special mention, a method of fishing, which was practically unknown at the time of Independence, is now most popular.

The Government's policy towards deep-sea fishing industry is to encourage Indian entrepreneurs to introduce as many deep-sea fishing vessels as possible in the shortest possible time in order to optimally utilise the available fishing resources in the 200 miles Exclusive Economic Zone (EEZ). The present strength of owned commercial fishing fleet of 20 m. and above length is 68. In addition, at present, 55 fishing vessels are also operating under charter arrangement. In the Sixth Five Year Plan a target raising the number of deep-sea fishing vessels to 350 is envisaged.

Inland Fisheries: Under the Programme of Development of Aquaculture, 50 Fish Farmers Development Agencies (FFDAs) are functioning in the country, with the main objective of intensifying fish farming activity in tanks/ponds. The National Council of Applied Economic Research (NCAER) in their report on evaluation of FFDAs have reported that the impact of the FFDAs has been such that the fish farming activity has spread among the rural population as full time vocation offering them rich employment potential.

An Inland Fisheries Project with World Bank assistance has been taken up for implementation in 58 selected districts of West Bengal, Bihar, Orissa, M.P. and U.P. at a total cost of Rs. 379 million. The IDA's assistance will be to the tune of U.S. $20 million.

The project aims at development of intensive fish farming in 117,000 water area comprising tanks and ponds, establishment of 27 commercial fish seed hatcheries, designed to produce about 457 million quality fish seed per annum on full development. Fisheries Extension Training Centres are also being set up for training the extension staff of the FFDAs. The project is likely to generate an additional fish production of about 0.2 million tonnes per annum, offer full time job opportunities to more than 50,000 fish farmers with sustained income to support their family.

Production (1981-82)

(in tonnes)

States	Marine	Inland	Total
Andhra Pradesh	120.538	124.171	244.709
Assam	—	45.582	45.582
Bihar	—	80.536	80.536
Gujarat	216.740	19.063	235.803
Haryana	—	2.960	2.960
Himachal Pradesh	—	2.405	2.405
Jammu & Kashmir	—	9.541	9.541
Karnataka	149.955	47.862	197.817
Kerala	274.820	25.927	300.747
Madhya Pradesh	—	13.320	13.320
Maharashtra	284.850	24.601	309.451
Manipur	—	3.450	3.450
Meghalaya	—	989	989
Nagaland	—	4.300	4.300
Orissa	43.900	38.100	82.000
Punjab	—	3.000	3.000
Rajasthan	—	13.000	13.000
Sikkim	—	24	24
Tamil Nadu	235.820	165.000	400.820
Tripura	—	6.500	6.500
Uttar Pradesh	—	34.300	34.300
West Bengal	53.000	312.000	365.000
TOTAL STATES	13.79.623	976.631	2.356.254
Union Territories			
Andaman & Nicobar	1.910	—	1.910
Arunachal Pradesh	—	490	490
Chandigarh	—	15	15
Delhi	—	1.600	1.600
Goa, Daman & Diu	42.485	1,528	44,013
Lakshadweep	3,300	—	3.300
Mizoram	—	1.082	1.082
Pondicherry	13.853	1.423	15.276
TOTAL U.T.s	61.548	6.138	67.686
TOTAL ALL INDIA	1.441.171	982.769	2.423.940

Fish production during 1982-83 was expected to be 2.68 million tonnes, 1.65 million tonnes from marine sources and 1.02 million tonnes from inland sources.

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Research: A multi-pronged research and technological effort is under way to double the present annual fish catch in the next few years.

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Free Education: Education in classes I-V is free in Government schools and in schools run by local bodies. It is also free in classes VI-VIII in all States except for boys in Orissa and Uttar Pradesh.

Compulsory Education: All the States except Bihar, Manipur, Meghalaya, Nagaland, Sikkim and Tripura have enacted legislation for compulsory education. As for the Union Territories, such legislation is available in Delhi, Andaman & Nicobar Islands and Chandigarh.

Kendriya Vidyalaya Sangathan: Total No. of Vidyalayas as in 1980-81: 323; No. of students (Aug. 1980): 244,197.

School Enrolment since 1950-51 (in million)

	1950-51	1978-79	1979-80 (Provisional)	1984-85 (Target)
Age group 6—11				
Enrolment:				
Classes I — V	19.155	68.60	72.2	83.2
Enrolment as percentage of age group population	4.26	8.165	8.34	9.5
Age group 11 — 14				
Enrolment:				
Classes VI — VII	3.120	17.96	18.7	25.7
Enrolment as percentage of age group population	1.27	3.794	3.84	5.0
Age group 6 — 14				
Enrolment:				
Class I — VIII	22.275	86.56	90.9	108.9
Enrolment as percentage of age group population	3.24	6.59	6.72	7.7

Expenditure on Education:

Expenditure during earlier Five Year Plans and Outlay for Sixth Plan

(Rs. in million)

Major Heads	Expenditure during earlier Five Year Plans	Sixth Plan (1980-85) outlay
1. General Education		
A. Elementary Education	10,050	9,050
Secondary Education	5,940	4,200
University Education	6,580	4,860
B. Adult Education	—	1,280
Cultural programmes	570*	840
Other educational programmes	3,710+	2,230
Total	26,850	22,460
2. Technical Education	4,460	2,780
Grand Total	31,310	25,240

*Expenditure for First Plan included under General education.
+Includes adult education.

Total Plan Outlay for Education and Culture for 1982-83: Rs. 1,380 million.

Budget Estimates for 1982-83: Rs. 1,380 million.

Indian Technical Personnel Abroad: According to the National Register (maintained by the Council of Scientific and Industrial Research), there are 3,614 scientists, 4,495 engineers, 639 technologists and 2,122 doctors abroad.

SUBJECTS OF STUDY

(Derived with permission from 'Directory to Subjects of Study at Indian Universities' published in the annual **Commonwealth Universities Yearbook** by the Association of Commonwealth Universities, London and **University Grants Commission,** New Delhi.)

This directory contains a list of selected subjects which may be studied at Universities in India, some in the departments or constituent colleges of universities themselves, some in colleges affiliated to universities, and others in both. The list is not exhaustive but it does cover most of the main subjects in which facilities for study or research are available. Many of the universities which provide courses for bachelor's or master's degrees in a subject also provide facilities for research in aspects of it which may lead to a doctorate.

Subjects marked † may, depending on the university, either (a) form a greater or lesser part of the course for a bachelor's degree, or (b) be studied for a master's degree, or (c) both.

Universities marked* in the article provide instructions upto the post-graduate level; 'm' and 'd' under the medicine list indicate Master's Degree (including MD) and Government Diploma respectively. Tech. stands for technology and Engg. for Engineering.

Accounting and taxes: Shivaji.

Adult education: *Diploma*: Rajasthan.

Aeronautical Engg.: *Bachelor's*: I.I.T. (Kanpur, Kharagpur, Madras), Punjab. *Master's:* I.I.T. (Bombay, Kanpur, Madras), Institute of Science.

Agricultural Engg.: *Bachelor's*: Allahabad, Bhagalpur (with soil conservation), Haryana Agri., G. B. Pant Univ. of Agri. and Tech., I.I.T. Kharagpur, J. L. Nehru Krishi Vish., Punjab Agri. (also Master's), Punjabrao Krishi, Udaipur. *Master's:* (Agri. Engg.) — Allahabad, Punjab Agri. *Diploma:* University of Agri. Sciences, Hebbal.

Agriculture: *Bachelor's*: Agra,* Allahabad,* Andhra Pradesh Agri.,* Annamalai, Assam Agri.,* Banaras,* Bhagalpur,* Bihar,* Calcutta,* G.B. Pant Univ. of Agri. and Tech.* (Previously U.P. Agri.), Gorakhpur,* Gujarat,* Haryana Agri.,* Himachal Pradesh,* J. L. Nehru Krishi,* Kalyani,* Kanpur,* Kerala,* Kurukshetra, Madras,* Madurai,* Mahatma Phule Krishi, Meerut,* Orissa Univ. of Agri. and Tech.,* Punjab,* Punjab Agri.,* Punjabrao Krishi,* Rajasthan, Ranchi,* Sardar Patel,* Saurashtra, South Gujarat,* Tamil Nadu Agri.,* Udaipur,* Univ. of Agri. Sciences,* Visva-Bharati.* *Diploma:* Assam Agri.

Agricultural Marketing: Shivaji.

Anaesthesiology/Anaesthetics: Agra d, Aligarh d, Allahabad d Andhra d, Banaras dm, Bangalore d, Baroda dm, Bombay m, Calcutta d, Delhi dm, Dibrugarh dm, Gujarat dm, Kanpur d, Karnataka dm, Kerala d, Lucknow d, Madras dm, Madurai d, Marathwada d, Nagpur d, Osmania d, Patna d, Post-graduate Research Inst. in Medicine m, Poona dm, Punjab dm, Punjabi d, Rajasthan dm Sambalpur d, Shivaji d, Utkal d.

Analytical Chemistry & Quality Assurance: Bombay.

Anatomy: Agra m, Andhra m, Banaras m, Baroda m, Bombay m Calcutta m, Delhi m, Dibrugarh m, Gujarat m, Indore m, Karnataka m, Kerala m, Madras m, Marathwada m, Mysore m, Osmania m Post-graduate Research Inst. in Medicine m, Punjab m, Rajasthan m, Sambalpur m, Shivaji m, Srivenkateswara m.

Ancient Indian History, Culture and Archaeology/Indology†: Agra Allahabad, Andhra, Banaras, Baroda, Bombay, Calcutta, Gorakhpur, Gujarat, Jabalpur, Karnataka, Kurukshetra, Lucknow, Madras, Marathwada, Mysore, Nagpur, Osmania, Punjab, Patna Poona, Rajasthan, Ravi Shankar, Saugar, Shivaji, Vikram, Visva-Bharati. *Diploma/Certificate*: Allahabad (Archaeology). Banaras Mysore.

Animal Husbandry: See 'Dairy Science' in this list

Anthropology†: Allahabad, Andhra, Bombay, Burdwan, Calcutta **Delhi, Dibrugarh, Gauhati, Gujarat Vidyapith (Social An**

thropology), Karnataka, Lucknow, Madras, Punjab, Poona, Punjabi (Social Anthropology), Ranchi, Ravi Shankar, Saugar, Sri Venkateswara, Utkal. *Diploma/Certificate:* Calcutta (applied anthropology), Madras, Ravi Shankar (applied anthropology and tribal welfare).

Applied Chemistry: *Master's*: Calcutta, Indore, Jabalpur, Kerala.

Applied Geology: *Master's*: Andhra, Banaras, Baroda, Dibrugarh, Jadavpur, Kharagpur, Nagpur, Osmania, Rajasthan, Ravi Shankar, Roorkee, Saugar.

Applied Physics: *Master's*: Andhra, Calcutta, Indore, Jabalpur.

Applied Sociology: Kashi Vidyapith.

Applied Statistics: *Master's*: South Gujarat.

Arabic†: Agra, Aligarh, Allahabad, Banaras, Bhopal, Bihar, Bombay (also diploma and certificate), Burdwan, Calcutta, Delhi, Gauhati, Gorakhpur, Gujarat, Jamia Millia, Jammu (certificate), Kerala, Lucknow, Madras, Nagpur, Osmania, Patna, Poona, Punjab, Rajasthan, Shivaji, Sri Venkateswara, Utkal, Visva-Bharati.

Arabic Culture & Civilization: See 'Islamic Studies' in this list.

Archaeology: See 'Ancient Indian History' in this list.

Architecture: *Bachelor's*: Bangalore, Baroda, Bhopal, Bombay, Calcutta, Delhi, Indian Inst. of Tech., Kharagpur, Jadavpur, Kerala, Madras, Nagpur, Osmania, Punjab, Roorkee. *Master's:* Banaras (arts and architecture), Baroda (town and country planning), Calcutta, Roorkee. *Diploma*: Banaras (arts and architecture), Gujarat.

Architectural Engg.: *Bachelor's*: Roorkee.

Assamese†: Burdwan, Dibrugarh, Gauhati.

Astronomy†: Lucknow, Osmania.

Audiology and Speech Therapy: *Bachelor's*: Bombay.

Automobile Engg.: *Master's*: Bombay.

Aviation Medicine: Bangalore d.

Bacteriology†: Andhra, Bihar, Bombay, Delhi, Gujarat, Kerala, Madras, Mysore, Osmania (MD), Poona, Rajasthan. *Diploma:* Punjab, Rajasthan.

Banking and Finance: Rajasthan.

Banking/Bank Administration: Aligarh, Baroda, Gujarat.

Basic Medical Sciences: Calcutta d.

Bengali†: Allahabad, Banaras, Burdwan, Calcutta, Delhi, Dibrugarh, Gauhati, Gujarat, Jadavpur, Lucknow, North Bengal, Punjab, Patna, Punjabi, Ravindra Bharati, Ranchi, Utkal, Visva-Bharati. *Diploma/Certificate:* Allahabad, Banaras, Delhi, Lucknow, Visva-Bharati.

Biochemistry†: Aligarh, Allahabad, Andhra, Banaras, Baroda, Bombay, Calcutta, Delhi, Dibrugarh (MD), J.L. Nehru Krishi, Kerala, Lucknow, Madras, Mysore, Nagpur, Osmania, Postgraduate Research Inst. in Medicine, Chandigarh, Punjab, Punjab Agri., Rajasthan, Sambalpur (MD). *Diploma:* Indian Inst. of Science, Bangalore.

Biophysics†: Banaras (MD), Bombay, Madras, Post-graduate Research Inst. in Medicine, Chandigarh, Punjab, Punjabi.

Botany†: Agra, Aligarh, Allahabad, Andhra, Annamalai, A. P Singh, Banaras, Bangalore, Baroda, Berhampur, Bhagalpur, Bhopal, Bihar, Birla Inst. of Tech. and Science, Pilani, Bombay, Burdwan, Calcutta, Delhi, Dibrugarh, Gauhati, G. B. Pant Univ. of Agri. and Tech., Gorakhpur, Gujarat, Haryana Agri., Indore, Jabalpur, Jammu, Jiwaji, Jodhpur, Kalyani, Kanpur, Karnataka, Kerala, Kurukshetra, Lucknow, Madras, Madurai, Magadh, Marathwada, Meerut, Mysore, Nagpur, North Bengal, Osmania, Patna, Poona, Punjab, Punjabi, Rajasthan, Ranchi, Ravi Shankar, Sambalpur, Sardar Patel, Saugar, Saurashtra, Shivaji, South Gujarat, Sri Venkateswara, Udaipur, Utkal, Vikram, Visva-Bharati.

Buddhist Studies: *Master's*: Delhi.

Business Administration: *Bachelor's*: Birla Inst. of Tech. and Science, Pilani, Madurai, Rajasthan. *Master's:* Allahabad, Andhra, Birla Inst. of Tech. and Science, Pilani, Cochin, Delhi, Himachal Pradesh, Jodhpur, Lucknow, Osmania, Poona, Punjab, Punjab Agri. (agri. business administration), Punjabi, Rajasthan, Shivaji, Udaipur.

Cambodian: Banaras.

Cardiology: Bombay m, Calcutta d, Madras m, P. G. Research Inst. in Medicine m.

Cardiothoracic Surgery: P.G. Research Inst. in Medicine M.Ch.

Cartography: *Diploma:* Nagpur, Osmania, Punjab.

Ceramics Tech.: *Bachelor's:* Calcutta, Osmania. *Master's:* Banaras, Osmania.

Chemistry†: Guru Nanak, Himachal Pradesh, I.I.T. (Bombay, Delhi, Kanpur, Kharagpur, Madras), Jadavpur, Punjab Agri., Roorkee and all universities listed above under 'Bombay'.

Child Health–Paediatrics: Agra d, Aligarh d, Allahabad d, Andhra d m, Banaras d m, Bangalore d, Baroda d m, Bombay m, Calcutta d, Delhi d m, Dibrugarh d m, Gujarat d m, Indore d m, Jiwaji d, Kanpur d, Karnataka d, Kerala d m, Lucknow d, Madras d m, Madurai d m, (M.Ch.), Marathwada d m, Nagpur d, Osmania d m, Patna d, Poona d, Punjab d, Punjabi d, Rajasthan d m, Sambalpur d, Shivaji d m, Sri Venkateswara d, Utkal d.

Chinese: Allahabad, Banaras, Calcutta, Delhi, Gorakhpur, Lucknow, Punjab, Punjabi, Saugar, Varanaseya Sans. Vish., Visva-Bharati.

Civil and Hydraulic Engg.: *Master's:* Indian Institute of Science.

Coal Mining Course: Industrial Training Instt. (Chandrapur, Nagpur)

Commerce and Business Management: *Bachelor's and Master's:* Agra, Aligarh, Allahabad, Andhra, Annamalai, A.P. Singh, Banaras, Bangalore, Baroda, Berhampur, Bhagalpur, Bhopal, Bihar, Bombay, Burdwan, Calcutta, Calicut (Master's only), Cochin (Master's only), Delhi, Dibrugarh, Gauhati, Gorakhpur, Gujarat, Indore, Jabalpur, Jammu, Jiwaji, Jodhpur, Kanpur, Karnataka, Kashmir, Kerala, Kurukshetra, Lucknow, Madras, Madurai (Bachelor's), Magadh, Marathwada, Meerut, Mysore, Nagpur, North Bengal, Osmania, Patna, Poona, Punjab, Punjabi (Bachelor's), Rajasthan, Ranchi (Bachelor's), Ravi Shankar, Sambalpur, Sardar Patel, Saugar, Saurashtra, Shivaji, South Gujarat, Sri Venkateswara (Bachelor's), Udaipur, Utkal, Vikram.

Communication Engg.: See 'Electronics' in this list.

Computer Science: *Bachelor's:* I.I.T., Kanpur. *Master's:* Bombay. *Diploma:* Bombay (c. management), I.I.T., Kharagpur, Jadavpur. *Certificate:* South Gujarat (c. programming).

Co-operation: *Master's:* Bhagalpur (rural economics and c). *Diploma:* Andhra (c. and rural studies), Baroda, Gujarat, Marathwada (co-operative management), Rajasthan, Shivaji.

Criminology and Forensic Science: Karnataka, Mysore, Saugar. *Diploma/Certificate*: Delhi (forensic sciences), Lucknow, Madras, Rajasthan, Saugar, Shivaji.

Dairy Science: *Bachelor's:* Allahabad (animal husbandry and dairying), Assam Agri (animal husbandry), Bhagalpur G.B. Pant Univ. of Agri. and Tech., Punjab, Punjab Agri. (animal husbandry), Punjabrao (animal husbandry), Sardar Patel. *Master's*: Allahabad, Assam Agri. (animal husbandry), Meerut (animal husbandry and dairying), Punjab, Sardar Patel, Udaipur. *Diploma*: Indian Instt. of Tech., Kharagpur.

Dance: See 'Music' in this list.

Dentistry: *Bachelor's:* Bangalore*, Bombay*, Calcutta, Gujarat*, Indore, Kerala*, Lucknow*, Madras*, Mysore*, Nagpur, Osmania, Patna, Punjab*, Punjabi. *Master's:* Universities marked*.

Dermatology: Andhra d m, Bombay m, Calcutta d, Delhi d, Gujarat m, Madras d m, Punjab d.

Dietetics/Nutrition: Baroda d, Calcutta d, Madras d, Osmania m, Punjab d.

Dogri: *Certificate*: Jammu.

Drama: *Bachelor's and Master's*: Rabindra Bharati. *Diploma*: Gujarat. Punjabi (dramatic arts). Rabindra Bharati.

Econometrics: See 'Applied Statistics' in this list

Economics†: Agra, Aligarh, Allahabad, Andhra, Annamalai, A.P. Singh, Banaras, Bangalore, Baroda, Berhampur, Bhagalpur, Bhopal, Bihar, Birla, Bombay, Burdwan, Calcutta, Delhi, Dibrugarh, Gauhati, Gorakhpur, Gujarat, Haryana Agri. (agri. economics), Himachal Pradesh (agri. economics), Indore, Jabalpore, Jadavpur, Jamia Millia Islamia, Jammu, Jiwaji, Jodhpur, Kalyani, Kanpur, Karnataka, Kashi Vidyapith, Kerala, Kurukshetra, Lucknow, Madras, Madurai, Marathwada, Meerut, Mysore, Nagpur, North Bengal, Osmania, Patna, Poona, Punjab, Punjab Agri., Punjabi, Rajasthan, Ranchi, Ravi Shankar, Sambalpur, Sardar Patel, Saugar, Saurashtra, Shivaji, S.N.D.T. Women's, South Gujarat, Sri Venkateswara, Udaipur, Utkal, Varanaseya Sanskrit Vish.. Vikram, Visva-Bharati.

Economics Applied: *Master's*: Andhra, Utkal.

Education: *B Ed/B T:* Agra*, Aligarh*, Andhra*, Annamalai* A.P. Singh, Banaras*, Bangalore*, Baroda*, Berhampur, Bhagalpur, Bhopal, Bihar, Bombay*, Burdwan, Calcutta*, Delhi*, Dibrugarh, Gauhati*, Gorakhpur*, Gujarat*, Gujarat Vidyapith*, Himachal Pradesh* Indore*, Jabalpur*, Jammu, Jiwaji*, Jodhpur, Kalyani*, Kanpur*, Karnataka*, Kerala*, Kurukshetra*, Lucknow*, Madras*, Madurai*, Marathwada*, Meerut*, Mysore*, Nagpur*, North Bengal, Osmania*, Patna*, Poona*, Punjab*, Punjabi*, Rajasthan*, Ranchi*, Ravi Shankar*, Sambalpur, Sardar Patel*, Saugar*, Saurashtra*, Shivaji*, S.N.D.T. Women's*, South Gujarat*, Sri Venkateswara*, Udaipur*, Utkal*, Varanaseya Sanskrit Vish., Vikram, Visva-Bharati*. *Master's:* Allahabad and universities marked*. *Diploma:* Baroda, Bihar, Bombay, Gauhati, Gujarat, Jabalpur, Kalyani, Karnataka, Lucknow, Nagpur, Patna, Poona, Rajasthan, Sardar Patel, Shivaji.

Educational Administration: *Diploma/Certificate:* Baroda, Nagpur Sardar Patel (school administration).

Educational Guidance & Counselling: *Diploma/Certificate*: Baroda, Punjab, Sardar Patel.

Educational Measurement & Evaluation: Nagpur d.

Educational & Vocational Guidance: Nagpur d.

Education & Community Psychology: *Master's:* Punjabi.

Electrology: See 'Medical Radiology & Electrology' in this list.

Electronics & Communication: Roorkee (B.E., M.E.). Kurukshetra (B.Sc.).

Endocrinology: P. G. Research Inst. in Medicine m.

Engineering (Chemical): *Bachelor's*: Bombay, Burdwan, Gujarat, I.I.T. (Bombay*, Delhi*, Madras*), Jadavpur*, Madras*, Nagpur*, Osmania*, Punjab*, Roorkee, Sambalpur* (see also oil technology). *Master's:* Indian Inst. of Science, Ranchi and Universities marked*.

Engineering, (Civil, Electrical or Mechanical): *Bachelor's*: Agra (electrical/mechanical), Aligarh*, Allahabad*, Andhra*, Annamalai*, A. P. Singh, Banaras*, Bangalore*, Baroda*, Bhagalpur — Bhopal (electrical, civil, mechanical), Bihar, Birla*, Bombay*, Burdwan, Calcutta*, Delhi*, Dibrugarh, Gauhati, G. B. Pant Univ. of Agri. and Tech., Gorakhpur, Gujarat*, I.I.T. (Bombay*, Delhi*, Kanpur*, Kharagpur*, Madras*), Indian Institute of Science (electrical communication, electrical and mechanical), Indore*, Jabalpur*, Jadavpur*, Jiwaji, Jodhpur*, Karnataka, Kerala*, Kurukshetra*, Madras*, Madurai, Marathwada*, Mysore*, Nagpur, North Bengal*, Osmania*, Patna*, Poona*, Punjab, Punjabi, Rajasthan*, Ranchi*, Ravi Shankar, Roorkee*, Sambalpur*, Sardar Patel*, Saurashtra, Shivaji*, South Gujarat, Sri Venkateswara*, Vikram. *Master's:* Indian Institute of Science and universities marked*. *Diploma:* Aligarh (civil, electrical, mechanical).

English†: Rabindra Bharati and all universities listed above under 'Economics'.

English as a Foreign Language: *Diploma:* Jiwaji, Calicut, Madurai (teaching of English), Shivaji (teaching English as a foreign language).

E. N. T.: P. G. Research Inst. in Medicine m.

Fermentation Tech.: *Master's:* Bombay.

Fibre Science: I.I.T., Delhi.

Financial and Industrial relations: Shivaji.

Fine Arts: (See also 'Painting'). *Bachelor's:* Banaras, Baroda, Kerala, Nagpur, Punjab, S.N.D.T., Visva-Bharati (History of Art). *Master's:* Baroda, Madras, Punjab. *Diploma/Certificate:* Allahabad (applied arts and crafts for women), Banaras, Gujarat, Rabindra Bharati, Visva-Bharati.

Fisheries Tech.: See 'Marine Biology' in the list.

Folklore Studies: *Diploma:* Rajasthan.

Food Tech.: *Bachelor's*: Andhra, Bombay, Jadavpur. *Master's:* Bombay, Jadavpur, Mysore.

Forensic Medicine Science: (See also Criminology): Bombay d, Mysore d m, Osmania d m, Sambalpur m.

French: Agra, Aligarh, Allahabad, Annamalai, Banaras, Bangalore, Baroda, Bombay, Burdwan (also bachelor's), Calcutta, Delhi, Gauhati, Jadavpur, Jodhpur, Karnataka, Kurukshetra, Lucknow, Madras, Madurai, Mysore, Nagpur, Osmania, Poona, Punjab, Punjabi, Rajasthan, Udaipur, Utkal, Varanaseya Sans. Vish., Visva-Bharati. *Master's:* Agra, Annamalai, Bombay, Calcutta, Karnataka, Madras, Madurai, Poona.

Furnaces & Refractories Tech.: *Master's:* Madras, Osmania.

Gastro-Enterology: P. G. Research Inst. in Medicine m.

General Medicine: P.G. Research Inst. in Medicine m.

Genito-Urinary Surgery: P.G. Research Inst. in Medicine m.

Geography†: Agra, Aligarh, Allahabad, A.P. Singh, Banaras, Baroda, Bhagalpur, Bombay, Burdwan, Calcutta, Delhi (Human Geography also), Dibrugarh, Gauhati, Gorakhpur, Gujarat, Indore, Jabalpur, Jamia Millia, Jiwaji, Jodhpur, Kanpur, Karnataka, Kurukshetra, Madras, Mysore, Nagpur, North Bengal, Osmania, Punjab, Patna, Poona, Punjabi, Rajasthan, Ranchi, Ravi Shankar, Sardar Patel, Saugar, Saurashtra, Shivaji, S.N.D.T., Udaipur, Utkal, Vikram, Visva-Bharati.

Geology†: Agra, Aligarh, Andhra, Annamalai, A.P. Singh, Banaras, Bangalore, Baroda, Bombay, Burdwan, Calcutta, Delhi, Dibrugarh, Gauhati, Gujarat, I. I. T. (Bombay, Kharagpur), Jabalpur, Jadavpur, Jammu, Karnataka, Kerala, Lucknow, Madras, Meerut, Mysore, Nagpur, Osmania, Patna, Poona, Punjab, Rajasthan, Ranchi, Ravi Shankar, Roorkee, Saugar, Shivaji, Sri Venkateswara, Udaipur, Utkal, Vikram.

Geophysics†: *Bachelor's:* Andhra, Banaras, Kharagpur (also Diploma), Osmania, Roorkee. *Master's:* Andhra, Kharagpur.

German: Jadavpur (also bachelor's), Kerala, Marathwada, Sardar Patel, South Gujarat, Vikram and Universities named under 'French' above except, Annamalai, Jodhpur, Kurukshetra. *Master's:* Agra, Banaras, Bombay, Calcutta, Karnataka, Poona.

Glass, Tech.: *Master's:* Banaras.

Greek†: Agra, Allahabad, Bombay, Burdwan, Calcutta.

Gujarati†: Allahabad, Baroda, Bombay, Delhi, Gujarat, Gujarat Vidyapith, Sardar Patel, Saurashtra, S.N.D.T., South Gujarat. *Diploma/Certificate:* Agra, Allahabad, Delhi.

Gynaecology/Obstetrics: Agra d m, Aligarh d, Allahabad d, Andhra d m, Banaras m, Bangalore d, Baroda d m, Bihar d, Bombay m, Calcutta d m, Delhi d m, Dibrugarh d m, Gujarat d m, Indore m, Jiwaji d, Kanpur d, Karnataka d m, Kerala d m, Lucknow d, Madras d m, Madurai d, Marathwada m, Nagpur d m, Osmania d m, Patna d, Poona d m, Post-Graduate Research Inst. in Medicine m, Punjab d m, Punjabi d m, Rajasthan, Sambalpur m, Shivaji d m, Sri Venkateswara d, Utkal d.

Hebrew†: Agra, Allahabad, Bombay, Burdwan, Calcutta, Madras, Punjab.

High Voltage Engg.: *Master's:* Indian Institute of Science.

Highway & Marine Engg. Structures: *Bachelor's:* Andhra. *Master's:* Karnataka.

Hindi†: Cochin, Calicut, Gujarat Vidyapith, Guru Nanak and all Universities listed above under 'Economics' except Berhampur, Dibrugarh, Jadavpur, Sambalpur.

History†: Rabindra Bharati and all Universities listed above under Economics' except Haryana Agri., Punjab Agri.

Home Science (Home Economics, Home Arts): *Bachelor's:* Agra, Allahabad, Andhra,* Bangalore, Baroda*, Bhopal,* Bombay, Delhi*, G. B. Pant University of Agri. and Tech., Gujarat,* Indore, Jabalpur,* Madras,* Madurai, Karnataka,* Nagpur,* Punjab,* Punjab Agri.,* Saugar, Sardar Patel, S.N.D.T.,* Udaipur. *Master's:* Sri Venkateswara and Universities Marked.* *Diploma:* Calcutta, G. B. Pant University of Agri. and Tech.

Horticulture: *Bachelor's:* Bhagalpur, Haryana Agri. *Master's:* Allahabad, Assam Agri., Banaras, Bhagalpur, Haryana Agri., J. L. Nehru Krishi, Kalyani, Madras, Meerut, Nagpur, Udaipur. *Diploma:* Madras.

Hygiene: Bombay (doctorate).

Indian Philosophy & Religion†: Banaras, Kurukshetra, Madras, Visva Bharati. *Diploma/Certificate:* Allahabad, Banaras (Indian Philosophy and Culture).

Indology: See 'Ancient Indian History' in this list.

Industrial Electronics: *Master's*: Kharagpur.

Industrial Health: Calcutta d, Gujarat d.

Industrial Management: Allahabad, Bombay, Cochin, Delhi, Indian Inst. of Science, I.I.T. (Madras), Bangalore, Kerala, Madras, South Gujarat.

Intermediates and Dyes Tech. (Pigments, paints and varnishes and plastics): *Bachelor's and Master's:* Bombay.

Internal Combustion Engg.: *Master's*: Indian Institute of Science.

Islamic Studies (Arab Culture and Civilization†): Aligarh, Bombay, Calcutta, Gujarat, Lucknow, Osmania.

Italian: Calcutta, Delhi; *Master's*: Agra.

Japanese: Banaras, Visva-Bharati.

Journalism: *Bachelor's:* Banaras, Bangalore, Berhampur, Calicut, Jabalpur, Maharshi Dayanand, Marathwada, Mysore, Nagpur, Osmania, Pune, Punjab, Punjab Agricultural, Punjabi, Ravi Shankar. *Masters:* Bangalore, Calcutta, Kerala, Madras, Madurai Kamaraj, Nagpur, Osmania. *Certificate/Diploma:* Aligarh, Calcutta, Garhwal, Gauhati, Jabalpur, Madras, Madurai Kamaraj, Pune, Rajasthan, Saurashtra, Shivaji.

Kannada†: Bangalore, Bombay, Karnataka, Madras, Mysore, Osmania, Poona, Shivaji. *Diploma/Certificate:* Annamalai, Bangalore, Karnataka, Madras.

Kashmiri: *Certificate:* Jammu.

Labour/Social Welfare: *Degree/Diploma*: Berhampur, Bhagalpur, Bombay, Calcutta, Gujarat, Patna, Punjab (industrial relations and labour welfare), Rajasthan, Ravi Shankar (industrial sociology, labour welfare and labour administration), Udaipur (labour law, labour welfare and personnel management), Utkal (social and labour welfare).

Laryngology & Otology: See 'Otorhinolaryngology' in this list.

Latin†: Agra, Allahabad, Bihar, Bombay, Burdwan, Calcutta Gauhati, Madras, Nagpur, Poona, Punjab, Shivaji, Utkal.

Law: *Bachelor's:* Agra, Aligarh,* Allahabad,* Andhra,* A.P. Singh,* Banaras,* Bangalore,* Baroda,* Berhampur, Bhagalpur, Bhopal, Bihar,* Bombay,* Calcutta,* Delhi,* Dibrugarh,* Gauhati,* Gorakhpur,* Gujarat,* Himachal Pradesh,* Indore,* Jabalpur,* Jammu, Jiwaji,* Jodhpur,* Kanpur, Karnataka,* Kerala,* Kurukshetra, Lucknow,* Madras,* Magadh, Marathwada,* Meerut,* Mysore,* Nagpur,* Osmania,* Patna,* Poona,* Punjab,* Punjabi, Rajasthan,* Ranchi, Ravi Shankar, Sambalpur,* Sardar Patel, Saugar,* Saurashtra,* Shivaji, South Gujarat,* Sri Venkateswara, Udaipur,* Utkal,* Vikram.* *Master's:* Universities marked* and Cochin. *Diploma:* Gorakhpur, Gujarat (labour law and practice; and also taxation law and practice), Jodhpur (labour law), Rajasthan (legislative res. and drafting; also taxation laws and practice), Shivaji (income tax, sales tax, labour laws, insurance and banking law, cooperation law, mercantile law), Udaipur (labour law, labour welfare and personnel management).

Leather Tech.: *Bachelor's*: Calcutta, Madras. *Master's*: Madras.

Library Science: *Bachelor's:* Aligarh, Andhra, A. P. Singh, Banaras, Baroda, Bombay, Burdwan, Delhi, Gauhati, Gujarat, Jadavpur, Jiwaji, Karnataka, Kerala, Kurukshetra, Lucknow, Madras, Marathwada, Mysore, Nagpur, Osmania, Punjab, Punjabi, Rajasthan, Saugar, Shivaji, S.N.D.T., Sri Venkateswara, Vikram. *Master's:* Andhra, Aligarh, Banaras, Bombay, Delhi, Karnataka, Madras, Osmania, Vikram. *Diploma/Certificate:* Burdwan, Calcutta, Madras, Madurai, Shivaji, S.N.D.T., Varanaseya Sans. Vish.

Linguistics†: Agra, Aligarh Annamalai, Baroda, Bombay, Burdwan, Calcutta, Delhi, Gujarat, Gujarat Vidyapith, Jabalpur, Karnataka, Kerala, Kurukshetra, Lucknow, Mysore, Osmania, Poona, Ravi Shankar, Saugar, Shivaji, Visva-Bharati. *Diploma/Certificate:* Aligarh, Annamalai, Baroda (applied linguistics), Delhi, Karnataka, Kerala, Madurai, Osmania, Punjabi, Ravi Shankar (Phonetics).

Local Self Govt.: *Diploma*: Nagpur.

Maithili†: Bihar, Patna.

Malayalam†: Calicut, Delhi, Kerala, Madras. *Diploma/Certificate*: Aligarh, Annamalai, Madras.

Management Science: Bombay, Madras.

Marathi†: Agra, Allahabad, Baroda, Bombay, Gujarat, Indore, Jabalpur, Jiwaji, Karnataka, Lucknow, Marathwada, Nagpur, Osmania, Poona, Saugar, S.N.D.T., Vikram. *Diploma/Certificate:* Agra, Allahabad, Banaras, Delhi, Lucknow.

Marine Biology & Fisheries†: Calicut, Univ. of Agri. Sciences (Bangalore) (Fisheries Science), Annamalai, Cochin (Oceanography also, only master's). *Diploma:* Shivaji (Marine Biology), Univ. of Agri. Sciences, Bangalore (fish processing technology).

Material Science Engg.: *Bachelor's*: I.I.T., Kanpur.

Maternity & Child Welfare: Calcutta d.

Mathematics†: Guru Nanak, Haryana Agri., Himachal Pradesh. I.I.T. (Bombay, Delhi, Kanpur, Kharagpur, Madras), Jadavpur, Jamia Millia, Jammu, Punjab Agri., Roorkee and all universities listed above under Botany.

Mathematics applied†: (see also 'Computer Science' above). *Master's:* Andhra, Calcutta, Indore, Jabalpur, Roorkee.

Medical Laboratory Tech.: Bombay d.

Medical Pathology & Bacteriology: Andhra m, Punjab d, Rajasthan m.

Medical Radiodiagnosis/Radiotherapy: Aligarh d, Banaras d, Baroda d, Bombay d, Calcutta d, Delhi d, Karnataka d, Madurai d. Nagpur d, Patna d, Poona d, Punjab d, Rajasthan d.

Medical Radiological Diagnosis: Nagpur d, Rajasthan d.

Medical Radiological Therapy: Rajasthan d.

Medical Radiology: Aligarh d, Baroda d, Karnataka d, Madurai d, Punjab d, Patna d.

Medical Radiology & Electrology: Agra d, Allahabad d. Baroda d, Bombay d, Gujarat d, Jiwaji d, Kanpur d, Kerala d, Lucknow d, Osmania d, Poona d.

Medicine (MBBS, MD and MS): Agra, Aligarh, Allahabad, Andhra, A. P. Singh, Banaras, Bangalore, Baroda, Bhagalpur (only MBBS), Bihar, Bombay, Calcutta, Delhi, Dibrugarh, Gauhati,* Gujarat, Indore, Jabalpur, Jiwaji, Kanpur, Karnataka, Kerala, Lucknow, Madras, Madurai, Marathwada, Meerut,* Mysore, Nagpur, North Bengal,* Osmania, Patna, Poona, Punjab, Punjabi, Rajasthan, Ranchi,* Ravi Shankar,* Sambalpur, Saurashtra, Shivaji, South Gujarat,* Sri Venkateswara, Utkal.

Medicine (Ayurvedic/Indian): *Bachelor's*: Andhra, Bangalore, Gujarat, Indore, Jabalpur, Jammu, Jiwaji, Karnataka, Kerala, Madras, Madurai, Marathwada, Mysore, Nagpur, Osmania, Poona, Rajasthan, Ravi Shankar, Saugar. *Dyam:* Banaras.

Medicine (Unani): *Bachelor's*: Aligarh, Osmania.

Metallurgical Engg.: *Bachelor's*: Banaras,* Baroda, Burdwan. Calcutta,* I. I. T. (Bombay,* Kanpur,* Kharagpur,* Madras*), Jadavpur, Madras, Nagpur, Punjab, Poona,* Rajasthan, Ravi Shankar, Roorkee,* Sambalpur. *Master's:* Andhra (ore-dressing), Ranchi and Universities marked.*

Metallurgy: *Bachelor's and Master's:* Indian Institute of Science, Roorkee.

Meteorology: *Master's:* Andhra.

Microbiology†: Annamalai, Banaras, Baroda. Bombay, Delhi, Gujarat, Haryana Agri., Karnataka, Madras (MD), Punjab, Punjab Agri., P. G. Research Inst. in Medicine, Rajasthan, Saurashtra, South Gujarat.

Middle Eastern Languages: Mysore.

Military Science†: Agra, Allahabad (defence studies), Gorakhpur. Jiwaji, Kurukshetra, Lucknow, Meerut, Poona, Punjab, Punjabi.

Mining Engg.: *Bachelor's:* Banaras, Calcutta, I. I. T. Kharagpur, Jodhpur, Madras, Osmania, Ravi Shankar. *Master's:* Banaras, I. I. T. Kharagpur, Jodhpur.

Mongolian: Banaras.

Musicology: *Diploma:* Banaras, Baroda, Calcutta.

Music: *Bachelor's:* Annamalai, Banaras, Baroda, Calcutta, Delhi, Indore, Kerala, Madurai, Mysore, Rabindra Bharati (also dance), S.N.D.T., Sri Venkateswara, Visva-Bharati. *Master's:* Banaras, Baroda, Delhi, Indira Kala Sangit (also dance), Indore, Jabalpur, Kerala, Madras, Mysore, Nagpur, Punjab, Ravindra Bharati (also dance), Rajasthan, Sri Venkateswara. *Diploma/Certificate:* Agra (also Indian music), Allahabad (Indian Music), Banaras, Baroda, Bombay (Hindustani vocal classical), Burdwan, Delhi (Hindustani music or Karnataka music), Gujarat (also dancing), Indira Kala Sangit (also dance), Madras, Patna, Poona, Punjabi, Rabindra Bharati (also dance), Saugar (military music), Saurashtra, Varanaseya Sans. Vish., Visva-Bharati (music, dance and vocal music).

Naval Architecture: *Bachelor's:* Kharagpur.

Nephrology: Madras m, P. G. Research Inst. in Medicine m.

Neurology: Bombay m, Madras m, National Instt. of Mental Health & Neuro Sciences, Bangalore.

Neurosurgery: Bangalore m, Bombay m, Madras m, P. G. Research Inst. in Medicine m., National Instt. of Mental Health & Neuro Sciences, Bangalore.

Nursing: *Bachelor's:* Bombay, Delhi, Gujarat, Indore, Kerala, Madras, Osmania, Poona, Punjab, Rajasthan, S.N.D.T. *Master's:* Delhi, Madras.

Nutrition: See 'Dietetics' in this list.

Occupational Therapy: *Bachelor's:* Bombay, Nagpur.

Oceanography: *Master's:* Andhra, Kerala.

Oils, Fats and Waxes Tech.: *Bachelor's:* Bombay, Nagpur, Osmania.

Operational Research: *Master's:* Delhi.

Opthalmology (Ophthalmic Medicine & Surgery): Agra d m, Aligarh d, Allahabad d, Andhra d m, Banaras d m, Bangalore d, Baroda d, Bombay m, Calcutta m, Delhi d m, Dibrugarh, d m, Gujarat d m, Indore d m, Jiwaji d, Kanpur d, Karnataka d, Kerala d m, Lucknow d, Madras d m, Madurai d, Marathwada d m, Mysore d, Nagpur d, Osmania d m, Patna d, Poona d m, Punjab d m, P. G. Research Inst. in Medicine m, Punjabi d m, Rajasthan d m, Sambalpur m, Saurashtra d, Shivaji d m, Shri Venkateswara d, Utkal d m.

Oriental Learning: *Bachelor's:* Bihar, Osmania, Sambalpur, Utkal. *Master's:* Bihar, Rajasthan. *Diploma:* Nagpur, Osmania.

Oriya†: Berhampur, Burdwan. Sambalpur, Utkal, Visva-Bharati. *Diploma/Certificate:* Visva-Bharati.

Orthopaedic Surgery: Agra d, Aligarh d, Allahabad d, Andhra m, Banaras d m, Baroda m, Bombay m, Delhi m, Gujarat m, Kanpur d, Karnataka d m, Kerala d m, Lucknow d, Madras d m, Madurai d, Poona d m, P. G. Research Inst. in Medicine m, Rajasthan d m. Sambalpur d, Shivaji d m, Utkal d.

Otorhinolaryngology: Aligarh d, Allahabad d, Andhra d m, Banaras d m, Baroda d m, Bombay m, Calcutta d, Delhi d m, Dibrugarh d m, Gujarat d m, Indore m, Kanpur d, Karnataka d m, Kerala d, Lucknow d, Madras d m, Madurai d, Osmania d, Patna d, Poona m, Punjab d, Rajasthan d m, Sambalpur m, Shivaji d m, Sri Venkateswara d, Utkal d.

Paediatrics: See 'Child Health' in this list.

Painting: *Bachelor's:* Indira Kala Sangit, Meerut, S.N.D.T., Visva-Bharati. *Master's :* Agra, Indira Kala Sangit, Meerut, Rajasthan, Udaipur, Vikram. *Diploma/Certificate:* Allahabad, Annamalai, Banaras, Baroda, Gujarat, Indira Kala Sangit, Rabindra Bharati.

Paints & Varnishes Tech.: *Bachelor's:* Osmania.

Pali†: Banaras, Baroda, Bombay, Burdwan, Calcutta, Gujarat, Jabalpur, Kurukshetra, Marathwada, Nagpur, Patna, Poona, Shivaji, Visva-Bharati. *Diploma/Certificate :* Lucknow, Visva-Bharati.

Pathology: Agra m, Andhra m, Banaras m, Baroda m, Bombay m, Delhi m, Dibrugarh d m, Gujarat m, Indore m, Karnataka m, Kerala m, Madras m, Marathwada m, Mysore m, Osmania m, Poona m, P. G. Research Inst. in Medicine m, Punjab m, Punjabi m, Rajasthan m, Sambalpur m, Shivaji m.

Pathology Clinical: Agra d, Aligarh d, Allahabad d, Andhra d, Banaras d, Bangalore d, Baroda d, Bihar d, Indore d, Kanpur d, Karnataka d, Kerala d, Lucknow d, Madras d, Osmania d, Patna d, Poona d, Rajasthan d, Shivaji d, Sri Venkateswara d, Utkal d.

Pearl Culture: Central Marine Fisheries Research Instt., Tuticorin 628001.

Persian†: Agra, Aligarh, Allahabad. Banaras, Baroda, Bihar, Bombay (also certificate), Burdwan, Calcutta, Delhi, Gauhati, Gorakhpur, Gujarat, Jabalpur, Jamia Millia, Jammu (certificate), Karnataka, Lucknow, Madras, Mysore, Nagpur, Osmania, Punjab, Patna, Poona, Punjabi, Rajasthan, Ravi Shankar, Saugar, Saurashtra, Shivaji, Sri Venkateswara, Utkal, Visva-Bharati.

Petro-chemicals Tech.: *Master's:* Kharagpur.

Pharmaceutical Business Management: Bombay.

Pharmaceuticals and Fine Chemicals Tech.: *Bachelor's:* Bombay, Osmania. *Master's :* Bombay, Osmania.

Pharmacology: Agra m, Andhra m, Banaras m, Baroda m, Bombay m, Delhi m, Dibrugarh m, Gujarat m, Indore m, Karnataka m, Kerala m, Madras m, Marathwada m, Mysore m, Osmania m, Poona m, P. G. Research Inst. in Medicine m, Punjab m, Punjabi m, Rajasthan m, Sambalpur m.

Pharmacy: *Bachelor's:* Andhra,* Banaras,* Bangalore, Birla,* Bombay,* Gujarat,* Jadavpur,* Jodhpur, Kerala, Madras,* Madurai, Mysore, Nagpur,* Punjab,* Saugar,* Shivaji. *Master's :* Universities marked.* *Diploma/Certificate :* Gujarat, Poona, Punjab.

Philosophy: Gujarat Vidyapith, Rabindra Bharati and all Universities listed above under 'Economics' except Berhampur, Birla, Himachal Pradesh, South Gujarat.

Photogrammetric Tech.: *Master's:* Roorkee.

Physical Education: *Bachelor's*: Bangalore, Jiwaji, Kalyani, Madras, Madurai, Punjab, Punjabi, Ravi Shankar, Shivaji. *Master's:* Jiwaji, Madras, Punjab, Punjabi. *Diploma :* Andhra, Banaras, Bangalore, Gujarat, Jabalpur, Jiwaji, Kalyani, Lucknow, Madras, Nagpur, Osmania, Punjabi, Shivaji (also certificates).

Physics†: Calicut, Cochin, Himachal Pradesh, Indian Inst. of Science, I.I.T. (Bombay, Delhi, Kanpur, Kharagpur, Madras), Jadavpur, Jammu, Roorkee and all Universities listed above under 'Botany' except Haryana Agri.

Physiology: Agra m, Andhra m, Banaras m, Baroda m, Bombay m, Calcutta m, Delhi m, Dibrugarh m, Gujarat m, Indore m, Karnataka m, Kerala m, Madras m, Marathwada m, Mysore m, Osmania m, Punjab m, Punjabi m, Rajasthan m, Sambalpur m, Shivaji m, Sri Venkateswara m.

Physiotherapy: *Bachelor's:* Baroda, Bombay (Physical Therapy).

Planning: *Master's:* Calcutta (City and Regional Planning), Kharagpur (Town and Regional Planning). *Diploma :* Calcutta (Town and Country Planning). *Bachelor's :* Madras.

Plastic Surgery: Bombay m, Madras m, Nagpur m, P.G. Research Inst. in Medicine m.

Plastic & Rubber Tech.: *Bachelor's:* Bombay, Calcutta.

Polish: Delhi.

Political Science†: All Universities listed under 'Economics' except Haryana Agri., Punjab Agri. and South Gujarat.

Portuguese: Bombay (Bachelor's and Master's).

Prakrit†: Allahabad, Baroda, Bihar, Gujarat, Jabalpur, Kurukshetra, Lucknow, Nagpur, Visva-Bharati. *Diploma:* Mysore.

Preventive & Social Medicine: Banaras m. Baroda m. Bombay m. Gujarat m. Indore m. Marathwada m. Poona m. Rajasthan m. Sambalpur m. Shivaji m.

Psychiatry: P.G. Research Inst. in Medicine m.

Psychiatric Nursing: National Instt. of Mental Health & Neuro Sciences. Bangalore.

Psychiatric Social Work: Bangalore m, National Instt. of Mental Health & Neuro Sciences, Bangalore.

Psychological Medicine: Bangalore d m, Bombay d m, Calcutta d, Gujarat d, Karnataka d, Mysore d, Rajasthan d, National Instt. of Mental Health & Neuro Sciences, Bangalore.

Psychology†: Guru Nanak and all Universities listed under 'Economics' except Berhampur, Birla, Dibrugarh, Haryana Agri., Himachal Pradesh, Jadavpur, Jammu, Jiwaji, Punjab Agri., Sambalpur, Varanaseya Sans. and Visva-Bharati, National Instt. of Mental Health & Neuro Sciences, Bangalore.

Psychology, Clinical: Banaras d. Kerala d, National Instt. of Mental Health & Neuro Sciences. Bangalore.

Public Administration†: Aligarh. Andhra. Karnataka, Lucknow. Madras. Marathwada. Mysore. Nagpur. Osmania. Patna. Pune. Punjab. Punjabi. Rajasthan. Saugar. South Gujarat. Utkal. *Diploma:* Aligarh. Gorakhpur, Lucknow, Osmania, Patna.

Public Health: Andhra d, Bombay d, Calcutta d, Gujarat d, Kerala d. Lucknow d, Marathwada d, Osmania (Bachelor's), Patna d, Poona d, Rajasthan d, Shivaji d.

Public Health Engg.: *Master's:* Bangalore, Calcutta, I.I.T. (Kharagpur). Nagpur. Roorkee.

Punjabi†: Delhi. Gauhati. Guru Nanak. Kurukshetra. Punjab. Punjabi. *Diploma/Certificate:* Allahabad. Jammu, Punjabi.

Radar Engg.: *Master's:* I.I.T.. Delhi. I.I.T., Madras.

Radiation Medicine: Bombay d. Delhi d.

Radio-Physics & Electronics: Calcutta.

Radiodiagnosis: Gujarat m. Madras d m. P.G. Research Instt. in Medicine m. Sambalpur d. Utkal d.

Radiology/Radiological Medicine: Agra m, Baroda m, Bombay m, Dibrugarh m, Gujarat m, Jiwaji d m, Madras d, Punjab m, Poona m, Rajasthan m.

Radiotherapy: Gujarat m, Karnataka d, Madras d m, P. G. Research Instt. in Medicine m. Utkal d.

Religion: See 'Indian Philosophy' in this list.

Rocketry: See 'Space Engg.' in this list.

Rubber Tech.: *Bachelor's:* Bombay. Calcutta.

Rural Studies: *Master's:* South Gujarat.

Russian: Agra. Aligarh. Allahabad. Andhra. Banaras. Baroda. Bombay. Calcutta. Delhi. Gauhati. Indore. Jadavpur. Karnataka. Kerala. Lucknow. Madras. Madurai. Mysore. Nagpur. Osmania. Poona. Punjab. Rajasthan. Shivaji. Utkal. Varanaseya Sanskrit Vish.. Vikram.

Sanitary Science: *Bachelor's:* Madras.

Sanskrit†: Rabindra Bharati and all Universities listed above under 'Economics' except Berhampur. Haryana Agri.. Punjab Agri., and Sambalpur.

Sculpture: *Bachelor's:* Visva-Bharati. *Diploma:* Banaras. Baroda. Gujarat.

Serbo-Croatian: Delhi.

Sillicate Tech.: *Bachelor's:* Banaras. *Master's:* Banaras.

Sindhi†: Bombay, Gujarat. Poona. Punjab. Punjabi.

Social Service: *Bachelor's:* Bombay, Kashi Vidyapith. Mysore, Visva-Bharati. *Master's:* Agra. Andhra. Baroda. Bombay, Delhi, Gujarat Vidyapith, Delhi. Indore. Karnataka, Kashi Vidyapith, Kerala, Lucknow, Madras, Mysore. Shivaji. Udaipur. *Diploma/Certificate:* Calcutta. Nagpur. Poona. Allahabad. Kerala. Madras.

Sociology†: Agra, Aligarh, Andhra, Annamalai; A.P. Singh, Banaras. Bangalore. Baroda. Bhagalpur. Bhopal. Bombay. Calcutta. Delhi. Dibrugarh. Gorakhpur. Gujarat. Haryana Agri.. Indore. Jabalpur. Jiwaji. Jodhpur. Kalyani. Kanpur. Kashi Vidyapith. Kerala. Lucknow. Madras. Marathwada. Meerut. Mysore. Nagpur. Osmania. Patna. Poona. Punjab. Punjab Agri.. Punjabi. Rajasthan. Ravi Shankar. Sardar Patel. Saugar. Saurashtra. Shivaji. S.N.D.T.. South Gujarat. Sri Venkateswara. Udaipur. Utkal. Vikram. Visva-Bharati.

Social Welfare: See 'Labour' in this list.

Space Engg. & Rocketry: *Master's:* Ranchi. *Dip.:* Guj.

Spanish: Delhi. Utkal.

Speech Therapy: *Bachelor's:* Bombay.

Statistics†: Agra. Aligarh. Allahabad. Andhra. Annamalai. Banaras. Bangalore. Baroda. Bhagalpur. Bombay. Burdwan. Calcutta, Delhi. Dibrugarh. Gauhati. G.B. Pant University of Agri. and Tech.. Gujarat. Guru Nanak. Haryana Agri.. I.I.T. Kanpur. Indore. Kanpur, Karnataka. Kerala. Lucknow, Madras. Meerut. Mysore, Nagpur, Osmania, Patna, Poona, Punjab. Punjab Agri., Rajasthan, Sardar Patel, Shivaji, South Gujarat. Sri Venkateswara, Utkal, Vikram. *Diploma/Certificate:* Aligarh, Andhra (applied statistics), Gauhati, Gujarat, Karnataka, Kurukshetra, Madras, Punjab (also economic statistics), Punjabi.

Surgery: P. G. Research Inst. in Medicine m.

Swahili: Delhi.

Syriac†: Burdwan. Calcutta. Madras.

Tamil†: Allahabad. Annamalai. Banaras. Delhi. Kerala. Lucknow. Madras. Madurai. Osmania, Punjab. Punjabi. Sri Venkateswara. Utkal. *Diploma/Certificate:* Agra, Aligarh, Allahabad, Annamalai (teaching Tamil). Banaras. Lucknow. Madras. Punjab. Udaipur.

Telecommunication: *Bachelor's* : Andhra. Jadavpur. Karnataka. Osmania. Poona. *Master's:* Jadavpur. Poona.

Telugu†: Aligarh. Andhra. Annamalai. Madras. Osmania. Sri Venkateswara. Utkal. *Diploma/Certificate:* Agra, Aligarh, Allahabad, Annamalai. Banaras. Madras.

Textile Chemistry: *Bachelor's & Master's:* Bombay.

Textile Engg.: *Master's:* Baroda.

Textile Tech.: *Bachelor's & Master's:* Bangalore, Baroda, Bombay, Burdwan, Calcutta, I.I.T. Delhi, Kanpur, Madras, Punjab.

Thai: Banaras.

Theology: (see also 'Islamic studies' and 'Indian Philosophy and Religion'). *Diploma:* Aligarh.

Tibetan: Banaras. Calcutta. Gorakhpur. Lucknow. Punjab. Punjabi. Saugar. Varanaseya Sanskrit Vish.. Visva-Bharati.

Tubercular Diseases/Tuberculosis: Agra d, Andhra d, Baroda d, Bombay m, Calcutta d, Delhi d, Gujarat m, Indore d, Karnataka d, Lucknow d, Madras d, Nagpur d, Osmania d, Patna d, Poona m, Rajasthan d, Sambalpur d, Utkal d.

Turkish: Aligarh.

Urdu†: Agra. Aligarh. Annamalai. Allahabad. Banaras. Baroda. Bhopal. Bihar. Bombay. Burdwan. Calcutta. Delhi. Gauhati. Gorakhpur. Gujarat. Jabalpur. Jammu. Karnataka. Kerala. Lucknow. Madras. Marathwada. Mysore. Nagpur. Osmania. Patna. Poona. Punjab. Rajasthan. Ravi Shankar. Saugar. Shivaji. Sri Venkateswara, Udaipur, Utkal, Vikram. *Diploma/Certificate:* Aligarh, Allahabad. Delhi. Jammu. Lucknow. Madras, Visva-Bharati.

Venereal Diseases: Agra d, Andhra d, Calcutta d, Madras d m, Osmania d, Sambalpur d.

Venereology & Dermatology: *Diploma:* Baroda, Bombay, Gujarat, Karnataka, Poona, Rajasthan, Utkal.

Veterinary Science: *Bachelor's:* Agra.

Vocational Guidance: *Diploma:* Nagpur.

Yogic Science: *Diploma*: Saugar.

Zoology†: All universities listed above under 'Botany' except Haryana Agri. and South Gujarat.

Zoo-Physiology: *Master's*: Kerala.

DIPLOMA AND CERTIFICATE COURSES

Acupuncture

Maharashtra: International Instt. of Acupuncture, Above Islam Club, Chowpatty Seaface, Bombay 400007 (Chinese & Western Cosmetic and Radio Frequency Acupuncture theory & practical trng.).

Agriculture, Dairying and Marine Products Study

Gujarat: Dairy Science College, Instt. of Agriculture, Anand (Dip. in Dairy Tech.).

Haryana: National Dairy Research Instt., Dairy Science College, Karnal (Dip. in Dairy Engg., Dairy Extension Course & I.D.D.).

Karnataka: Marine Products Processing Trng. Centre, Mangalore (Dip. in Processing of Marine & Agri. Trng.); National Dairy Research Instt., Southern Regional Station, Bangalore 560030 (Indian Dairy Diploma—Dairy Tech. & Dairy Husbandry—Ph. D., Dairy Sc.).

Maharashtra: Instt. of Dairy Technology, Aarey Colony, Goregaon, Bombay (Dip. in Dairying).

Manipur: Gram Sevak Trng. Centre, Traisemba, Imphal (Integrated Course in Agri.).

Uttar Pradesh: Agricultural School, Gurukul Kangri University (Agri. & Extension Dip. Exam.); Allahabad Agricultural Instt., Allahabad (Indian Dairy Diploma).

Delhi: Indian Agricultural Res. Instt., Pusa, New Delhi (Dip. & Cert. in Agri. Stat.).

Banking, Commerce, Co-operation & Secretarial Practice

Andhra Pradesh: Central Instt. of Commerce, Tarnaka, Secunderabad (Dip. in Com. Pr.); Industrial Trng. Institute, Malleppally, Hyderabad (Dip. in Steno.); Kamala Nehru Polytechnic for Women, Hyderabad (Dip. in Com. Pr.).

Assam: Girls' Polytechnic, Gauhati (Dip. in Steno. & Sec. Pr.).

Bihar: College of Commerce, Patna (Cert. & National Dip. in Com.).

Gujarat: Govt. Polytechnic for Girls, Ahmedabad (Dip. in Sec. Pr., Bus. Corres. & Steno.); Govt. Polytechnic for Girls, Surat (Dip. in Sec. P., Bus. Corres. & Steno.).

Haryana: Govt. Technical Instt. for Women, Ambala City (Dip. in Com. Pr. & Steno.); Industrial Trng. Instt., Ambala (Steno., English & Hindi).

Jammu & Kashmir: Industrial Trng. Instt., Jammu (Cert. in Steno.).

Karnataka: C.P.C. Govt. Polytechnic, Mysore (Dip. in Sec. Pr.); Polytechnic for Women, Bangalore (Dip. in Sec. Pr. & Lib. Sc.).

Kerala: Co-operative College, Calicut (Higher Dip. in Co-op.); Women's Polytechnic, Trichur (Dip. in Com. Pr.).

Madhya Pradesh: S.V. Govt. Polytechnic Instt., Bhopal. (Dip. in Com. Pr.); Women's Polytechnic, Bhopal (Sec. Pr. & Steno.).

Maharashtra: Bandra Instt., Opp. Rly. Station, Near Sahakar Bazar, Bandra, Bombay 400050 (Pvt. Secyship. Typing. Shorthand, G.C.D., Accountancy, English Speaking, Office Asstt.); Bombay Adult Education Assocn., Cama Hall Bldg., 136, Shahid Bhagat Singh Rd., Fort, Bombay 400023 (Business accounts); Bombay Instt. of Commerce, 115, Himalaya House Palton Rd., Bombay 400001 (Bus. accounts, G.C.D.); Davar's College, 51, Mahatma Gandhi Rd., Fort, Bombay 400001 (Govt. Commercial Dip., Dip. in Com., Personal Secy. Dip., Personal Asst. Dip., Telephone Operating-cum-Receptionist, Steno.); Edan College, 545, Bharat Photo House, Above Diana Sports, Dhobitalao Bombay 400002 (Secretarial Dip., Shorthand theory & speed). Ellora Instt., Opp. Rly. Station, Near Tiffany's Restaurant, Santa Cruz (E), Bombay-400055 (Telephone Operating, Pvt. Secy., Steno., G.C.D., Accountancy, English Speaking, Office Assistants); Girgaum Instt. of Commerce, 210/A, J. Shanker Seth Rd., Maroba Niwas, Opp. Central Bank, Near Gaiwadi, Girgaum, Bombay-400004 (G.C.D.); J.J. College of Commerce. 14, Nanabhoy Lane, Bombay-400001 (Dip. in Executive Secy., Personal & Steno. Secy.); King's Circle Instt. of Comm., 283, Meghdoot Bldg., Near Shanmukhananda Hall, Sion (E), Bombay-400022 (G.C.D.); Oxford Instt. of Comm. & Mgmt., 102, Nirmala Aptts., Jay Prakash Rd., Near Rajkumar Hotel, Andheri (W), Bombay-400058 (Steno., Personal Secy., Mathematics and Accountancy); Y.M.C.A. School of Comm. and Mgmt., 12, N. Parekh Marg, Bombay-400039 (Accounts and Maths., Personal Secy., G.C.D.).

Manipur: Industrial Trng. Instt., Takyel, Imphal (Cert. in Steno.); Industrial Trng. Instt., Imphal (Surveyor & Draftsman).

Meghalaya: Industrial Trng. Instt., Metre Factory, Short Round Rd., Shillong (Cert. in Steno.).

Orissa: Industrial Trng. Centre, Cuttack (Cert. in Steno.).

Punjab: Govt. Polytechnic for Women, Jullunder (Dip. in Com. Practice & Lib. Sc.); Industrial Trng. Instt., Nabha (Cert. in Steno.).

Rajasthan: Demonstration Multipurpose School, Ajmer (Dip. in Com. Pr.).

Tamil Nadu: Govt. Polytechnic for Women, Adyar, Madras (Dip. in Com. Pr.); Govt. Polytechnic for Women, Subramaniapuram, Madurai (Dip. in Com. Pr.).

Uttar Pradesh: B.V. Rural Instt., Bichpuri, Agra (Dip. in Rural Econs.); Govt. Women's Polytechnic, Lucknow (Cert. in Steno., Sec. Pr.).

West Bengal: Goenka College of Commerce & Bus. Admn., 210, Bipin Behari Ganguli St., Calcutta-700012 (National Dip. in Com.).

Chandigarh: Govt. Polytechnic for Women, Chandigarh (Dip. in Steno. & Com. Pr.).

Delhi: Instt. of Com. Practice, Mori Gate, Delhi-110006 (Dip. in Com. Pr., Cert. in English & Hindi Steno., Post Dip. in Co. Secretaryship, Marketing & Sales Mgmt.); New Delhi Polytechnic for Women, J-21, South Extension, Part I, New Delhi (Dip. in Sec. Pr.).

Pondicherry: Motilal Nehru Polytechnic, Pondicherry (Dip. in Com. Pr.).

Beauty Therapy and Culture

Maharashtra: Butic Instt., BUTIC, Park Apartment, Cadell Rd., Shivaji Park (Dip. in Beauty Culture & Therapy and Cosmetology); Courses and Career Centre, Radio Bhuvan, Near V.T. Station, Bombay; Indian Instt., Opp. New Empire Theatre, Bombay-400001; Maniben Nanavati Women's College, Vallabhbhai Rd., Vile Parle (W), Bombay-400056 (Beauty Course); Vanita Classes, C/o Amee Classes, Lajpatrai Rd., Vile Parle (W), Bombay (Hair Style & Switch setting, Beauty and Make-up).

Catering & Hotel Management

Andhra Pradesh: Kamla Nehru Polytechnic for Women, Hyderabad (Dip. in Food Technology).

Karnataka: Food Craft Instt., S.J. Polytechnic Bldgs., Bangalore (Dip. in Food Craft, Higher Cert. Course, Hotel Receptionist & Book Keeping, Restaurant & Counter Service, Cookery, Bakery & Confectionery and House Keeping).

Maharashtra: Bombay Adult Education Assocn., Cama Hall Bldg., 136, Shahid Bhagat Singh Marg, Fort, Bombay 400023 (Caterin

Mgmt.); Datamatics Corpn., Bombay Mutual Bldg., 293, Dr. D.N. Rd., Bombay 400001 (Post Graduate Dip. Course in Hotel Catering & Institutional Mgm.; Food Craft Instt., Shivajinagar, Pune 411005 (Dip. in Catering & Hotel Mgmt.); Indian Intnl. Trade Centre (IITC), 59, Nariman Bhavan, Nariman Pt., Bombay 400021 (Dip. in Hotel and Restaurant Mgmt.); Instt., of Hotel Mgmt., Catering Technology and Applied Nutrition, Andheri, Bombay 400058 (Dip. in Hotel Mgmt. and Food Tech., Cert. in Craftsmanship in Cookery); K.C. College of Mgmt. Studies, K.C. College, Dinshaw Wachha Rd., Churchgate, Bombay 400020 (Hotel Mgmt.,); Pranlal Devkaran Nanjee College of Communication & Mgmt., Bharatiya Vidya Bhavan, K.M. Munshi Marg, Bombay 400007 (Dip. in Hotel and Institutional Mgmt.).

Tamil Nadu: Academy of Mgmt. Sciences & Studies, No. 5, Padmanabha Nagar, Adayar Tri-Junction, Madras 600020 (Post Graduate Dip. Course in Catering & Hotel Mgmt.); Instt., of Catering Technology and Applied Nutrition, Madras 600020 (Dip. in Hotel Mgmt. and Catering Technology, Crafts Courses in Bakery, Confectionery, Cookery, Canning and Food Preservation, Hotel Reception and Book-Keeping).

West Bengal: Instt. of Catering Technology and Nutrition, Calcutta (Dip. in Hotel Mgmt. & Food Technology).

Delhi: Instt. of Hotel Mgmt., Catering Technology and Applied Nutrition, Pusa, New Delhi 110012 (Dip. in Hotel Mgmt & Food Tech.).

Computer Programming

Gujarat: India Instt. of Computer Mgmt., B4, Samet Keshav Nagar, Ahmedabad 380027 (Dip. in Computer Mgmt.).

Maharashtra: Bureau of Data Processing System, 103, Hind Rajasthan Bldg., Dadasaheb Phalke Rd., Dadar (E), Bombay 400014 (Trng. in COBOL, FORTRAN, BASIC, AUTOCODER programming and card punching and verifying); Computer Society of India, Bombay Chapter, C/o Associated Cement Companies, Cement House, 121, Maharshi Karve Marg, Bombay 400020 (COBOL programming); Computer Software Consultants, 101, Kshamalaya (Opp. Patkar Hall), New Marine Lines, Bombay 400020 (COBOL Programming); Datamatics Corpn., Bombay Mutual Bldg., 293, Dr. D.N. Rd., Bombay 400001 (Programming in COBOL, BASIC, FORTRAN IV, Systems analysis and data entry operation), Davar's College, 51, Mahatma Gandhi Rd., Fort, Bombay 400001 (Dip. in Computer programming & punch operating); Indian Instt. of Cybernetics, B-10, Kumar Socy., Nanda Patkar Rd., Vile Parle (E), Bombay 400057 (Dip. in COBOL & BASIC); Narsee Monjee Instt. of Mgmt. Studies, Juhu Devpt. scheme, Vile Parle (W), Bombay 400056 (Dip. in Computer Mgmt.); National Instt. of Information Technology, Mittal Court, B, Nariman Pt., Bombay 400021 (DP concepts, programming in BASIC, ANS COBOL, FORTRAN IV, Systems Analysis & Design); Nova Consultants Ltd., A-74, Mittal Court, Nariman Pt., Bombay 400021 (Systems analysis—DP and COBOL/BASIC programming); Palm Beach Computer Centre, C/o Palm Beach School, 15, Darabsha Rd., Off Napean Sea Rd., Bombay 400036 (HIBASIC, Computer Operation, File Organisation & Systems analysis); Pranlal Devkaran Nanjee College of Communication & Mgmt., Bharatiya Vidya Bhavan, K.M. Munshi Marg, Bombay 400007 (Dip. in Data Processing); Somaiya Computer Centre, Somaiya Vidya Vihar, Vidya Vihar, Bombay 400077 (one semester course in COBOL, BASIC and FORTRAN); Stybac Computer Centre, 632, Panchratna Bldg., 6th Floor, Opera House, Bombay 400004 (Programming in COBOL, BASIC, FORTRAN, AUTOCODER, PERT & CPM); Systematix, Gurukul Technical High School, Gurukul Lane (Off Tilak Rd.), Ghatkopar (East), Bombay 400077 (Programming in Basic).

Tamil Nadu: Instt. for Financial Mgmt. & Res., 30, Kothari Rd., Nungambakkam, Madras 600034 (Computers for finance and accounts executives).

Domestic Science

Andhra Pradesh: Domestic Science Trng. College, Secunderabad (Dip. in Domestic Sc.); Girls' Vocational Instt., Warangal (Cert. in Domestic Sc.); Govt. Polytechnic for Women, Guntur (Dip. in Dress making & Costume designing); Kamla Nehru Polytechnic for Women, Hyderabad (Dip. in Dress making & Costume Designing).

Gujarat: Govt. Polytechnic for Girls, Navarangpura, Ahmedabad (Costume designing & Dress making).

Karnataka: Central Instt. of Home Sc., Bangalore (Dip. in Home Sc.); Home Science College, Hubli (Dharwar) (Dip. in Home Sc.); Polytechnic for Women, Hubli (Dip. in Costume Designing and Dress Making).

Kerala: Women's Polytechnic, Calicut (Dip. in Costume Designing and Dress Making); Women's Polytechnic, Trichur (Dip. in Costume Designing & Dress Making).

Madhya Pradesh: Govt. Women's Polytechnic, Bhopal (Dip. in Costume Designing & Dress Making).

Maharashtra: Department of Continuing & Adult Education, S.N.D.T. Women's Univ., 1, Srimati Nathibai Thackersey Rd., Bombay 400020 (Fruit Preservation & Canning, Bandhni & Batik, Origami-Japanese Paper Art, Bonsai & Ornamental Greens, Medical Secy.); Grahini Vidyalaya, Owner's Court, Behind Mahim P.O., Moghul Lane, Mahim, Bombay (Dip. in Home Sc.); Maharani Vijaimala Chatrapati Grahini Mahavidyalaya, Old Palace, Kolhapur (Dip. in Home Sc.); Maniben Nanavati Women's College, Vallabhbhai Road, Vile Parle (W), Bombay 400056 (Beauty Course, Aluminium Embossing Frame, *Mehndi, Batik,* Home Economics, Fancy Cooking, Purse Making); Nirmala Niketan Home Science Instt., 38, New Marine Lines, Bombay 400020 (Dip. in Home Sc., T.T. Dip. in Home Making, T.D. Extension Classes); Sophia College Besant Kumar Somani Polytechnic, Bhulabhai Desai Rd., Bombay 400025. Vanita Classes, C/o Amee Classes, Lajpatrai Rd., Vile Parle (W), Bombay 400056 (Cooking & baking, Toy making and Handicraft, Purse making, *Mehndi,* Hair Styles, Flower arrangements); Zarapkar Tailoring College, Senapati Bapat Marg, Dadar, Bombay 400028 (Fashion designing & Tailoring).

Tamil Nadu: Govt. Polytechnic for Women, Adyar, Madras 600020 (Costume designing & dress making).

Uttar Pradesh: Govt. College of Arts & Crafts, Lucknow (Cert. in Pottery Preparation, Home Arts & Crafts); Govt. Women Polytechnic, Lucknow (Costume design and dress making).

Delhi: Lady Irwin College, New Delhi (Dip. in Home Sc.); New Delhi Polytechnic for Women, J-23, South Extension Part I, New Delhi 110049 (Costume designing & Dress making).

Dramatic Arts, Film and Television

Gujarat: College of Indian Music, Dance and Drama, M.S. University of Baroda, Baroda.

Maharashtra: Film and T.V. Instt. of India, Chiplunkar Rd., Pune (Dip. in Art Direction).

Orissa: Orissa College of Music, Dance and Drama, Bhubaneshwar (Cert. in Music and Drama).

Punjab: Department of Speech and Drama, Punjabi Univ., Patiala.

Tamil Nadu: Film and Television Instt. of Tamil Nadu, C.I.T. Campus, Adyar Madras 600113; Instt. of Film Technology, Broadway, Madras (Dip. in Cinematography, Film Processing, Sound Eng. and recording).

Uttar Pradesh: Kamboj Saptakala Niketan, Meerut (Cert. in Acting & Writing).

West Bengal: Ravindra Bharati Univ., 6/4, Dwarkanath Tagore Lane, Calcutta.

Delhi: National School of Drama and Asian Theatre Instt., Ravindra Bhavan, Delhi.

Educational and Vocational Guidance

See chapter on Vocational Guidance Bureaux.

Engineering and Technical

Andhra Pradesh: Andhra Polytechnic, Kakinada (Dip. and Part-time Dip. in Auto., Civil. Elect., Elect. Comm., Mech.); Govt.

Mining Instt., Kothagudem (Dip. in Mining Engg.); Govt. Polytechnic for Women, Guntur (Dip. in Elect. & Comm. Engg.); Govt. Polytechnic for Women, Kakinada (Dip. in L.C.E., L.E.C.E., Arch., Pharm., Com. Pr.); Industrial Trng. Instt., Mallepalli, Hyderabad (Draftsman, Civil & Mech., Electrician, Radio Mechanic, Electro-plater, Tool & Dye-making, Pattern maker, Mech., Refrig. and Air Cond. & Compositor Hand); Instt., of Correspondence Studies, Himayatnagar, Hyderabad 500029 (B.E., A.M.I.E., A. & B. A.M.I.E.T.E. Sect. A. & B., A.M. A.R. S.I., A.M.I.M.E., I.I.M.; A.M.I.A.E.); Kamla Nehru Polytechnic for Women, Hyderabad (Dip. in Engg.—Civil, Commn., Elect. & Architectural Assistantship).

Assam: Assam Engg. Instt., Gauhati (Dip. in Engg.—Civil, Mech. & Chemical Operation); Assam Textile Instt., Gauhati (Dip. in Text. Tech.); Girls Polytechnic, Gauhati (Dip. in Civil Draftsmanship and Civil Engg.); Industrial Trng., Instt., Bhagalpur (Cert. in Industrial Trades, Electrician and General Mechanic, Draftsmanship-Civil); Kodarma Mining Instt., Kodarma (Dip. in Mining).

Bihar: Patna Polytechnic, Patna (Dip. in Ceramics, Metal Works & Text. Tech., Cert. in Turning, Machinist, Sheet Metal & Welding).

Gujarat: C.N. Polytechnic, Ahmedabad (Cert. in Draftsmanship Civil & Mech., Estimating & Radio Servicing); Faculty of Technology (Including Engg.), Baroda (Dip. in Text. Chem., Text. Tech. & Engg.-Civil, Elect. & Mech., Cert. in Dyeing & Text. Printing); Govt. Polytechnic for Girls, Ahmedabad (Dip. in Electronics & Radio Engg., Agricultural Draftsmanship/Assistant); Shri A.V. Parikh Technical Instt., Rajkot (Dip. in Radio Engg., Sound Engg. & Elec. Engg.); Tari Bhavsinghji Polytechnic, Bhavnagar (Dip. in Engg.—Auto/Civil, Elect. & Mech. and Tech.— Text. Manufacture).

Haryana: Govt. Instt. of Surgical Technology, Sonepat (Dip. in Surgical Instruments Tech., Dye Sinking and Machine Tools); Industrial Trng. Instt., Ambala (Cert. for Draftsman Mech. Instrument Mech., Electroplater, Pattern Maker); Industrial Trng. Instt., Yamunanagar (Cert. in Draftsmanship—Civil & Mech.—Electrician, Electroplater, Machinist—Civil & Mech.—Instrument Mechanic and Wireman).

Jammu & Kashmir: Govt. Polytechnic, Srinagar (Dip. in Engg.—Auto., Civil, Elect. & Mech., Draftsman—Civil, Elect. & Mech.); Industrial Trng. Instt., Hiranagar (Cert. in Trades: Blacksmithy, Carpentry, Cutting & Tailoring, Electrician, Sheet metal, Turner & Weaving); Industrial Trng. Instt., Jammu (Cert. in Trades, Carpentry, Tailoring, Electroplater, Fitter, Machinist, Motor Mechanic, Moulder, Painting and Decorating, Tractor Mech., Turner, Weaving & Welding).

Karnataka: C.P.C. Govt. Polytechnic, Mysore (Dip. in Engg. Auto, Civil, Elect. & Mech.); Indian Instt. of Science, Electrochemical Society of India, Bangalore 560012 (Industrial Metal Finishing Training Programme); Polytechnic for Women, Mangalore (Dip. in Engg.—Telecommunication, Sec. Pr.); School of Mines, Kolar Gold Fields, Ooragaum, Kolar (Dip. in Mining & Mine Surveying); Sri Jayachamarajendra Polytechnic, Bangalore (Dip. in Engg.—Civil and Public Health, Elect., Mech., Radio, Sanitary and Tele. Comm; Electronics, Sound and Television, Auto. Boilers and Engines, Ceramics, Cinematography, Instrument Mechanics, Welding & Sheet Metal Mechanics, Heat Power & Tool Technology); Shri K. Silver Jubilee Technological Instt., Bangalore (Dip. in Text. Tech.—Spinning & Weaving).

Kerala: Central Polytechnic, Trivandrum (Dip. in Engg.—Civil, Elect. Electronics and Mech., Dip. and Cert in Textile Tech.): Women's Polytechnic, Calicut (Dip. in Civil Draftsmanship); Women's Polytechnic, Trichur (Dip. in Electronics).

Madhya Pradesh: Govt. Central Technical Instt., Polytechnic, Gwalior (Dip. in Engg.—Civil, Elect. & Mech.—and Text. Tech.); Govt. Kala Niketan, Jabalpur (Cert. in Internal Combustion Engines—Maintenance and Repairs—Radio Servicing & Operation, Dip in Printing Tech., Cert., in Wireman & Elect. Supervision); Govt. Mining Polytechnic, Shahdol (Dip. in Engg.—Elect., Mechanical & Mining & Mine Surveying); Govt. Polytechnic, Durg (Dip. in Engg.—Civil, Elect., Mech. & Metallurgy); Industrial Trng. Instt., Bhilai (Cert. in Building Construction, D/M/Civil, Mech., Elect., Tool & Die Maker, Fitter, Machinist, Compositor & Grinder, Mech Instrument Turner, Wireman, Motor Mech., Refrig. Mech.); Industrial Trng. Instt., Gwalior (Cert. in Bldg. Construction, D/M/Mechanic, Electrician, Tool & Die Maker, Fitter Machinist, Compositor & Grinder, Mech. Radio and T.V., Turner, Farm & Motor Mech.); Industrial Trng. Instt., Sagar (Cert. in Electrician, Fitter, Machinist, Compositor, T.V. & Radio Mech., Turner, Wireman, Motor Mech.); S.V. Govt. Polytechnic Institute, Bhopal (Dip. in Engg.—Civil, Elect. & Mech. Engg., Model Technician, Dip. in Machine Bldg., Desigh & Drafting M/c Building Tech., Pharmacy & Comm. Pr.).

Maharashtra: Abhinav Technical Institute, Near Dept. Stores, Kabutarkhana, Dadar, Bombay 400028; Agnel Technical Complex, Fr. Agnel Ashram, Bandra, Bombay 400050 (Courses in Radio & T.V., Wireman, Purchase & Store-keeping, C.A. Entrance & ICWA Coaching, Welding, Aircond. & Refrig.); Bandra Instt., Opp. Rly Station, Near Sahakar Bazar, Bandra, Bombay 400050 (Telex, Telephone, Draftsman—Civil, Mech. & Elect.—Piping, Jig Tools & Electrician); Bharat Radio Instt., Tulsi Pipe Rd., Near Allahabad Bank, Makarand Socy., Bombay 400028 (T.V. & Radio Servicing, Dip. in Refrig. & Aircond.); Bombay Adult Education Assocn., Cama Hall Bldg., 136, Shahid Bhagat Singh Road, Fort, Bombay 400023 (Radio & T.V. principles); Cambridge College of Technology, Medows House, Medows St., Flora Fountain, Bombay 400023 (Radio—T.V. Servicing, Dip. in Refrig. & Air Cond.); Datamatics Vocational Trng. Centre, Bombay Mutual Bldg., 293, Dr. D.N. Rd., Bombay 400001 (T.V. Technology); Dattaji Rao Kadam Technical Education Socy., 97, Ward No. 10, Narayan Peth, Dist. Kolhapur, Ichalkaranji 416115; Dhir and Dhir Technical Instt., 317, Hind Rajasthan Bldg., Bombay 400014 (A.M.I.E.); Dnyansagar Vidyapeeth Instt., of Technology, Thane (Deg. level course in Engg.); Ellora Instt., Opp. Rly. Station, Near Tiffany's Restaurant, Santa Cruz (E), Bombay 400055 (Operation of Telex, Telephones, Punch Operating, Draftsman, Piping, Jig Tools, Electrician); Govt. Leather Working School, Bandra, Bombay 400051 (Dip. in Advance Leather Goods & Footwear Manufacture); Govt. Polytechnic, Kolhapur (Dip. in Engg.—Civil, Elect. & Mech.—Dip. in Sugar Analysis, Cert. in Juice Treatment, Pan Boiling, Milling House Mech., Practical Boiling House Mech.); Indian Radio Instt., Residency Rd., Nagpur (Cert. in Radio Servicing); Kohinoor Technical Instt., Kohinoor Bhavan, Senapati Bapat Marg, Dadar, Bombay 400028 (Do-it-yourself electronic training kits); M.G. Textile Technology School, Parel, Bombay 400012 (Cert. in Spinning & Weaving); Nautical and Engg. College, Waudby Rd., Bombay 400001 (Dip. in Navigation & Engg.); Radio Bhuvan, Indian Instt., Opp. New Empire Theatre, V.T. Station, Bombay 400001 (Radio, T.V., Transistors, Audio Servicing, Wireman, Electrician, Watch repairing, Air Conditioning, Refrigeration, Turner/Fitter, Automobile, Photography); Shri Bhagubhai Mafatlal Polytechnic, Irla-Juhu Rd., Vile Parle (W), Bombay 400056 (Post Dip. in Foundry Tech. & Medical Electronics); Silk & Art Silk Mill's Research Asscn. (SASMIRA), Sasmira Marg, Worli, Bombay 400025 (Dip. in Man-made Text. Tech., Cert. in Weaving & Wet-processing of Man-made fibres); Standard T.V. Training Centre Pvt. Ltd., 98, Govt. Industrial Estate, Kandivli (W), Bombay 400067; Victoria Jubilee Technical Instt., Matunga, Bombay 400019 (Dip. in Text. & Applied Chemistry, Text. Manufacture & Engg., Civil and Sanitary, Elect. & Mech.—Cert. for Foreman & Supervision).

Manipur: Adimjati Technical Instt., Imphal (Dip. in Engg.—Civil, Elect. & Mech.); Industrial Trng. Instt., Imphal (Cert. in Surveyor & Draftsman).

Meghalaya: Industrial Trng. Instt., Garo Hills, Tura (Welder, Fitter, Carpentry, Blacksmith, Motor Vehicles Machinist); Shillong Polytechnic, Malwai, Shillong 793008 (Dip. in Civil Engg.).

Nagaland: Industrial Trng., Instt., Kohima (Cert. for Electricians); Polytechnic Instt., Atiozo (Cert. in Draftsmanship).

Orissa: Industrial Trng. Centre, Cuttack (Cert. in Draftsmanship, Electrician, Radio Mechanic & Surveyor); Orissa School of Mining

&Engg., Keonjhar (Dip. & Cert. in Mining); Rourkela Polytechnic, Rourkela (Dip. & Cert. in Engg.).

Punjab: Govt. Instt. of Dyeing, Printing & Hosiery Technology, Ludhiana (Dip. in Dyeing & Printing); Govt. Instt. of Garment Technology, Amritsar (Dip. in Garment making technology); Govt. Instt. of Textile Chemistry and Knitting Technology, Ludhiana (Dip. in Textile Chemistry and Knitting Technology); Govt. Woodworking Instt., Jullunder (Dip. in Wood work & Cabinet Making); Govt. Tanning Instt., Jullunder (National Dip. & Cert. in Leather Chemistry & Tech.); Industrial Trng., Centre/Dayanand Polytechnic Instt., Amritsar (Cert. in Electrician, Electroplater, Mech.—Radio & T.V. and Surveyor & Draftsman—Civil); Industrial Trng. Instt., Bhatinda (Cert. for Instrument Mech., Radio & T.V., Mech. & Electrician, Refrig. & Air Condg., Draftsmanship and Civil, Mech., Surveyor); Industrial Trng. Instt., Ludhiana (Cert. for Draftsman, Mech., Electrician, Radio & T.V., Mechanic, Electroplater & Pattern Maker); Punjab Instt. of Textile Technology, Amritsar (National Dip. in Text. Tech. & Artisan Cert.).

Rajasthan: Ajmer Polytechnic, Ajmer (Dip. in Engg.—Civil, Elect. & Mech.); Udaipur Polytechnic, Udaipur (Dip. in Engg.—Elect., Mech. & Mining).

Tamil Nadu: Central Polytechnic, Madras (Dip. in Engg.—Civil, Elect. Mech.—Fisheries Tech. & Navigation, Sandwich Part-time course in Tool Design, Metallurgy, Mech. Engg. and A.M.I.E., Post Dip. in Town & Country Planning, Refrig. & Air Cond.); Coimbatore Instt. of Technology, Sandwich Polytechnic, Coimbatore-641014 (Sandwich course in Mech. Engg.—L.M.E.); Govt. Polytechnic for women, Coimbatore (Dip. in Civil Engg.—Structural); Govt. Polytechnic for Women, Adyar, Madras 600020 (Dip. in Electronics—Radio Engg., Civil Engg., Draftsman); Instt. of Chemical Technology, Madras 600020 (Dip. in Chemical Tech.); Instt. of Leather Technology, Adyar, Madras-600020 (Dip. in Leather Tech.); Instt. of Textile Technology, Adyar, Madras-600020 (Dip. in Text. Tech.); Madras Instt. of Technology, Chrompet, Madras-600044 (Dip. in Engg.— Aero., Auto., Electronics & Instrumental Tech.), P.S.G. Polytechnic, Peelamedu, Coimbatore (Dip. in Engg.—Civil, Elect. & Mech., Text. Engg., Indus. Engg. & Post Dip. In Production Engg.); Ramakrishna Mission Technical Instt., Mylapore, Madras 600020 (Dip. in Engg.—Civil, Elect. & Mech.).

Tripura: Polytechnic Instt., Agartala Aerodrome, P.O. Narsingarh (Dip. in Engg.—Civil, Elect. & Mech.).

Uttar Pradesh: B.P.K. Govt. Polytechnic, Varanasi, (Cert. in Electro-plating); Civil Engg. School, Lucknow (Dip. in Overseer—Civil, Cert. in Draftsman—Civil); Govt. Central Textile Instt., Kanpur (Dip. in Text. Tech. and Text. Chem.); Govt. Central Wvg. Instt., Kanpur (Dip. in Wvg. Tech., Advanced Wvg. Course, Elementary Wvg., Cert. in Dyeing & Designing); Govt. Industrial and Technical Instt., Dehra Dun (Cert. for Radio & Motor Mech. and Electrical Supervisor); Govt. Leather Instt., Agra (Dip. in Leather Tech., Tanning Dip. in Footwear Tech.); Govt. Polytechnic Instt., Lucknow (Cert. for Elect. Supervisor, Electroplating, Motor Mechanic, Radio Mech. & Refrig. Mech.); Govt. Girls' Polytechnic, Lucknow (Electronics); National Sugar Instt., Kanpur (Associateship of N.S.I. in Sugar Engg. & Sugar Tech., Cert. in Sugar Engg.); School of Paper Technology, Saharanpur (Cert. & Dip. in Pulp & Paper Tech.); S.G.S.C. Govt. Polytechnic, Khurja (Dip. in Engg.—Civil, Elect. & Mech. and Ceramics Engg.).

West Bengal: Air Technical Trng. Instt., Dum Dum, 24 Parganas (Dip. in Aircraft Maintenance Engg., Auto Services Engg., A.M.E.-Cum-A.M.A.C.S.I. Cert., Master Aero Mechanic); Birla Instt. of Technology, Emerald Bower, 56, B.T. Road, Calcutta (Dip. in Mech. Engg.—Sandwich system); Calcutta Technical School, Calcutta (Dip. in Engg., Elect. & Mech.—and Plumbing and Sanitary Engg., Cert. in Elect. Supervisor & Shipwright); College of Leather Technology, Canal South Road, Calcutta (Cert. in Boots, Shoes & Leather Goods making); College of Textile Technology, Berhampur (Licentiate in Text. Tech.—Dip. course); Industrial Research Laboratory, Canal South Rd., Pagladanga, Calcutta 700015 (Dip. in Paint & Varnish Tech., Soap making and Ink Adhesive Disinfectants); Instt. of Jute Technology, Calcutta (Dip. in Jute Tech.); Instt. of Mining, Raniganj, Burdwan (L.M.E.); Model Blacksmithy Workshop, Ahmedpur, Birbhum (Cert. in Blacksmithy & Turner); W.B. Survey Instt., Hooghly (Dip. in Survey); Women's Polytechnic, 21 Convent Rd., Calcutta 700014 (L.C.E., L.A.D.).

Chandigarh: Central Polytechnic, Sector-26, Chandigarh (Dip. in Engg.—Civil, Elect. & Mech.); Industrial Trng., Instt., Sector 28, Chandigarh (Cert. for Radio & T.V. Mech. and Electrician, Instrument Mech., Draftsman—Civil).

Delhi: Border Security Force Signal Trng. School, R.K. Puram, New Delhi 24 (Dip. in Electronics); Govind Ballabh Pant Polytechnic, Okhla, New Delhi (Dip. in Engg.—Civil, Elect. & Mech., Post-Dip. in Air Condi. & Refrig.); K.G. Polytechnic, Kashmir Gate, Delhi (Dip. in Arch., Engg.—Civil, Elect. & Mech., National Dip. in Arch.); Pusa Polytechnic, New Delhi 12 (Dip. in Engg.—Auto, Civil, Elect., Mech. & Elect. Commun., Post-Dip. in App. Electronics & Microwave Tech.); Women's Technical Instt., Ashoka Road, New Delhi (Dip. in Electronics).

Mizoram: Industrial Trng. Instt., Aizawl 796001 (Cert. in Electrician).

Pondicherry: Motilal Nehru Polytechnic, Pondicherry (Dip. in Engg.—Civil, Elect., Mech. & Electronics).

Fashion Modelling:

Maharashtra: Instt. of Media Arts, A-8th Floor, Tardeo Air-Condition Market, Bombay 400034 (Modelling).

Fine Arts & Commercial Arts (Music, Dance, Drawing & Painting):

Andhra Pradesh: A.P. Lalit Kala Akademi, Kala Bhawan, Hyderabad (Drg. & Ptg.); Govt. College of Music and Dance, Hyderabad (Cert. in Karnatic Violin, Mridangam, Karnatic Vocal, Hindustani Vocal, Sitar, Tabla, Bharat Natyam, Kathak dance, Hindustani violin); Govt. College of Fine Arts & Architecture, Hyderabad (Commercial Arts).

Assam: Assam State Lalit Kala Akademi, Gauhati; Gauhati Music College, Gauhati (Dip. in Music).

Bihar: Kala Kendra, Bhagalpur.

Himachal Pradesh: Govt. College of Fine Arts, Shimla (Dip. in Ptg. & Drg., Sculpture & Commercial Arts).

Karnataka: Mysore State Lalit Kala Akademi, Bangalore (Drg. & Ptg.,); School of Arts & Crafts, Davangere (Dip. in Applied Art & Ptg.).

Kerala: Music Academy, Palghat; R.V. School of Painting, Mavelikara (Cert. & Dip. in Ptg., Post-Dip. in Ptg., Cert. & Post-Cert. in Modelling & Sculpture); S.S.T. College of Music, Trivandrum. (Cert. & Dip. in Mridangam, Veena, Vocal Music & Violin, Post Dip. in Dancing).

Madhya Pradesh: Bharatiya Kala Bhawan, Ujjain (Fine Arts); Govt. Fine Arts Institute, Indore (Dip. in Fine & Applied Art); Govt. Kala Niketan, Jabalpur (Dip. in Fine & Applied Arts, Advanced Dip. in Fine Arts); Govt. College of Fine Arts, Gwalior.

Maharashtra: Abhinav Kala Vidyalaya, Pune 9 (Dip. in Drg. & Ptg., Applied Art & D.M. & A.M.); Bandra School of Art, Bandra, Bombay 400050 (Dip. in Applied Art, Drg. & Ptg., D.M. & A.M.); J.J. Instt., of Applied Art, Bombay 400001 (Dip. in Commercial Arts, Apprentice Trng. Cert. in Commercial Art); J.J. School of Art, Bombay (Dip. in Drg. & Ptg., Sculpture, Modelling, Dip. in Fine Arts & Crafts); Kala Niketan, Kolhapur (Dip. in Drg. & Ptg., D.M. & A.M.); Nalanda Nritya Kala Mahavidyalaya, Shri Saiprasad, Plot A-7/1, N.S. Road, No. 10, J.V.P.D. Scheme, Vile Parle (W), Bombay 400049 (B.F.A. & M.F.A. in Bharata Natyam & Kathakali); Sangit Mahabharati, A/610, Third Rd., Juhu Parle Extension Scheme, Bombay 400056 (Dip. in Vocal, Sitar, Tabla & Kathak); Yeshwant Kala Mahavidyalaya, Aurangabad (Dip. in Drg. & Ptg., D.M. & A.M.).

Manipur: Imphal Art College, Chingmeirong, Imphal (Dip. in Drg. & Ptg.,); Jawaharal Nehru Manipur Dance Academy, D.M. College Campus, Imphal (Cert. & Dip. in Dance); Manipur Sangeet Mahavidyalaya, Imphal (Dip. in Vocal & Instrumental).

Orissa: College of Indian Music & Dance, Cuttack (Cert. in Music & Dance); Orissa College of Music, Dance & Drama, Bhuvaneshwar (Cert. in Music & Dance).

Tamil Nadu: Kalakshetra, Adyar, Madras (Music & Dance).

Tripura: Govt. Music College, Agartala P.O. (Cert. & Dip. in Vocal, Sitar, Tabla, Esraj & Dance).

Uttar Pradesh: Bhatkande (Morris) College of Hindustani Music, Lucknow (Cert. & Dip. in Vocal, Instrumental & Dance); Govt. College of Arts & Crafts, Lucknow (Dip. in Fine Arts, Commercial Art & Sculpture & Furniture Design, Cert. in Art Masters Trg.); Kamboj Saptakala Niketan, Meerut, (Dip. in Music, Cert. in Acting, Writing, Ptg. & Demonstration).

West Bengal: Academy of Fine Arts, Calcutta (Drg. & Ptg.); Bengal Music College for Girls, 10, Dover Lane, Calcutta (Cert. & Dip. in Classical & Light-classical vocal, instrumental Guitar, Dance); Bharatiya Sangeet Mahavidyalaya for Girls, Dhakuria, Calcutta (Vocal, Instrumental & Dance); Gita Bitan Shikshyatan, 25-B, Shyama Prasad Mukherjee Rd., Calcutta (Rabindra Sangeet, Sitar, Esraj, Guitar, Violin and Dance); Govt. College of Art & Craft, 28, Chowringhee Rd., Calcutta (Fine, Commercial & Applied Art).

Chandigarh: Govt. College of Arts & Crafts, Chandigarh (Dip. in Applied Arts—Iron Work, Jewellery and Enamel, Lacquer Work, Light Metal Work & Wood work).

Delhi: Chitra Kala Sangam, Connaught Circus, New Delhi (Dip. in Drg. & Ptg.); College of Art, 22 Tilak Marg, New Delhi; New Delhi Polytechnic for Women, J-23, South Extension, Part I, New Delhi (Dip. in Commercial Art & Interior Decoration & Display); Sangeet Bharati, Connaught Circus, New Delhi (Music & Dance); Women's Polytechnic, Maharani Bagh, New Delhi (National Dip. in Commercial Art & Architectural Assistantship).

Goa: Academia De Musica, Panaji (Cert. in Solfeggio, Piano, Violin, Cello, Composition-Harmony, Acoustics, History & Music); Gomant Zancar, Margao (Cert. in Indian Classical Dance in Odissi & Bharat Natyam); School of Music, Margao (Cert. in Solfeggio, Singing, Piano, Violin, Guitar and Trinity College, London, Exams.); Swara Manch, Margao.

Forestry:

Tamil Nadu: Southern Forest Rangers' College, Coimbatore (Forest Rangers' Cert.).

Uttar Pradesh: Forest Res. Instt., Dehra Dun (Research Trng, Dip. & Cert. in Forestry, Seasoning and Preservation of Timber & Paper Tech.).

Interior Designing, Decoration & Architecture:

Andhra Pradesh: Govt. College of Fine Arts and Architecture, Hyderabad.

Maharashtra: Abhinava Kala Vidyalaya, Pune-9 (Dip. in Architecture); Academy of Architecture, School of Interior Design, 278, Shankar Ghanekar Marg, Prabhadevi, Bombay 400025. (Cert. & Dip. in Int. Design.); Bandra School of Art, Bombay 400050 (Dip. in Architecture); Continuing Education and Training Centre, Ashok Kumar House, 35K, Dubash Marg (Rampart Row), Bombay 400023: Courses and Career Centre, Radio Bhuvan, Near V.T. Station, Indian Instts., Opp. New Empire Theatre, Bombay-400001. (Int. Decoration—Hobby/Professional); Indo-American Society, Kitab Mahal, 5-D, Sukhadvala Rd. (Raveline St.), Fort, Bombay 400001 (Cert. in Int. Decoration); Sir J.J. College of Architecture, Dr. D.N. Rd., Bombay 400001. (Dip. & Deg. in Architecture & Town Plng.); Kareer Polytechnic, 5, Waudby Rd. (Hazarimal Somani Marg), Near Capitol Cinema, Bombay-400001 (Int. des. & dec.); Seva Mandal Education Society, Smt. Maniben M.P. Shah Women's College, 338, R.A. Kidwai Rd., Matunga (King's Circle), Bombay 400019 (Int. decoration).

Chandigarh: Govt. Polytechnic for Women, Sector 10, Chandigarh (Dip. in Architectural Assistantship, Radio Engg., Int. Decoration & Display, Electronics).

Delhi: K.G. Polytechnic, Kashmere Gate, Delhi (Dip. in Architecture, Engg.—Civil, Elect. & Mech., National Dip. in Arch); New Delhi Polytechnic for Women, J-23, South Extension, Part I, New Delhi (Dip. in Commercial Art and Interior Decoration & Display); School of Planning & Architecture, 4 Block B, Indraprashta Estate, New Delhi 1 (Dip. in Architecture Urban design—Town & Country Plng. also with specialisation in Urban and Regional Plng. Transportation Plng. and Landscape Architecture); Women's Polytechnic, Maharani Bagh, New Delhi (Nat. Dip. in Commercial & Architectural Assistantship).

Journalism:

Maharashtra: Bombay Adult Education Assoc., Cama Hall Bldg., Near Museum, 136, Shahid Bhagat Singh Rd., Bombay 400023 (Creative Writing & Journalism); Courses and Career Centre, Indian Instts., Near V.T. Station, Opp. New Empire Theatre, Bombay-400001 (Journalism); Indian Instt. of Cybernetics, B-10, Kumar Society, Nanda Patkar Rd., Vile Parle (E), Bombay-400057 (Photo-Journalism); Pranlal Devkaran Nanjee College of Communication & Mgmt., K.M. Munshi Marg, Bombay 400007 (Journalism); Sophia College Polytechnic, Bhulabhai Desai Rd., Bombay 400026 (Mass Communications).

Languages:

Maharashtra: Alliance Francaise de Bombay, Theosophy Hall, New Marine Lines, Bombay 400020 (French); Bombay Adult Education, Cama Hall Bldg., 136, Shahid Bhagat Singh Rd., Opp. Museum, Bombay 400023 (Arabic, Bengali, English, French, German, Gujarati, Hindi, Kannada, Marathi, Spanish & Urdu); Courses and Career Centre (4 centres), Near V.T. Station, Indian Instts., Opp. New Empire Theatre, Bombay 400001 (Arabic, English, French & German); Davar's College, 51, Mahatma Gandhi Rd., Fort, Bombay 400001 (Arabic & English); Hotel Mgmt. Polytechnic, 105, Doctor Centre, Near Shalimar Hotel, Kemp's Corner, Bombay (English & French); Indo-American Society, Kitab Mahal, 5D, Sukhadvala Rd. (Raveline Street), Fort, Bombay 400001 (Conversational English & French); Max Mueller Bhavan, Prince of Wales Museum Annexe, Off M.G. Rd., Bombay 400023 (German).

Management:

Andhra Pradesh: Instt. of Correspondence Studies, Himayatnagar, Hyderabad 500029 (I.C.W.A., I.C.M.A., A.M.I.B.M. Part A&B, C.A.,. G.D.C.S., A.I.B.M.).

Gujarat: Indian Instt. of Computer Mgmt., B-4, Samet, Keshav Nagar, Ahmedabad 380027.

Maharashtra: Bombay Instt. of Commerce, 115, Himalaya House, Palton Road, Bombay 400001 (Dip. in Taxation); Courses and Career Centre, Indian Instts., Near V.T. Station, Opp. New Empire Theatre, Bombay-400001 (Materials Mgmt., Mgmt. Skills, Public Relations); Dahanukar Instt. of Mgmt., Dixit Rd., Vile Parle (E), Bombay 400057 (Post Graduate Dip. in Business, Marketing, Industrial, Financial, Materials & Personnel Mgmt.); Datamatics Corporation, Datamatics Instt. of Mgmt., Bombay Mutual Bldg., 293, Dr. D.N. Rd., Bombay 400001 (Post Graduate Dip. in Business & Industrial Mgmt. Marketing Mgmt. & Advertising); Davar's College, 51, Mahatma Gandhi Rd., Fort, Bombay 400001 (Dip. in Business Mgmt.); EMCONS, Mgmt. Trng. Div., Kitab Mahal, Bastion Rd., Bombay 400001 (Dip. in Business Mgmt.); Indian Intnl. Trade Centre (IITC), 59 Nariman Bhavan, Nariman Pt., Bombay 400021 (Dips. in Export-Import Mgmt., Intnl. Banking Mgmt., Business & Marketing Mgmt., Small-scale Industry Business Mgmt.); Instt. of Mgmt. Devpt. & Research, Pune-411004 (Master's Dip. in Business Admn.—MDBA, Dip. in Business Mgmt.—DBM. Marketing Mgmt. & Materials Mgmt.); Institute of Mgmt. Studies, 1/35, Tardeo A.C. Market Bldg., Tardeo, Bombay 400034 (oral postal course for Jamnalal Bajaj Institute, IIM, GMAT, GRE); Institute of Mgmt. and Professional Studies, Parle Tilak Vidyalaya Assocs., C/o Mulund College of Commerce, Mulund (W), Bombay 400080 (Dip. in Business Mgmt., Production, Engineering & Industrial Mgmt., Computer & Materials Mgmt., C.A., G.C.D. and CAIIB); K.C. College of Mgmt. Studies, Dinshaw Wachha Rd., Churchgate, Bombay 400020 (Dip. in Tax Plng. & Tax. Mgmt.); Pranlal Devkaran Nanjee College of Communication and Mgmt., Bharatiya Vidya Bhavan, K.M. Munshi Marg, Bombay 400007 (Dip. in Marketing and Sales Mgmt. Industrial Relations & Personnel

Mgmt., Business Mgmt.); S.I.E.S. Instt. of Mgmt. Studies, S.I.E.S. College, Sion (W), Bombay 400022 (Dip. in Marketing, Production, Finance, Computer, Materials and Business Mgmt.); Siddharth Institute of Industry & Administration, Anand Bhavan, Dr. D.N. Rd., Fort, Bombay 400023 (Master in Business Admn., Dip. in Business Mgmt. & other Mgmt. courses); Silk and Art Silk Mills Research Assocn., Sasmira, Sasmira Marg, Worli, Bombay 400025 (Dip. in Mgmt. & Marketing of Man-made Textiles); Small Industries Service Instt., Kurla-Andheri Road, Saki Naka, Bombay 400072 (Sepcialised course on Personnel Mgmt. and Industrial Relations for Small Industries); Somaiya Instt. of Mgmt. Studies and Research, K.J. Somaiya College of Arts & Commerce, Vidyanagar, Vidyavihar, Bombay 400077 (Post-Graduate Dip. course in Mgmt. Studies); Xavier Instt. of Mgmt., St. Xavier's College, Bombay 400001 (Dip. in Mgmt. of Personnel, Business, Marketing, Industrial and Export).

Tamil Nadu: Academy of Mgmt. Sciences and Studies, No. 5, Padmanabha Nagar, Adyar Tri-Junction, Madras 600020 (Dip. in Business and Industrial Marketing, Exports Marketing, Purchasing & Materials, Personnel Mgmt.).

West Bengal: Indian Instt. of Mgmt., Emerald Bower, 56/A, B.T. Rd., Calcutta 700050 (Programmes in Mgmt. Junior Executives); Operational Res. Socy. of India, 7/3, Mandevile Gardens, Calcutta 700019 (Graduate course in Operational Research).

Marine Training:

Maharashtra: Training Ship 'Rajendra', Bombay (Rajendra Final passing out cert.).

West Bengal: Marine Engg. Trng., New Taratola Rd., Calcutta (Cert. in Marine Engg. Trng.).

Medicine, Public Health & Population:

Ayurveda:

Assam: Assam Ayurvedic College, Gauhati (D.A.M.S.).

Bihar: Govt. Ayurvedic College, Patna (G.A.M.S.); Sri Y.N.A. Aslaing Ayurvedic College Bhagalpur (G.A.M.S.).

Gujarat: Ayurvedic Mahavidyalaya, Jamnagar (B.S.A.M.); O.H. Nazr Ayurvedic Mahavidyalaya, Surat (G.F.A.M.).

Haryana: Mahila Ayurvedic College, Khanpur Kalan, Sonepat.

Karnataka: Bangalore Ayurvedic College, Bangalore (Dip.); Taranath Ayurveda Vidyapith, Bangalore (D.S.A.C.).

Madhya Pradesh: Awantika Ayurveda Mahavidyalaya, Ujjain (Dip.); Shri Ashtang Ayurveda Mahavidyalaya, Ayurvedic Brahmacharya Ashram, Indore (B.S.M.S.).

Maharashtra: Ayurvedic Mahavidyalaya, Shri Pakwasa Samanvaya Rugnalaya, Nagpur (M.F.A.M., A.V.V.); Marathwada Ayurvedic Mahavidyalaya, Ganesh Park, Jalna (Aurangabad) (M.F.A.M.); R.A. Podar Ayurvedic Medical College, Worli, Bombay (G.F.A.M.).

Punjab: Dayanand Ayurvedic College, Jullundur (G.A.M.S.).

Rajasthan: Birla Sanskrit Ayurvedic College, Pilani.

Uttar Pradesh: Arjun Darshanand Ayurvedic Vidyalaya, Varanasi (A.M.B.S.).

West Bengal: Nalini Ranjan Ayurveda Pratisthan, 123, Harish Mukherjee Road, Calcutta (A.S.F.).

Delhi: Ayurvedic and Unani Tibba College, Delhi.

Homoeopathy:

Andhra Pradesh: Amarjeevi Potti Sriramulu Govt. Homoeo. Medical College, Hyderabad (Dip. in D.H.M.S.); Dr. Gurraju Govt. Homoeo. Medical College, Gudivada (Dip. in D.H.M.S.); Dr. Jayasurya Govt. Homoeo. Medical College, Hyderabad (Dip. in D.H.M.S.).

Bihar: Bihar Homoeo. Medical College and Hospital (D.M.S.); Mibijain Inst. of Homoeo., Mibijain P.O., Santhal Parganas Dist. (M.M.I.H., D.M.S., F.M.I.H., Dip. in H. Pharm.); Patna Homoeo. Medical College & Hospital, Gardenbag Road, No. 4, Extension, Patna 1 (M.S. & D.H.M.S.); Singhbhum Homoeo. Medical College & Hospital, Jamshedpur (D.M.S., D.H.M.S.).

Gujarat: Gujarat Homoeo. Medical College, Savli, Dist. Baroda (Dip. in Homoeo. Medicine & Surgery).

Karnataka: A.M. Shaikh Homoeo. Medical College, Belgaum (Dip. & Deg. in Homoeo.); Hanemann College of Homoeo. Medicine, 33, Aga Abbas Ali Road, Bangalore-42 (Dip. in L.C.E.H., Deg. in G.C.E.H.); Homoeopathic Medical College, Bhartesh, Poona-Bangalore Road, Belgaum 590016; Karnataka Homoeo. Medical College, Hubli, Dharwar Dist. (Dip. in L.C.E.H. & Deg. in G.C.E.H.); Moulana Azad Homoeo. Medical College and Hospital, Malamaddi Desai Compound, Dharwar (Dip. & Degree course in Homoeo.).

Kerala: Athurasramam Homoeo. College, Sachivothamapuram P.O., Kottayam (D.H.M. & Surgery); Trivandrum Homoeo. Medical College (Dip. in Homoeo. Med. & Surgery).

Madhya Pradesh: The Homoeo. & Biochemic Medical College, Bilaspur (D.H.B.); Pt. Ravishankar Shukla Memorial Homoeo. Medical College, Paliwal Bhawan, 152, Imali Bazar, Indore City 2 (D.H.B.).

Maharashtra: Bombay Homoeo. Medical College, Irla Naka, Vile Parle (W), Bombay 400056 (L.C.E.H.); Nagpur College of Homoeo. and Biochemistry, Near Gandhi Sagar, (Jumna Tank) Mahal, Nagpur 2 (D.H.B.).

Orissa: Govt. Homoeo. College, Bhubaneshwar (D.H.M.).

Uttar Pradesh: Allahabad Homoeo. Medical College, Allahabad; Ghazipur Homoeo. Medical College & Hospital, Ghazipur (B.M.S.).

West Bengal: Kharagpur Homoeo. Medical College & Hospital, Kharagpur P.O., Midnapore (D.M.S.).

Delhi: Nehru Homoeo. Medical College & Hospital, 'B' Block, Defence Colony, New Delhi.

General:

Andhra Pradesh: Govt. Polytechnic for Women, Kakinada (Dip. in Pharmacy); Kamla Nehru Polytechnic for Women, Hyderabad (Dip. in Pharm.).

Kerala: Medical College, Trivandrum (Cert. in Gen. Nursing, Health Inspector's Course, Public Health Course, Radiological Assistants, Dental Mechanic & Dental Hygienists Course, Laboratory Technician).

Madhya Pradesh: Govt. Women's Polytechnic, Bhopal (Dip. in Med. Lab. Tech.).

Maharashtra: Bandra Holy Family Hospital, School of Nursing, Bandra, Bombay 400050 (Dip. in Midwifery); Bombay College of Pharmacy, Kalina, Bombay 400029 (Dip. in Pharm.); Chatrapati Pramila Raji Hospital, 2955-C Ward, Kolhapur (Gen. Nursing & Midwifery Cert.); International Institute for Population Studies, Deonar, Bombay 400088 (Cert. & Dip. in Demography, Dip. in Family Plng. Communication Action Research); Occupational Therapy Trng. Centre, Parel, Bombay 400012 (Dip. in Occupational Therapy); Physiotherapy Trng. Centre, Bombay (Dip. in Physiotherapy); Poona College of Pharmacy, Saikpura, Bhavani Peth, Pune 411002 (Dip. in Pharm.).

Manipur: Nursing School, Lamphelpat, Imphal (Sr. Cert. in Nursing).

Punjab: Govt. Polytechnic for Women, Jullundur (Dip. in Pharm. and Dresser's Course).

Tamil Nadu: Madras Medical College, Madras (Dip. in Pharm., D.M.C.W.).

Uttar Pradesh: Unani Medical College, Allahabad (F.M.B.S.).

West Bengal: Instt. of Pharmacy, Jalpaiguri (Dip. in Pharm.).

Delhi: Hamdard College of Pharmacy, Tughlaqabad, New Delhi 110062 (Dip. in Pharm.); Physio Occupational Therapy Trng. Instt., 4 Rouse Avenue, New Delhi (Dip. in Physio Therapy & Occupational Therapy); Women's Technical Trng. Instt., Ashoka Rd., New Delhi (Dip. in Med. Lab. Tech.).

Goa: Goa College of Pharmacy, Panaji (Dip. in Pharm., Lab. Tech.); Govt. School of Nursing, Panaji (Cert. in Auxiliary Nursing & Midwifery).

Pondicherry: School of Nursing, Pondicherry (Dip. in Nursing & Midwifery).

Physical Education: (For training in self-defence see Self-defence).

Bihar: Govt. College of Health and Physical Education, Patna (Dip.).

Gujarat: C.P. Vyayam Mahavidyalaya, Rajpipla (Via Ankleshwar). Dist. Broach (Dip.); Seth C.N. Vyayam Vidya Bhavan, Ahmedabad (Dip.).

Kerala: Govt. College of Physical Education, Trivandrum (Dip.); Physical Education College, Calicut (Dip.).

Madhya Pradesh: Tatya Tope State College of Physical Education, Shivpuri (Cert. & Dip.).

Maharashtra: Kreeda Mandals Nagpur Shramik Shikshan Mahavidyalaya, Vidya Nagar, Umred Rd., Nagpur 3 (Cert. & Dip.); Physical Education Instt.. Maharashtra Mandal, Pune (Cert.)

Orissa: Govt. College of Physical Education, Cuttack (Cert.).

Rajasthan: Govt. College of Physical Education, Jodhpur (Cert. & Dip.).

Tamil Nadu: Alagappa College of Physical Education, Karaikudi 4 (Teachers' Cert. in Phy. Edu.); Sri Ramakrishna Mission Vidyalaya, Marudi College of Physical Education, Perianaickenpalayam (Cert.); Y.M.C.A. College of Physical Education, Saidapet, Madras (Post. Dip., Dip. & Cert., also Dip. for Women).

Uttar Pradesh: Christian College of Physical Education, Lucknow (Cert.); Govt. College of Physical Education for Women, Allahabad (Dip. and Cert.); Gurukul Vishwa Vidyalaya, Vrindavan, Mathura (Cert.).

Printing Technology:

Gujarat: National Instt. of Design, Paladi, Ahmedabad.

Karnataka: School of Pr. Technology, Mysore (Dip. in Letter Press Group, Lithographic Group); Shri Jayachamarajinder Polytechnic, Bangalore.

Kerala: Govt. School of Pr. Technology, Sarnam, Instt. of Pr Technology, Shoranur (Dip. in Pr. Tech.)

Madhya Pradesh: Anil Pataria, CR-7, RDA Bldg., Sharda Chowk, Raipur 492001 (Colour Processing & Pr.).

Maharashtra: P.D.N. College of Communication & Mgmt., Bharatiya Vidya Bhavan, K.M. Munshi Marg, Chowpatty, Bombay 400007 (Dip. in Pr. Technology); School of Pr. Technology, Dr. D.N. Road, Bombay 400001 (Dip. in Pr. Tech.—Letterpress & Lithography); Spencer Memorial College, Aundh Road, Ganesh Khand, Pune 411007.

Tamil Nadu: Regional School of Pr., Adyar, Madras 600020 (Dip. in Letterpress Group, Lithographic Art, Cert. in Pr.)

Uttar Pradesh: Northern Regional School of Pr. Technology, Allahabad (Dip. in Letterpress, Pr. & Lithography).

West Bengal: The Regional Instt. of Pr. Technology, Jadavpur, Calcutta (Lic. in Pr. and Graphic Art—L.P.G.A.).

Remote-sensing:

Uttar Pradesh: Indian Photo Interpretation Instt., 4, Kalidas Rd., Post Box No. 135, Dehra Dun 248001 (Course in Remote-sensing application).

Self-defence:

Maharashtra: S.N.D.T. Women's Univ., 1, Nathibai Thackersey Road, Bombay 400020 (classes in Ketsugo—a combination of Karate, Savate, Judo & Aikido).

Social Service:

Gujarat: Gandhi Vidyapith, Vedachhi (Surat) (Dip. in Sociology); Lok Bharati, Lok Sewa Mahavidyalaya, Sanosara (Dip. in Rural Services, Cert. in Agri. & Lok Shikshan & Agri. Graduation Course).

Maharashtra: Bombay Labour Instt., Parel, Bombay 400012 (Dip. in Labour Welfare).

Orissa: Social Education Organisers' Trng. Centre, Laxmisagar, Bhubaneshwar-1 (Cert. in Soc. Edu.).

West Bengal: Indian Instt. of Social Welfare and Business Mgmt., College Square, Calcutta (Dip. in Gen. Soc. Welfare).

Statistics:

Andhra Pradesh: Indian Instt. of Economics, Himayatnagar, Hyderabad (Cert. in Statistical methods & Applications).

Delhi: Statistical Branch of Indian Council of Agricultural Res., New Delhi (Dip. & Cert. in Agri. Stat., Statisticians Cert. course in Agri. Stat.)

Teachers' Training:

Assam: Post Graduate Trng. College, Jorhat (Dip.).

Bihar: Teachers' Trng. College, Bhagalpur (Dip.); Teachers' Trng. College, Ranchi (Dip.).

Gujarat: Graduate Basic Trng. Centre, Porbandar (Dip.); Shiksha Mahavidyalaya, Ahmedabad (Dip.).

Haryana: Govt. J.B.T. School, Bahadurgarh, Rohtak (Cert.); Govt. J.B.T. School, Kurukshetra (Cert.).

Himachal Pradesh: St. Bede's College, Shimla (Art. & Craft Teachers' Cert.); Trng. College, Dharamsala (Arts & Crafts Teachers' Cert., Cert. in Oriental Languages).

Jammu & Kashmir: Teachers' Trng. School, Anantnag (for men) (Basic Edu. Course); Teachers' Trng. School for Women, Anantnag (Basic Edu. Course); Teachers' Trng. School (Co-ed.); Teachers' Trng. School for Women, Srinagar; Teachers' Trng. School for Women, Sopore, Baramulla.

Karnataka: Govt. Trng. College for Women, Mysore (Teachers' Trng. course in Domestic Science—T.C.D.).

Madhya Pradesh: Kala Niketan, Jabalpur (Hr. Sec. School Teachers' Cert.).

Maharashtra: Gandharva Mahavidyalay Mandal, Pune (Music Teachers' Trng.); Instt. of Vocational Guidance & Selection, 3, Cruickshank Road, Bombay-400001 (Dip. in Vocational Guidance. Career Master's Cert.); J.J. School of Arts, Bombay (Drawing Teachers' Cert.).

Manipur: Hindi Teachers Trng. Instt., Imphal (Cert. in Teaching—Hindi).

Meghalaya: Govt. Normal Trng. School, Cherrapunji, P.O. Cherrapunji, Khasi Hills (Normal Teachers' course).

Orissa: Basic Trng. School Raj Sunakhala, Puri (Cert.); Hind Teachers' Trng. College, Bhubaneshwar (C.T.); Secondary Trng School for Women, Cuttack (C.T.); Secondary Trng. School fo Women, Sambalpur (C.T.); Thompsons Women's Trng. Insttn. Cuttack (C.T.).

Punjab: D.A.V. High School, Dera Basi (Patiala) (Art & Cra Teachers' Cert.); Dayanand Trng. Instt., Nawanshahr Daoba (A & Craft Teachers' Cert.); Govt. Industrial School for Girls, Amri sar (Art & Craft Teachers' Cert.); Govt. Industrial School for Girl Jullunder (Art & Craft Teachers' Cert.); S.G. Ravi Dass Basic Trn School for Girls, Jullunder (Art & Craft Teachers' Cert.); Vid Sahayak Sabha, Jullunder (Art & Craft Teachers' Cert.).

Tamil Nadu: Alagappa College of Physical Education, Karaiku (Teachers' Cert. in Physical Education).

Uttar Pradesh: City Montessori School, Lucknow (C.T.—Nursery Govt. Nursery Trng. College for Women, Allahabad (C.T.- Nursery); Govt. Nursery Trng. College for Women, Agra (C.T. Govt. Trng. College for Women, Lucknow (C.T.); Govt. Wo Working Instt., Allahabad (Dip. in T.T.C.—Wood Work); Bagh Girls Higher Secondary School, Lucknow (C.T.—Nurser Queen Victoria Trng. Instt. for Women, Agra (C.T.); Trng. Colle for Teachers of Schools for Deaf, Lucknow (C.T.).

West Bengal: Gokhale Memorial Girls' College, 1/1 Harish Mukhe jee Road, Calcutta (Under-Graduate T.T.C.); Govt. College Arts & Crafts, 28 Chowringhee Rd., Calcutta (Dip. in Teachin

Decorative Art & Craft); Loretto College, 7, Middleton Row, Calcutta (Under-Graduate T.T.C.).

Andaman & Nicobar Islands: Govt. Junior Basic Teachers' Trng. Instt., Port Blair (Dip. in Teachers' Trng.).

Chandigarh: Central Crafts Instt. for Women, Sector 11, Chandigarh (Craft Teachers' Trng. Cert.) (J.B.T.—Home Crafts).

Delhi: Manav Bharti Instt. of Child Education and Child Psychology, 11, Feroz Gandhi Rd., New Delhi (Dip. in Nursery and Infant Teachers' Trng.); Nursery Teachers' Trng. Instt., Poorvi Marg, New Delhi (Dip. in Nursery Education).

Goa: Govt. Teachers' Trng. College, Porvorim (P.T.C.).

Mizoram: Under-Graduate Teachers Trng. Instt. (Middle Section), Chaltlong, Aizawl (Cert. in T. Trng.).

Pondicherry: Teacher Trng. Centre, Pondicherry (Secondary Grade T.T.C.).

Travel and Tourism:

Maharashtra: Courses and Career Centre, Indian Instts., Near V.T. Station, Opp. New Empire Cinema, Bombay 400001; Davar's College, 51, Mahatma Gandhi Rd., Fort, Bombay 400001 (Dip. in Travel, Transportation & Tourism); Directorate of Technical Education, Maharashtra (Cert. & Dip.); Indian Intnl. Trade Centre (IITC), 59, Nariman Bhavan, Nariman Point, Bombay 400021 (Dip. in Intnl. Travel and Tourism Mgmt.); Oxford Instt. of Commerce and Mgmt., 102,, Nirmala Apartments, Jaya Prakash Rd., Near Rajkumar Hotel, Andheri (W), Bombay 400058 (Dip. in Travel and Tourism Mgmt.); Pranlal Devkaran Nanjee College of Communication and Mgmt., Bharatiya Vidya Bhavan, K.M. Munshi Marg, Bombay 400007 (Dip. in Tourism & Travel Mgmt.); Y.M.C.A. School of Commerce and Management, 12, N. Parekh Marg (Opp. Regal Cinema), Bombay 400039 (Dip.).

Veterinary Science:

Assam: Veterinary Field Assistants' Instt., Ghongoor, Cachar (C.V.F.A.)

Maharashtra: Trng. Centre in Sheep and Wool Production, Pune 411016 (Dip. in Sheep and Wool Production).

Uttar Pradesh: Indian Veterinary Research Instt., Izatnagar (Associateship of I.V.R.I., Dip. in Animal Husbandry, Poultry, Husbandry and Preventive Veterinary Medicine Cert. Course in the Technique of Manufacture of Biological Products and Artificial insemination).

Yoga:

Jammu & Kashmir: Aparna Ashram, Mantalai, Dist. Udhampur (Dip. in Yoga).

Maharashtra: Yoga Instt., Santa Cruz (W), Bombay 400054 (Cert.). Yoga Institute, The Prabhat Colony, Santa Cruz (East), Bombay.

Delhi: Aparna Ashram, A-50, Friends Colony, Main Mathura Rd., New Delhi 110065 (Dip. in Yoga).

MERCHANT NAVY TRAINING INSTITUTIONS

Merchant Navy Training Board at Jahaz Bhavan, Walchand Hirachand Marg, Bombay 400038, advises Government on all matters pertaining to the training of merchant navy personnel.

Shri Narotam Morarjee Institute of Shipping, 76, Jolly Maker Chambers No. 2, Nariman Point, Bombay 400021, imparts training and conducts examinations in subjects pertaining to the commercial side of shipping—chartering, ship broking practice, marine insurance etc.

The Government of India has set up six training establishments for the training of merchant navy officers and ratings. The training ship **"Dufferin"** which started functioning in 1929 was replaced by T.S. **"Rajendra"** in 1972. It provides pre-sea training facilities of one year duration for navigating cadets. The new training ship has an intake of 250 cadets per year. The **Directorate of Marine Engineering Training** at Bombay and Calcutta provides four years' course for engineering cadets. The boys desirous of undergoing training in the "Rajendra" as well as D.M.E.T. are selected on the basis of marks obtained and are drawn from all parts of the country through a competitive entrance examination followed by interviews and medical and eyesight tests.

Rules for Entry into T.S. **"Rajendra"** and D.M.E.T. are as follows: **Age Limit:** Candidate must have completed 16 years of age and must not have exceeded 20 years on September 1 of the year of entry. **Eligibility:** A candidate is eligible provided he has passed intermediate science examination of any University with mathematics and physics.

The pre-entry qualifications for engineering cadets for entry into D.M.E.T. is a pass in higher secondary examination or equivalent of a recognised board of secondary examination or a University in the science stream with physics, chemistry and mathematics as elective subjects. The duration of the course is 4 years.

The Lal Bahadur Shastri Nautical and Engineering College at Hay Bunder, Tank Road, Bombay 400033 provides post-sea training instructional courses for both navigating and engineering officers and apprentices who are preparing for Ministry of Transport Certificates of Competency Examination. There is a Life Boat School attached to the college.

Candidates with the requisite educational qualification and within the age group prescribed for "Rajendra" and D.M.E.T. training are also admitted by shipping companies as Direct Entry Cadets. The Shipping Corpn. of India and the Great Eastern Shipping Company have established special pre-sea training schemes of their own for such cadets.

Ratings' Training Establishments: The Training Ships **"Bhadra"** (Calcutta), **"Mekhala"** (Visakhapatnam) and **"Naulakhi"** (Navlakhi, Gujarat) are ratings' training establishments. These institutions provides a six months' course for deck and engine room ratings. Candidates between the age group 18 to 22 with minimum educational qualification of 8th standard pass are eligible for admission, if medically fit. Advertisements are published in all important newspapers in India in different languages once in a year or when necessary for selection of candidates for pre-sea training courses and they are selected on merits after an interview at Bombay by the Director, Seamen's Employment Office and at Calcutta, Navlakhi and Visakhapatnam by the respective Captain Superintendents of the training ships according to the number required each year.

MEDICAL COLLEGES: The list of 106 Medical Colleges:

Andhra Pradesh: Andhra Med. Coll., Visakhapatnam 530001; Gandhi Med. Coll., Hyderabad 500020; Guntur Med. Coll., Guntur 522001; Kakatiya Med. Coll., Warangal 506002; Med. Coll., Kurnool 518001; Osmania Med. Coll., Hyderabad 500001; Rangaraya Med. Coll., Kakinada 533001; S.V. Med. Coll., Tirupati 517501.

Assam: Assam Med. Coll., Dibrugarh 786001; Gauhati Med. Coll., Gauhati 781001; Silchar Med. Coll., Silchar 788014.

Bihar: Bhagalpur Med. Coll., Bhagalpur 812002; Darbhanga Med. Coll., Laheria Sarai 846003; M.G.M. Med. Coll., Sakchi, Jamshedpur 831012; Magadh Med. Coll., Gaya 823001; Nalanda Med. Coll., Patna 800001; Patliputra Med. Coll., Dhanbad 826001; Patna Med. Coll., Patna 800004; Rajendra Med. Coll., Ranchi 834009; Sri Krishna Med. Coll., Muzaffarpur 842001.

Delhi: All India Instt. of Med. Sciences, Ansari Nagar, N. Delhi 110016; Lady Hardinge Med. Coll., N. Delhi 110001; Maulana Azad Med. Coll., N. Delhi 110001; University Coll. of Med. Sciences, Delhi 110005.

Goa: Goa Med. Coll., Panaji 403001.

Gujarat: B. Jijibhai Med. Coll., Ahmedabad 380001; Govt. Med. Coll., Surat 395001; Govt. Med. Coll., Vadodara 390001; M.P. Shah Med. Coll., Jamnagar 361001; Smt. N.H. Municipal Med. Coll., Ahmedabad 380006.

Haryana: Govt. Med. Coll., Rohtak 124001.

Himachal Pradesh: H.P. Med. Coll., Shimla 171001

Jammu & Kashmir: Govt. Med. Coll., Srinagar 190001; Govt. Med. Coll., Jammu 180001.

Karnataka: Bangalore Med. Coll., Bangalore 560002; Govt. Med. Coll., Bellary 583101; J.J.M. Med. Coll., Davangere 577004; J.L. Nehru Med. Coll., Belgaum 590001; Karnataka Med. Coll., Hubli 580022; Kasturba Med. Coll., Manipal 576119; M.R.

Med. Coll., Gulbarga 585105; Mysore Med. Coll., Mysore 570001; St. John's Med. Coll., Bangalore 560034.

Kerala: Med. Coll., Calicut 673008; Med. Coll., Kottayam 686001; Med. Coll., Trivandrum 595011; T. Devaswom Med. Coll., Alleppey 688005.

Madhya Pradesh: G.R. Med. Coll., Gwalior 474001; Gandhi Med. Coll., Bhopal 477001; Govt. Med. Coll., Jabalpur 482001; J.L. Nehru Med. Coll., Raipur 492001; M.G.M. Med. Coll., Indore 452001; S.S. Med. Coll., Rewa 486001.

Maharashtra: Armed Forces Med. Coll., Pune 411001; B.J. Med. Coll., Pune 411001; Dr. V.M. Med. Coll., Sholapur 413001; Govt. Med. Coll., Aurangabad 431001; Grant Med. Coll., Bombay 400008; Indira Gandhi Med. Coll., Nagpur 440001; L.T.M. Med. Coll., Sion, Bombay 400022; M.G. Instt. of Med. Science, Sevagram 442102; Med. Coll., Nagpur 440001; Miraj Med. Coll., Miraj 416410; S.R.T.R. Med. Coll., Ambajogai 431517; Seth G.S. Med. Coll., Bombay 400012; T.N. Med. Coll., Bombay 400008; Medical College, Nagpur.

Manipur: Regional Med. Coll., Imphal 795001.

Orissa: Maharaja K.C. Gajapati Med. Coll., Berhampur 760004; S.C. Bhanj Med. Coll., Cuttack 753007; V.S. Sai Med. Coll., Burla, Sambalpur 768017.

Pondicherry: Jawaharlal Nehru Instt. of Post-Graduate Medical Educ. & Research, Pondicherry 605006.

Punjab: Christian Med. Coll., Ludhiana 141001; Dayanand Med. Coll., Ludhiana 141001; Govt. Med. Coll., Amritsar 143001; Govt. Med. Coll., Patiala 147001; Guru Govind Singh Med. Coll., Faridkot 151203.

Rajasthan: Dr. S.N. Med. Coll., Jodhpur 342001; J.L. Nehru Med. Coll., Ajmer 305001; R.N. Tagore Med. Coll., Udaipur 313001; S.P. Med. Coll., Bikaner 334001; Sawai Mansingh Med. Coll., Jaipur 302001.

Tamil Nadu: Chengalpattu Med. Coll., Chengalpattu 603001; Christian Med. Coll., Vellore 632002; Kilpauk Med. Coll., Madras 600010; Med. Coll., Madras 600001; Med. Coll., Madurai 625020; Med. Coll., Thanjavur 613004; Med. Coll., Tirunelveli 627001; Stanley Med. Coll., Madras 600001; Medical College, Coimbatore.

Uttar Pradesh: B.R.L. Med. Coll., Gorakhpur 273001; G.S.V. Med. Coll., Kanpur 208002; Instt. of Med. Sciences, Varanasi 221005; K.G. Medical Coll., Lucknow 226003; L.L.R.M. Med. Coll., Meerut 250001; M.L.B. Med. Coll., Jhansi 284001; Med. Coll., Aligarh 211001; Motilal Nehru Med. Coll., Allahabad 211001; S.N. Med. Coll. Agra 282001.

West Bengal: B.S. Med. Coll., Bankura 722101; Burdwan Med. Coll., Burdwan 713101; Calcutta National Med. Coll., Calcutta 700014; Med. Coll., Calcutta 700014; Nilratan Sarcar Med. Coll., Calcutta 700073; North Bengal Med. Coll., Sashuro Thanagor, Siliguri 734101; R.G. Kar Med. Coll., Calcutta 700004.

PHARMACY COLLEGES

Andhra Pradesh: †Arts and Science College, Warrangal 506002; †*Dept. of Pharmacy, Univ. Coll. of Science & Technology, Andhra Univ. Waltair 530004; *Govt. Polytechnic, Hyderabad 500001; *Govt. Polytechnic for Women, Kakinada 533001; *Govt. Polytechnic, Visakhapatnam 530001; *Govt. Polytechnic for Women, Guntur 522001; Kamala Nehru Women Polytechnic, Mukarram Jahi Rd., Hyderabad 500001; *S.V. Govt. Polytechnic, Tirupati 517501; Govt. Polytechnic for Women, Guntur 522001; Sri Padmavati Women Polytechnic, Tirupati 517501.

Assam: *Instt. of Pharmacy, Assam Med. Coll., Dibrugarh 786004.

Bihar: †*Birla Instt. of Technology, Ranchi, 834001; *Pharmacy School, Patna 800008; †Ram Lakhan Singh Mahavidyalaya, Anisabad, Patna 800002; Dr. Ram Manohar Lohia Memorial Pharmacy School, Ranchi 834001; *School of Pharmacy, Gulzarbagh, Agam Kuan, Patna 800007.

Chandigarh: *Govt. Polytechnic for Women, Chandigarh 160003; *Dept. of Pharmaceutical Sciences, Punjab Univ., Chandigarh 160014.

Delhi: *Coll. of Pharmacy, Pusa, N. Delhi 110012; †*Hamdard Coll. of Pharmacy, Madangir, N. Delhi 110062.

Goa: †*Goa Coll. of Pharmacy, Panaji 403001.

Gujarat: Govt. Polytechnic, Rajkot 360001; L.M. Coll. of Pharmacy. Ahmedabad 380009; Pharmacy Deptt., Deptt. of Technology & Engg., M.S. Rao Univ., Vadodara 390002; *Shri Mohan Lal Narain Das Coll. of Pharmacy, Bethak Rd., Cambay 388620.

Haryana: *Govt. Tech. Instt. for Women, Ambala City 133003; Hindu Coll. of Pharmacy, Sonepat 131001; Janata Coll. of Pharmacy, Butana 124302; Med. Coll., Rohtak 124001.

Karnataka: B.E.S. School of Pharmacy, Davangere 577001; C.S. Instt. of Pharmacy, Harapanahalli 583131; †*Coll. of Pharmacy, Kasturba Med. Coll., Manipal 576119; Farooqui Instt. of Pharmacy, Mysore 577001; Govt. Coll. of Pharmacy, Lal Bagh, Bangalore 560002; H.K.E. Society's Coll. of Pharmacy, M.R. Med. Coll., Gulbarga 585101; *J.S.S. Coll of Pharmacy, Ramayana Rd., Mysore 570001; K.L.E. Society's School of Pharmacy, Belgaum 590002; Madan Mohan Instt. of Pharmacy, Bidar 585401; *Municipal Coll. of Pharmacy, Chikballapur 562101; †Nat. Educ. Society's Instt. of Pharmacy, Shimoga 577201; School of Pharmacy, Rajaji Nagar, Bangalore 580002; Sri Basaweshwar Science Coll., Bagalkot 587101; *V.L. Coll. of Pharmacy, Raichur 584101.

Kerala: *Calicut Med. Coll., Calicut 673008; *Coll. of Pharmacy, Lisie Hospital, Ernakulam 682011; *Kottayam Med. Coll., Kottayam 686001; *Med. Coll., Trivandrum 695001; *T.D. Med. Coll., Alleppey 688005.

Madhya Pradesh: †*Dept. of Pharm. Sciences, Univ. of Saugar, Saugar 470003; *Holkar Science Coll., Indore 452001; *S.V. Govt. Polytechnic, Bhopal 462001.

Maharashtra: *Armed Forces Med. Coll., Pune 411001; Arts, Science & Commerce Coll., Panchavati, Nasik 422001; Bharati Vidyapeeth's Coll. of Pharmacy, Pune 411001; Bombay Coll. of Pharmacy, Kalina 400029; †*Coll. of Pharm., Karad 415110; †*Coll. of Pharmacy, Ulhasnagar 421001; †*Deptt. of Chem. Technology, Univ. of Bombay, Matunga, Bombay 400019; †*Deptt. of Pharm. Sciences, Nagpur Univ. Campus, Nagpur 440010; Modern Medical Training Instt., Nagpur 440010; *Govt. Polytechnic, Amravati 444601; Govt. Polytechnic, Lajgaon 425001; Kamla Nehru Coll. of Pharmacy, Aurangabad 431001; K.M. Kundnani's Coll. of Pharmacy, Ulhasnagar 421001; N.D.M.V.P. Samaj's Coll. of Pharmacy, Nasik 422001; N.M. Patel Society, Dadar, Bombay 400014; *Poona Coll. of Pharmacy, Sai Krupa, 122, Bhavani Peth, Pune 411001; Premila Vithaldas Polytechnic, S.N.D.T. Women's Univ., Juhu Campus, Bombay 400049; S.V. Bhavsar Education Society, Akot 444101.

Orissa: Instt. of Pharmaceutical Sciences, Berhampur 760001; S.C.B. Med. Coll., Cuttack 735001.

Punjab: *Govt. Med. Coll. Patiala 147001; Govt. Polytechnic for women, Jullundur City 144001; Med. Coll., Amritsar 143001.

Rajasthan: †*Birla Instt. of Tech. & Sciences, Pilani 333031; S.M.S. Med. Coll., Public Health Training Centre, Jaipur 302001.

Tamil Nadu: C.L. Baid Mehta Coll. of Pharmacy, Madras 600001; *Christian Med. Coll., Vellore 632001; J.R.E. Society's Coll. of Pharmacy, Ootacamund 643001; †*Madras Medical Coll., Madras 600001; †*Madura Med. Coll., Madurai 625001.

Tripura: Health Training Instt., Agartala 799001.

Uttar Pradesh: *Dept. of Pharmaceutics, Banaras Hindu Univ., Varanasi 221005; *G.S.V.M. Med. Coll., Kanpur 208001; Govt. Polytechnic, Dwarhat 263653; Govt. Polytechnic Uttarkashi 249193; L.L.M. Med. Coll., Meerut 350002; M.L.N. Med. Coll., Allahabad 211001; S.N. Medical Coll., Agra 282001.

West Bengal: *Dept. of Pharmacy, Jadavpur Univ., Calcutta 700032; Instt. of Pharmacy, Kalyani 741235; Instt. of Pharmacy Jalpaiguri 735101.

DENTAL COLLEGES

Andhra Pradesh: Govt. Dental Coll., Afzalganj, Hyderabad 500012.

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*B. Pharm. approved by the Pharmacy Council of India for the purpose of registration under the Pharmacy Act, 1948.

†Instts. impart post-graduate education.

Assam: Dental Wing. Gauhati Medical College, Gauhati.

Bihar: Dental Coll. and Hospital, Agamkuan, Patna 800007.

Chandigarh: Post-graduate Instt. of Med. Educ. & Research, Chandigarh 160012 (Exclusively for MDs in Pedodontia and Preventive Dentistry).

Goa, Daman & Diu: Goa Dental College, Bambolim (Goa).

Gujarat: Govt. Dental Coll. & Hospital, Assarwa, Ahmedabad 380016.

Haryana: Dental College, Medical Campus, Rohtak 124001; Dental Wing, Medical College, Rohtak.

Karnataka: Coll. of Dental Surgery, Kasturba Med. Coll., Manipal 576119; Dental Coll., Davangere 577004; Govt. Dental Coll., Bangalore 560002.

Kerala: Dental Wing, Medical Coll., Trivandrum 695011; Dental College, Medical College, P.O. Calicut.

Madhya Pradesh: Coll. of Dentistry, Indore 452001.

Maharashtra: Dental Dept., Armed Forces Med. Coll., Pune 411001; Govt. Dental Coll. & Hospital, 1, P.D'Mello Rd., Bombay 400001; Govt. Dental Coll. & Hospital, Nagpur 440003; Nair Hospital Dental Coll., Dr. A. L. Nair Rd., Byculla, Bombay 400008 and Govt. Dental College & Hospital, Aurangabad.

Punjab: Govt. Dental Coll. & Hospital, Amritsar 143001; Dental Wing, Govt. Med. Coll., Patiala 147001.

Tamil Nadu: Madras Dental Coll., Madras 600003; Rajah Muthiah Dental Coll. & Hospital, Annamalainagar 608002.

Uttar Pradesh: Faculty of Dental Sciences, King George's Medical Coll., Lucknow 226003.

West Bengal: Dr. R. Ahmed Dental Coll. & Hospital, 114, Acharya Jagdish Chandra Rd., Calcutta 700014.

SPECIALISED STUDIES: The Dental Council of India has prescribed nine specialised subjects for post-graduate education in dentistry. They are (i) Prosthetic Dentistry, (ii) Oral Surgery, (iii) Operative Dentistry, (iv) Orthodontia, (v) Periodontia, (vi) Oral Diagnosis and Dental Radiology, (vii) Dental Pathology and Bacteriology, (viii) Pedodontia and Preventive Dentistry and (ix) Public Health Dentistry.

Departments in these specialised fields exist in the following Dental Institutions:-

Govt. Dental Coll. and Hospital, Hyderabad, Andhra Pradesh—Orthodontia, Oral Medicine and Radiology, Prosthetic Dentistry and Periodontia.

Government Dental College and Hospital, Ahmedabad, Gujarat—Operative Dentistry, Prosthetic Dentistry; Periodontia, Oral Pathology & Bacteriology, Oral Diagnosis and Dental Radiology, Orthodontia and Oral Surgery.

Govt. Dental College, Bangalore, Karnataka—Orthodontia, Oral Surgery, Periodontia, Oral Diagnosis and Dental Radiology, Operative Dentistry and Public Health Dentistry.

College of Dental Surgery, Kasturba Medical College, Manipal, South Kanara, Karnataka—Orthodontia, Operative Dentistry, Periodontia, Oral Surgery, Prosthetic Dentistry, Oral Diagnosis and Radiology.

Dental Wing, Medical College, Trivandrum, Kerala—Operative Dentistry, Prosthetic Dentistry, Orthodontia, Oral Surgery, Periodontia and Oral Pathology.

Government Dental College and Hospital, Bombay, Maharashtra—Prosthetic Dentistry, Periodontia, Orthodontia, Dental Pathology and Bacteriology, Oral Surgery, Operative Dentistry, Oral Medicine, Diagnosis and Radiology

Govt. Dental Coll. & Hospital, Nagpur—Oral Surgery, Periodontia, Operative Dentistry and Prosthetic Dentistry.

Nair Hospital Dental College, Bombay, Maharashtra—Prosthetic Dentistry, Periodontia, Operative Dentistry, Orthodontia, Dental Pathology & Bacteriology, Oral Medicine, Diagnosis & Radiology, Pedodontics and Oral Surgery.

Punjab Govt. Dental College and Hospital, Amritsar, Punjab—Dental Prosthetics & Crown and Bridge work, Oral Surgery Operative Dentistry, Pedodontia & Preventive Dentistry and Periodontia.

Postgraduate Institute of Medical Education and Research, Chandigarh—Pedodontia and Preventive Dentistry.

Madras Dental College, Madras, Tamil Nadu—Oral Surgery, Periodontia, Orthodontia, Operative Dentistry, Prosthetic Dentistry and Oral Pathology.

Faculty of Dental Sciences, K.G.'s Medical College, Lucknow 226003—Prosthodontics, Periodontics, Orthodontics, Oral Surgery, Pedodontia & Preventive Dentistry and Operative Dentistry.

Dr. R. Ahmed Dental College & Hospital, Calcutta—Prosthetics Dentistry.

Patna Dental College & Hospital, Patna—Prosthetics Dentistry.

Armed Forces Medical College, Pune—Prosthetic, Dentistry and Oral Surgery (For Armed Personnel only).

Institute of Medical Sciences, Varanasi—Operative Dentistry.

Facilities for training of **Dental Mechanics** and **Dental Hygienists** are available at: (1) Government Dental College and Hospital, Bombay, Maharashtra; (2) Madras Dental College, Madras, Tamil Nadu; (3) Govt. Dental College, Bangalore, Karnataka; (4) Faculty of Dental Sciences, K.G.'s Medical College, Lucknow, Uttar Pradesh; (5) Dental Wing, Medical College, Trivandrum; (6) Govt. Dental College & Hospital, Ahmedabad; (7) some centres of Armed Forces for army personnel only; (8) the Institute of Medical Sciences, Banaras Hindu Univ., Varanasi (Dental Mechanic Course only); (9) Govt. Dental Coll. & Hospital, Amritsar; (10) Deptt. of Dental Surgery, Govt. Med. Coll., Jammu (Dental Hygienist Course); (11) S.C.B. Medical College, Cuttack (Dental Hygienist Course); (12) Patna Dental College & Hospital, Patna.

AYURVEDIC COLLEGES FOR DEGREE COURSES

Karnataka: S. J. Institute of Indian Medicine, Bangalore 560001.

Kerala: Ayurveda College, Trivandrum 695001.

Madhya Pradesh: Shri Rajkumar Singh Ayurvedic College, Indore 452001; Mahakoshal Ayurveda Mahavidyalaya, Prem Nagar, Jabalpur 482001; Govt. Ayurvedic College, Amkho, Gwalior 474001; Government Ayurvedic College, Raipur 492001.

Maharashtra: Govt. Ayurvedic College, Nanded 431601; Vidarbha Ayurved Mahavidyalaya, Amravati 444604; R.A. Poddar Medical College, Bombay 400018; Tilak Ayurved Mahavidyalaya, Pune 411011.

Rajasthan: Govt. Ayurved College, Jaipur 302001.

Tamil Nadu: Govt. College of Indian System of Medicine, Palayamkottai 627002.

Uttar Pradesh: Ayurvedic College, Gurukul Kangri Vishvavidyalaya, P.O. Gurukul, Kangri 249404; Sahu Ram Narain M. M. Ayurvedic College, Bans Mandi, Bareilly 243001; State Ayurved College, Lucknow 266001; Ayurveda College, Attara, Banda 242402; Takmilut Tib College, Jhawai Tola, Lucknow 266003; Unani Medical College, Himmatganj, G.T. Rd., Allahabad 211001.

YOGA INSTITUTES

Bihar: Institute of Yoga Research (Bihar Government, Dept. of Cardio-Vascular Diseases), The Prince of Wales Medical College Hospital, Patna 800001.

Gujarat: Yoga Sadhan Ashram, 16, Pritamnagar, Ahmedabad 390006.

Jammu & Kashmir: Aparna Ashram, Mantalai, Dist. Udhampur.

Madhya Pradesh: Saugar University, Dept. of Yogic Studies, Saugar 470001.

Maharashtra: Yoga Institute, Santa Cruz (East), Bombay 400055; Yoga Mahavidyalaya, Khatri Estate, Falkland Rd., Bombay 400008; Kaivalyadhama (Ishwardas Chunilal Yogic Health Centre), N. Subhash Rd., Bombay 400002; Yoga Education Centre, Hindi Vidya Bhavan, 79, Marine Drive, Bombay 400020; G. S. College of Yoga & Cultural Synthesis, Kaivalyadhama, Lonavla, Pune 410401.

New Delhi: Yogashram, Mandir Lane, Behind Lakshmi Narayan Temple, New Delhi 110001; Yoga International Instt., Block F, Lajpatnagar—II, New Delhi 110024; Vishwayatan Yogashram, Alexandra Place, Opp. Gole Post Office, New Delhi 110001.

Tamil Nadu: All India Manava Sevak Samaj, 39, Sullivan Garden Rd., Mylapore, Madras 600004; Kriya Baba Yoga Rehabilitation Centre, 1-A, Arulananda Mudali St., Madras 600004; Prof. T. Krishnamacharya's Yoga Institute, 9, West Circular Rd., Mandavalli Pakkam, Madras 600028; Yoga Centre. Arya Samaj, 107, Lloyds Rd., Madras 600006.

Uttar Pradesh: Bhartiya Yoga Evam Prakritik Chikitsa Vigyan Sansthan (Bhartiya Yoga Evam Prakritik Chikitsa Vigyan Parishad), Katra Khydayar Khan, Lucknow 226003.

Training Teachers for Deaf & Dumb, Blind and Mentally Handicapped.

Central Institute of Teachers of the Deaf, Central Court, 18, Motlibai St., Agripada, Bombay 400011.

Centre for Training Teachers of the Deaf, Lady Noyce School for the Deaf, Kotla Ferozshah, New Delhi 110001

National Academy of the Teachers of the Blind, C/o School for the Blind, Palayamkottai, Tirunelveli.

Training Centre for Teachers of the Deaf, C/o Education Audiology & Research Centre, Punam, 67, Nepean Sea Rd., Bombay 400006.

Training Centre for the Teachers of the Mentally Handicapped Children, Sewri Hill, Bombay 400033.

Training College for the Teachers of the Deaf, Aishbagh, Lucknow 226001.

Training College for the Teachers of the Deaf, Calcutta Deaf & Dumb School, 293, A.P. Chandra Rd., Calcutta 700009.

UNIVERSITIES

(See under each State).

Institutions deemed to be Universities: Birla Institute of Technology and Science, Pilani, Rajasthan; Central Institute of English & Foreign Languages, Hyderabad; Gandhigram Rural Institute, Gandhigram, Tamil Nadu; Gujarat Vidyapith, Ahmedabad; Gurukul Kangri Vishwavidyalaya, Hardwar, Uttar Pradesh; Indian Agricultural Research Institute, New Delhi; Indian Institute of Science, Bangalore; Indian School of Mines, Dhanbad, Bihar; Jamia Millia Islamia, New Delhi; Tata Institute of Social Sciences, Bombay; Dayalbagh Educational Institute, Dayalbagh, Agra.

Medical & Technological Institutes of National Importance: All India Institute of Medical Sciences, New Delhi; Postgraduate Institute of Medical Education & Research, Chandigarh; Indian Institute of Technology, New Delhi, Kanpur, Madras, Kharagpur, Bombay; Dakshina Bharat Hindi Prachar Sabha, Madras; Hindi Sahitya Sammelan, Allahabad; Indian Statistical Institute, Calcutta.

SCHOOLS OF SOCIAL WORK*

Institute of Social Sciences, University of Agra, Agra 282001; Dept. of Social Work, Gujarat Vidyapith, Ahmedabad 380001; Dept. of Social Work, Ahmednagar Coll., Ahmednagar 414001; College of Social Work, Nirmala Niketan, 38, New Marine Lines, Bombay 400020; Post-Graduate Institute of Social Work, Alwaye 683104; Dept. of Social Work, Bangalore Univ., Bangalore 560056; Post-Graduate Dept. of Social Work, D.N.R. Coll., Bhimavaram 534201; Bhopal School of Social Sciences, Bhopal 462001; College of Social Work, Bombay 400012; Tata Institute of Social Sciences, Sion-Trombay Rd., Deonar, Bombay 400088; Indian Institute of Social Welfare and Business Management, College Square West, Calcutta 700007; Dept. of Social Work, P.S.G. Arts Coll., Coimbatore 641004; Dept. of Social Work, Karnatak Univ., Dharwar 580003; Delhi School of Social Work, Delhi 110007; College of Social Work, Hyderabad 500001; School of Social Work, Indore 452001; Dept. of Social Work, Lucknow Univ., Lucknow 226001; Dept. of Social Work, Stella Mary's College, Cathedral Rd., Madras 600006; Madras School of Social Work, Casa Major Rd., Madras 600008; Loyola College, Dept. of Social Work, Madras 600034; Inst. of Social Work, Alagarkoil Rd., Madurai 625002; School of Social Work, Mangalore 575001; Matru Seva Sangh's Instt. of Social Work, North Ambazari Rd., Nagpur 440010; National Instt. of Social Work, Hanuman Nagar, Nagpur 440003; Tirpude Coll. of Social Work, Nagpur 440001; Dept. of Social Work, Jamia Milia, Jamia Nagar, New Delhi 110025; Karve Institute of Social Service, Hillside, Karvenagar, Pune 411029; Dept. of Social Work, Visva Bharati, Shantiniketan 731235; Dept. of Social Work, Solapur Coll., Solapur 413001; Loyola College of Social Sciences, Trivandrum 695001; Udaipur School of Social Work, Rajasthan Vidyapeeth, Udaipur 313001; School of Social Work, M.S. Univ. of Baroda, Fatehgunj, Vadodara 390002; Institute of Social Sciences, Kashi Vidyapith, Varanasi 221001; School of Social Work, Kashi Vidyapith, Varanasi 221001; Dept. of Social Work, Andhra Univ., Waltair 530004

OTHER EDUCATIONAL INSTITUTIONS

ANDHRA PRADESH

Acupuncture Training Centre of India, 3-6-20, Tirumala Apartments, Basheer Bagh, Hyderabad.

Administrative Science, Indian Institute of, 79, Jubilee Hills, Hyderabad 500034.

Administrative Staff College of India, Bella Vista, Hyderabad 500049 Provides trg. to senior executives from private & public sectors and Govt.: management consultancy and computer services: conducts research in management problems.

American Studies Research Centre, Hyderabad 500007. Maintains a comprehensive library on American civilisation for the benefit of Indian scholars and teachers.

Bharatiya Vidya Bhavan, 5-9-1105, Hyderguda, Hyderabad 500001.

Centre for Organization Development, 'Nageena', Rd. No. 3, Banjara Hills, Hyderabad 500034.

Conducts research on management and development of organisations, organises training programmes and offers expert advice for improving effectiveness of organisations and managers.

Community Devpt. & Panchayati Raj, State Instt. of, Rajendranagar, Hyderabad 500030.

Economics, Indian Instt. of, Himayatnagar, Hyderabad 500029

English & Foreign Languages, Central Instt. of, Hyderabad 500007. An autonomous Institution deemed to be a University set up by the Govt. of India, to improve the teaching of English and foreign languages and their literatures. It offers M.Litt. and Ph.D. courses in English, Arabic, French, German and Russian; postgraduate diploma course in teaching of English, English studies, Arabic, French, German and Russian; M.A. in French, German and Russian (by correspondence-cum-attendance); postgraduate certificate and diploma courses in the teaching of English (by correspondence); proficiency, diploma and advanced diploma courses in French, German, Russian and Modern Arabic; diploma in translation courses in French and German; and diploma in interpretation in German. It provides extension services in the field of English and foreign language teaching throughout the country. It has Regional Centres at Shillong and Lucknow.

Food Craft Instt., CTI Campus, Vidyanagar, Hyderabad 500768.

Foreign Studies Guidance & Service Bureau, 2-1-488, New Nallakunta, Hyderabad 500020

Geoscience, Indian Academy of, C/o Geology Deptt., Osmania Univ., Hyderabad 500007.

Higher Learning, Sri Sathya Sai Instt. of, Prasanthinilayam 515134. Anantapur Dist.

Industrial Safety & Productivity, Instt. of, A.C. Guards, Hyderabad 500004.

Instructors, Central Training Instt. of, I.T.I. Bldg., Mallepally, Hyderabad 500001.

Leadership Trg., McGrath Instt. of, Mathrusri Apts., Hyderguda, Hyderabad 500001.

Marketing Trg. Centre for Market Secretaries, 5-8-493, C.A. Lane, Hyderabad 500001.

Medical Sciences, Instt. of, Osmania Medical College, Sultan Nazar, Hyderabad 500001.

Plant Production Trg. Instt., Central, Rajendranagar, Hyderabad 500030.

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*There are now 35 schools of which 27 offer Master's degree courses, 10 Bachelor's degree courses and 11 Doctoral courses

Preventive Medicine, Instt. of, Narayanguda, Hyderabad 500029

Public Enterprises, Instt. of, New Bldg., Zainyar Jung Circle, Osmania Univ. Campus, Hyderabad 500007.

Sanskrit Vidyapeeth, Kendra, Tirupati 517501.

Science, Andhra Pradesh Academy of, Ex-Physiology Block, Osmania Univ., Hyderabad 500007.

Science Assocn., Hyderabad, 36. Asifnagar, Hyderabad 500012.

Science Socy., Hyderabad, 12-2-460, Malkapur, Asifnagar, Hyderabad 500028.

Small Industry Extension Trg. Instt., Yousufguda, Hyderabad 500045. Provides trg. in small industry devpt., management, behavioural sciences & extension; undertakes research & consultancy in related fields and provides documentation service to the small industry.

Tool Design, Central Instt. of (Govt. of India Socy.), Balanagar, Hyderabad 500037. Trg. of tool designers & tool makers, design & manufacture of tools, dies and moulds, etc. Also consultancy in use of Fluid Power for improving productivity in industries.

Village Devpt. Officers Trg. Centre, Rajendranagar, Hyderabad 500030.

ASSAM

Engineering and Technology, H.R.H. The Prince of Wales Instt. of, Jorhat 785001.

Historical Instt., Narayani Handiqui, Gauhati 781001.

Science Socy., Assam, Panbazar, Gauhati 781001.

BIHAR

Agricultural Sciences, Bihar Academy of, P.O. Sabour, 813210.

Cultural Studies, Indian Instt. for, P.O. Mandar Vidyapith, Bhagalpur Dist.

Foundry & Forge Technology, National Instt. of, P.O. Hatia, Ranchi 834003. Imparts industrially oriented specialised trg. on foundry, forge and related fields; offers Adv. Dip. Courses of 18 months duration in foundry technology and forge technology, short term refresher courses of 2 to 12 weeks duration and Post Graduate Programme through research for engrs. working in industries. Undertakes research and development works pertaining to foundry & forge technology and provides consultancy services in preparation of project reports, selection of equipment and machinery, testing of raw materials, castings, forgings and other components. Provides Documentation & Information Services in foundry, forge and allied fields.

Industrial Design, Instt. of, Patna 800001.

Mine Planning and Design Instt., Central, Darbhanga House, Ranchi 834001.

Nava Nalanda Mahavihara, Nalanda 803111. Postgraduate and research Instt. in Pali, Buddhist Studies, philosophy and ancient Indian and Asian Studies.

Personnel Management, Indian Instt. of, 36, Tisco Guest House Annexe, Jamshedpur 831001.

Public Health Instt., Patna 800004.

Rural Instt., Birouli 848113, Darbhanga Dist.

Vaccine Instt. and Pasteur Instt., Government, Namkum, Ranchi 834010.

Yogoda Sat-Sanga Vidyalaya, Club Rd., Ranchi 834001.

DELHI

Administrative Management, Institute of, 41, Masjid Road, Jangpura, New Delhi 110014. (1) The Institute has liaison with Administrative Management Society of U.S.A., Systems Procedures Association of U.S.A. and Institute of Administrative Management of U.K. (2) a Certificate Course for Office Supervision for graduate women is also conducted in collaboration with the Delhi University.

Adult Education & Community Services, Centre for Continuing, M.S. Univ. Office Compound, Vadodara 390002.

Adult Education Assocn., Indian, 17B, Indraprastha Marg, New Delhi 110001.

Architecture, School of Planning &, 4, Block-B, Indraprastha Estate, New Delhi 110001.

Audio-Visual Education, National Instt. of, Indraprastha Estate, New Delhi 110001.

Bharatiya Vidya Bhavan, K. Gandhi Mrg., New Delhi 110001.

Book Trust, India, National, A-5, Green Park, New Delhi 110016. An autonomous body set up by the Government of India. Activities include organisation of book exhibitions and fairs at home and abroad, including a World Book Fair every two years; conducting seminars and workshops on problems connected with the writing, translation, publication, distribution and promotion of books; and publication of good books at moderate prices under various series, important among which are *India—The Land and the People, National Biography, Nehru Bal Pustakalaya, Young India Library, Folklore of India, Popular Science, Aadan Pradan,* in Indian languages and in English. Over 2,564 titles have been published so far. Of these 2,112 are in the Indian languages. In order to ensure easy availability of its publications, the NBT has so far, set up its own Book Centres at New Delhi, Hyderabad, Jabalpur, Calcutta and Amritsar.

The Trust also implements two schemes known as the 'Scheme of Subsidised Publication of University Level Books in English and Hindi' and the 'Core Books on Medical Sciences' scheme. So far 542 books have been brought out on various subjects under the subsidy scheme.

Chinese Studies, Centre for, Delhi Univ., Delhi 110007.

Constitutional and Parliamentary Studies, Instt. of, 18, Vithalbhai Patel Marg, New Delhi 110001.

Crafts, Swami Sivananda Memorial Instt. of Fine Arts & (Vocational Trg. Centre), Rd. No. 31, East Avenue, Punjabi Bagh, New Delhi 110026.

Creative Intelligence, Maharishi Instt. of, C-282, Defence Colony, New Delhi 110024.

Criminology, Instt. of Forensic, E-12/3, Vasant Vihar, New Delhi 110057.

Developing Societies, Centre for the Study of, 29, Rajpur Rd., Delhi 110006.

Economic Growth, Instt. of, Univ. Enclave, Delhi 110007.

Education, National Instt. of, (NCERT—National Council of Educational Research & Trg.), Sri Aurobindo Marg, New Delhi 110016.

Education, Public Enterprises Centre for Continuing, C/o Guest House, C-6/5, Safdarjung Devpt. Area, New Delhi 110016.

Educational Foundation in India, United States, 12, Hailey Rd., New Delhi 110001.

Educational Planning and Administration, National Instt. of, 17-B, Sri Aurobindo Mrg., New Delhi 110016.

Foreign Languages, Instt. of, 1/3, NDS, Lajpat Nagar, New Delhi 110024.

Foreign Trade, Indian Instt. of, Ashok Bhavan, 93, Nehru Place, New Delhi 110019. Its principal activities include (1) trg. of personnel in foreign trade & intnl. business management, (2) functional research, (3) overseas mkt. studies, area surveys, (4) consultancy, and (5) collection & dissemination of information relating to India's foreign trade.

Gemmological Institute, Indian, Gem and Jewellery Export Promotion Council, 1002, Nirmal Tower (10th Floor), 26, Barakhamba Road, New Delhi 110001.

Health Administration & Education, National Instt. of, E-16, Greater Kailash, New Delhi 110048.

Health & Family Welfare, National Instt. of, New Mehrauli Road, Munirka, New Delhi 110067, an apex technical Institute for promoting Health & Family Welfare Planning Programmes in the Country through education, training, services, research and evaluation. Conducts a two years degree course in M.D. (CHA) affiliated with the University of Delhi and provides advanced in-service training to the personnel in the various disciplines working in the field of Health & Family Welfare. The Institute undertakes research on various aspects of the National Health & Family Welfare Planning Programme, such as social, medical, biological, demographic, organisational, operational and others

Home Economic, Instt. of, NDSE, Part I, New Delhi 110049.

Hotel Management, Catering and Nutrition, Instt. of, Pusa Institute, New Delhi 110012.

Indology, Instt. of, 24E, N. Subhash Mrg., Delhi 110006.

Information Technology, National Instt. of, 808, Siddharth, 96, Nehru Place, New Delhi 110015. Computer consultancy and trg. programme.

International Studies, Indian School of, 35, Ferozeshah Rd., New Delhi 110001.

Islamic Studies, Indian Instt. of, Panchkuin Mrg., New Delhi 110001.

Jamia Rural Instt., Jamia Millia, New Delhi 110025.

Kendriya Vidyalaya Sangathan, Nehru House, Bahadur Shah Zafar Mrg., New Delhi 110002.

Labour Instt., National, AB-6, Safdarjang Enclave, New Delhi 110029. Engaged in research and consultancy or labour problems. Conducts training for labour administrators, trade unionists and management personnel. Has collaborative programmes with ILO, FAO and UNDP.

Ladakh Bauddha Vihara, Bela Rd., Delhi 110006.

Management Devpt. Instt. (Sponsored by the Industrial Finance Corpn. of India), Gate No. 3, Jeevan Tara Bdg., 5, Sansad Marg, New Delhi 110001; *Campus*: Mehrauli Rd., Gurgaon 122001. Provides trg. in modern management techniques; undertakes research in industrial and business management, development banking and related subjects; accepts consultancy assignments for particularised attention to the specific problems of industrial and commercial undertakings in relation to their industrial development responsibilities and other economic objectives and functions. The Devpt. Banking Centre institute provides trg. and offers technical assistance to development financing/promotional institutions and banks, within and outside the country, in the areas of organisational structure and information system, staff recruitment, "In-house" training and manpower development. A 3-Year Part-time Course, "P.G. Dip. in Business Administration" has recently been started for working executives.

Marketing Management, Instt. of 62-F, Sujan Singh Park, New Delhi 110 003. Membership over 4,000 with Chapters at Ahmedabad, Bangalore, Bhopal, Bombay, Hyderabad, Jamshedpur, Jaipur, Kanpur, Kathmandu, Ludhiana, London, Madras, Nagpur, Patiala, Srinagar, Surat; besides a Research & Consultancy Divn. at Delhi; non-profit, public, national membership body of Mktg. Personnel & Organs. affiliated to the Intnl. Mktg. Fedn. & the U.K. Instt. of Mktg. Provides services to its members in the fields of research & consultancy, in-company trg., mgmt. audits, and conducts post-graduate courses and publications. More offices under franchise arrangements are being opened both in India and abroad under the expansion scheme.

Mass Communication, Indian Instt. of, D-13, South Extn., Part II, New Delhi 110049. Trg. programmes held in New Delhi and other centres aim at improving professional knowledge, technical skills and motivations of personnel working in newspapers, broadcasting & T.V. stns., information & publicity depts. Three courses of one academic year's duration. Post-graduate Diploma in Journalism for Developing countries, Diploma in News Agency Journalism and Post-graduate Diploma in Advertising and Public Relations. First two open to Indian and foreign students and the third to Indian students only. Conducts seminars and symposia. Undertakes studies on communication processes and problems. Evaluates campaign formulation and media planning and assessment of impact for I & B Ministry. Instt.'s specialised library and documentation unit helps researchers. Quarterly journal: *Communicator;* Half-yearly journal: *Sanchar Madhyam* (Hindi).

Medical Sciences, National Academy of, C-11/16, Ansari Nagar, New Delhi 110029.

Medicine, Central Council of Indian, 1-E/6, Swami Ramtirath Nagar, Jhandewalan Extn., New Delhi 110055.

Mountaineering Foundation, Indian, Delhi.

Orthopaedics, Central Instt. of, Safdarjung Hospital, New Delhi 110016.

Planning and Architecture, School of, Block B, Indraprastha Estate, New Delhi 110002.

Planning & Management, Indian Instt. of, B-4, Chirag Enclave, New Delhi 110048.

Population Council of India, Lodi Estate, New Delhi 110003.

Power Engineers Training Society, 207-212 A, Chiranjiv Tower, 43, Nehru Place, New Delhi 110019—An autonomous apex body under the Min. of Energy having the four Thermal Power Station Personnel Trg. Instts. at Neyveli, Durgapur, New Delhi & Nagpur for meeting the trg. needs of the power sector.

Press Instt. of India, Sapru House Annexe, Barakhamba Rd., New Delhi 110001. Set up in 1963 by Indian newspapers to help the press improve itself through seminars, workshops, courses, consultancies, study tours, etc. It publishes books relating to the mass media; *Viaura*, a bimonthly media journal; and *Data India* a weekly archive of developmental information. It also produces a feature news service on aspects of Indian development called *Depth News India*.

Public Administration, Indian Instt. of, Indraprastha Estate, Ring Rd., New Delhi 110001.

Public Co-operation and Child Devpt., National Instt. of, 92, Nehru Place, New Delhi 110024.

Public Finance and Policy, National Instt. of, 18/2 Satsang Vihar Marg, Special institutional Area, New Delhi 110067. Functions: continuous study of the fiscal system and measurement of the effects of budgetary policy on the economy; consultancy work for and trg. of officials of the Union, State and Local Govts.

Rail Transport, Instt. of, Rail Bhavan, New Delhi 110001. The Instt. functions in close collaboration with the Indian Railways to promote and foster the science and art of rail transport and management. Conducts a correspondence course leading to a diploma in "Rail Transport & Management"

Russian Studies, Instt. of, J. L. Nehru Univ. Campus, Sri Aurovindo Marg, New Delhi 110057.

School Certificate Examinations, Council for the Indian, C-52, Nizamuddin East, New Delhi 110013.

Science & Culture, Instt. of Advancement of, J-22, Haus Khas Enclave, New Delhi 110016.

Science Education, National Council for, Sri Aurovindo Ashram, Sri Aurovindo Marg, New Delhi 110057.

Scientific & Technical Literature, Indian Council for Promotion of, 89, Mohan Singh Plot, Kharak Singh Marg, New Delhi 110001.

Social Instt., Indian, Lodi Rd., New Delhi 110003. Purpose: Research; publications; labour welfare & management courses; trg. in co-opn.; promotion & organisation of socio-economic projects; family life education. Publication: *Social Action* (Quarterly).

Statistical Instt., Indian, J-19, Haus Khas, New Delhi 110016.

Technology, Centre for Devpt. of Instructional, 3, Birbal Marg, New Delhi 110014.

Technology, Indian Instt. of, Haus Khas, New Delhi 110016.

Tibetan Schools Socy., Curzon Road Barracks, New Delhi 110001

Tool Room & Training Centre, Delhi Admn., Wazirpur Indl. Ar Delhi 110052.

United States Educational Foundation in India, 12, Hailey Rd., New Delhi 110001.

Universities, Assocn. of Indian, Deendayal Upadhya Mrg., New Delhi 110002.

Vallabhbhai Patel Chest Instt., Univ. of Delhi, Patel Mrg., Delhi 110007.

Zoology Centre of Advanced Study, Univ. of Delhi, Delhi 110007.

GOA

Food Craft Instt., P.O. Betim 403101, Bardez, Goa.

Public Assistance (Provedoria), Instt. of, Panaji 403001.

Shipbuilding Technology, Instt. of, 'Mayfair', House No. MHN/77, Mundwell, Vaddem, Vasco da Gama 403802.

GUJARAT

Agricultural Instt., Government, Anand 388001.

Area Planning, Gujarat Instt. of, New Brahmkshatrya Socy., Pritamrai Marg, Ahmedabad 380006. Undertakes studies, projects and research in the field of rural and regional development and planning.

Co-operative Management, Instt. of, 9, Brahmin Mitra Mandal Socy., Ellis Bridge, Ahmedabad 380006.

Design, National Institute of, Paldi, Ahmedabad 380007. An autonomous national insttn. for education, research, consultancy and training in design set up by the Govt. of India, Ministry of Industry. NID at present offers 5½ years Professional Education Programme in Industrial Design (Product Design, Furniture Design, Ceramic Design, Textile Design, Visual Communication, Graphic Design, Exhibition Design) leading to diploma in design recognised by the Ministry of Education. Also started 3 years advance entry level programme in textile design and 2½ years in product design.

Diamond Institute, Indian, (Ministry of Commerce), Sumul Dairy Rd., Patel Nagar, Surat 395008. Is engaged principally in training artisans in diamond cutting & polishing.

Education Socy., Ahmedabad, Lal Bhavan, Bhadra, Ahmedabad 380001.

Engineering College—Birla Vishvakarma Mahavidyalaya, P.B. No. 20, Vallabh Vidyanagar 388120, Kaira Dist.

Environmental Planning & Technology, Centre for, Navarangpura, Ahmedabad 380009.

Export, Indian Instt. of, Sayajiganj, Vadodara 390005.

Food Craft Instt., Govt. Polytechnic Compound, Ahmedabad 380015.

Homoeopathic Instt., Gujarat Rajya, 702/9, Seth Mangaldas Rd., Ahmedabad 380006.

Homoeopathic System of Medicine, Gujarat Council of, Civil Hospital Bldg., Ahmedabad 380016.

Management, Indian Instt. of, Dr. Vikram Sarabhai Rd., Vastrapur, Ahmedabad 380015. *Director:* Dr. I. G. Patel.

Management Studies, All India Instt. of, 14, Lal Baug Society, Vadodara 390004.

Occupational Health, National Instt. of, Meghani Nagar, Ahmedabad 380016.

Oriental Instt., Smt. Hansa Mehta Library Bldg., Tilak Rd., Vadodara 390001.

Political Science, Harold Laski Instt. of, Mavlankar Haveli, Bhadra, Ahmedabad 380001. The Instt. encourages & facilitates the scientific study of political and allied questions & problems *Founder-Dir.:* Prof. P. G. Mavlankar.

Public Administration, Sardar Patel Instt. of, (Govt. of Gujarat), New Civil Hospital Annexe, Meghaninagar, Ahmedabad 380016.

Public Affairs, Indian Instt. of, Palejwala Bldg., Sayajiganj, Vadodara 390005.

School Textbooks, Gujarat State Board of, 29, Duffnala, Ahmedabad 380004.

Space Applications Centre, Jodhpur Tekra, Ahmedabad 380009.

HIMACHAL PRADESH

Advanced Study, Indian Instt. of, Rashtrapati Niwas, Shimla 171005.

Mountaineering Institute, Western Himalayan, Manali, Kulu.

JAMMU & KASHMIR

Skiing & Mountaineering, Indian Instt. of, Gulmarg 193403.

KARNATAKA

Action Aid, Post Box 2527, Bangalore 560025. An international child sponsorship/development agency which works through local, independent projects in providing educational, health and nutritional care to deprived and handicapped children and their communities, primarily in rural areas.

Adult Education Council, Karnataka State, Idigara Krishnamurthypuram, Mysore 570004.

Ayurved Vidyapeeth Socy., Karnataka, Khasbag, Belgaum 590001.

Bharatiya Vidya Bhavan, R. C. Rd., Bangalore 560001.

Biological Control, Commonwealth Instt. of, Hebbal, Bangalore 560009.

Bowring Instt., 19, St. Mark's Rd., Bangalore 560001. Postgraduate and research instt. for medicine.

Education Socy., Mysore, 15th Cross, Malleswaram, Bangalore 560003.

Education Socy. of Mysore, National, Basavangudi, Bangalore 560004.

English, Regional Instt. of, (South India), 6A, Cunningham Rd., Bangalore 560052. Estd. in 1963 by the Govts. of A.P., Karnataka, Kerala and Tamil Nadu in collaboration with the British High Commission, British Council Divn., with the primary aim of offering diversified trg. to teachers and key personnel in the field of English language teaching in these States.

Food Craft Instt., S. J. Polytechnic Bldgs., Seshadri Rd., Bangalore 560001. Jointly sponsored by the Govt. of India and the Govt. of Karnataka to train men and women for catering industry.

Foremen Trg. Instt. (Govt. of India/Min. of Labour), Tumkur Rd., P. B. 2232, Bangalore 560022.

Genetic Studies, Instt. for, 230, 12th Cross, Wilson Gardens, Bangalore 560027

Indian Languages, Central Instt. of, Manasa Gangotri, Mysore 570006.

Management, Indian Instt. of, 33, Langford Rd., Bangalore 560027.

Management Studies, Kousali Instt. of, Karnataka Univ., Dharwar 580003.

Mental Health & Neuro Sciences, National Instt. of, Post Bag No. 2979, Hosur Rd., Bangalore 560029. Conducts the following post-graduate courses: *(i)* M. D. Degree in Psychological Medicine; *(ii)* M. Ch. Degree in Neurosurgery; *(iii)* D. M. Degree in Neurology; *(iv)* Diploma in Psychological Medicine (DPM); *(v)* M. Phil. in Medical & Social Psychology; *(vi)* Ph.D. Degree in Clinical Psychology; *(vii)* M. Phil. in Psychiatric Social Work and *(vii)* M. Phil. in Neurophysiology and Ph.D in Mental Health and Neurosciences. The Institute is affiliated to the Bangalore University. Post-certificate courses in Psychiatric Nursing (DPN) and Diploma in Neuro-Nursing (DNN) are also conducted at the Institute. The Diploma is recognised by the Govt. of India and the Indian Nursing Council.

Milling Technology, National School of, Central Food Technological Research Instt., Mysore 570013.

Oncology, Kidwai Memorial Instt. of, Hosur Road, Bangalore 560029.

Poultry Management, Indian Instt. of, 6th Mile, Kanakpura Rd., Sarakki Gate, J.P. Nagar, Bangalore 560078.

Production Engineers, Indian Insttn. of, 16, Park Rd., Bangalore 560051.

Production Engineers, Insttn. of, C/o Wing Cdr. G. Venkateshwaran, 15, Eagle St., Langford Town, Bangalore 560026.

Public Affairs, Gokhale Instt. of, Narasimharaja Colony, Bangalore 560019.

Religion & Socy., Christian Instt. for the Study of, 17, Miller's Rd., Bangalore 560046.

Science, Indian Instt. of, Bangalore 560012. The Institute has the status of a University.

Serum Instt., Mysore, Hebbal, Bangalore 560024.

Social & Economic Change, Instt. for, Nagarbhavi, Bangalore 560040. An all India Instt. for inter-disciplinary research & trg. in social sciences.

Social Sciences, National Instt. of, 40, Wellington St., Richmond Town, Bangalore 560025.

Speech and Hearing, All India Instt. of, Mansa, Gangothri, Mysore 570006.

Statistical Instt., Indian, 112, 11th Cross, Malleswaram, Bangalore 560003.

Technical Education Socy., Mysore, 4th Block, Rajajinagar, Bangalore 560010.

Technical & Management Education, Socy. of, Bank of India Bldg., K. G. Rd., Bangalore 560009.

Technological Instt., Shri Krishnarajendra Silver Jubilee, Krishnarajendra Circle, Bangalore 560001.

Tuberculosis Instt. of India, National, Avalon, Bellary Rd., Bangalore 560003. 1. Studies Epidemiology, Sociology and Methodology of Tuberculosis Control; 2. Formulates & evolves TB Control Programme; 3. Supervision & Monitoring of National TB Control Programme; 4. Offers twice a year a 13 weeks' Trg. course to TB Control teams deputed by State Govts.; accepts undergraduate and post-graduate medical students (from several universities); holds twice a year Seminars for Sr. Public Health Administrators.

Vidyasala Assocn., Bharathi, Ambika Cloth Mkt. Bldg., D. K. Lane, Bangalore 560053.

World Culture, Indian Instt. of, 6, B. P. Wadia Rd., Basavangudi, Bangalore 560004.

KERALA

Acupuncture & Pain Control, Instt. of, Old Thevara Rd., Cochin 682016.

Fisheries Project, Integrated (Indo-Norwegian), (Govt. of India), Foreshore Rd., Cochin 682016. Experimental fishing, processing, marketing, engineering and training activities.

Fisheries, Nautical & Engineering Trg., Central Instt. of, Dewan's Rd., Ernakulam, Cochin 682016.

Fisheries Technology, Central Instt. of (CIFT), (under I.C.A.R.), Matsyapuri P.O., Cochin 682029. **Research Centres:** Bunder Road. Veraval 362265 (Gujarat); D. No. 54-2-9 Vesuveri St., Jagannaickpur, Kakinada 533002 (A.P.); P.O. Burla 768017, Sambalpur Dist., Orissa State; 162, Sassoon Dock, Colaba, Bombay 400005; 'Shanta', 2nd Flr., 8th June Rd., St. Inez, Panaji 403001, Goa; Beach Rd., West Hill, Calicut 673005, Kerala.

Food Craft Instt., Kalamassery, Alwaye 683104.

Languages, State Instt. of, Nalada, Trivandrum 695003, Kerala.

Law Academy, Kerala, Peroorkada, Trivandrum 695005.

Medical Centre, Sree Chitra Tirunal. Trivandrum 695011. Autonomous institute set up by the Govt. of Kerala for service, research and trg. in cardiology and neurology.

Natana Niketanam, Paliam Rd., Vadakke Angady, Trichur 680001. Teaches dancing and fine arts exclusively to girls.

Nautical Studies, Kerala Instt. of, Vizhinjam 695521.

Supervisory Devpt., Instt. of, Angamali 683572.

MADHYA PRADESH

Earth & Environmental Sciences, Academy of, School of Studies in Geology, Vikram Univ., Ujjain 456001.

Mountaineering Institute, Madhya Pradesh.

Technological Instt., Shri Govindram Seksaria, Opp. Nehru Park, Indore 452001.

MAHARASHTRA

Adult Education Assocn., Bombay, Cama Hall Bldg., 4th floor, Opp. Lion Gate, 136, S. Bhagat Singh Rd., Bombay 400023.

Alliance Francaise de Bombay, French Bank Bldg., 21, Homji St., Bombay 400001.

Ambulance, College of, Bombay City Ambulance Corps. 21. New Marine Lines, Behind Govt. of India Offices, Bombay 400020. Instructor's courses in advanced First Aid and home nursing.

Anglo-Scottish Education Socty., 6, Purshottam Thakurdas Mrg., Bombay 400001.

Apprentice School, Dockyard, Naval Dockyard, Fort, Bombay 400023. Dockyard Apprenticeships are offered to boys between 14-19 years under Apprenticeship Act, 1961 twice yearly in March and September. Competitive examinations and interviews are held in various recruiting centres in India. Period of apprenticeship three years.

Architecture, Academy of, Plot No. 278, Shankar Ghanekar Mrg., Prabhadevi, Bombay 400025.

Art, Sir Jamsetjee Jeejeebhoy School of, Dr. D. Naoroji Rd., Bombay 400001.

Asian Studies, Indian Instt. of, 23. Azad Nagar, J. Prakash Rd., Bombay 400058.

Bank Management, National Instt. of, 85, L. Jagmohandas Mrg., Bombay 400006. Serves as the apex research and trg. institution of the banking system.

Bankers, Indian Instt. of, The Arcade, World Trade Centre, 2nd Flr., Cuffe Parade, Colaba, Bombay 400005.

Bharatiya Vidya Bhavan, Kulapati K. M. Munshi Marg, Bombay 400007. Founded in 1938 by late Kulapati Dr. K. M. Munshi; is devoted to the promotion of education, art & culture, having branches all over India and London (U.K.); New York (U.S.A.).

Building Industries, Vazifdar College of, 17, Arthur Bunder Rd., Colaba, Bombay 400005.

Business Management, Institute of, (India) (IBM), IBM Regional Centre, B1, Shivdarshan, Nagala Park, Kolhapur 416003 (Graduate and Post Graduate level course in Management).

Catering Technology and Applied Nutrition, Instt. of, Veer Sawarkar Marg, Bombay 400028.

Cercle Litteraire Bibliotheque, Dinshaw Petit, 60, Forbes St., Bombay 400001. *Object:* To promote the study of French language, literature & civilization; Library & Reading Room.

Civil Defence Staff College, Cross Maidan, Dhobi Talao, Bombay 400023.

Commerce, Alexandra College of, Prospect Chambers Annexe, Dr. D. Naoroji Rd., Bombay 400001.

Commerce, Davar's College of, 51, M. Gandhi Rd., Bombay 400023.

Commerce, Laxmi College of, Sharadashram Vidyamandir, Dadar, Bombay 400028.

Communication Studies, Rajendra Prasad Instt. of, Kulapati K. M. Munshi Rd., Bombay 400007.

Communications, Xavier Instt. of, St. Xavier's College, Bombay 400001. Started in 1969, is an autonomous instt. under the management of the Society of Jesus; offers one year diploma course in Journalism, Advertising & Marketing, Public Relations & Cinema Production & short cert. courses in Public Relations, Photography & Audio-Visuals. Its other depts. cater to adult education, educational prog.s for high school students & creative assignments.

Community Health, Foundation for Research in, 48-A/R, G. Thadani Mrg., Bombay 400025.

Co-operative Management, Vaikunth Mehta National Instt. of, Reserve Bank Bldg., Ganeshkhind Rd., Pune 411016.

Creative Intelligence, Maharishi Instt. of, Navyug Nivas, Lamington Rd., Bombay 400007 and at 29, Satya Apartments, Naupada. Thane 400602.

Drugless Therapy, Indian Instt. of, Sunder Mahal, N. Point, Bombay 400021.

Education, Audiology & Research Centre, 67, L. Jagmohandas Mrg., Bombay 400006.

Education, Indian Instt. of Workers', Adarshnagar, Worli, Bombay 400025.

Education, Council for Economic, 125, Wodehouse Rd., Bombay 400005.

Education Committee, Bombay City Social, Samaj Shikshan Mandir, Adarsha Nagar, Worli, Bombay 400025.

Education Foundation of India, 12, K. Dubash Mrg., Bombay 400023.

Education Socy., Deccan, Fergusson Coll., Pune 411004.

Education Socy., Mahatma Phule, Bhoiwada, Parel, Bombay 400012.

Education Socy., People's, Anand Bhavan, Dr. D. Naoroji Rd., Bombay 400023. To promote higher edn. amongst the poorer people in general and the backward classes in particular. The Society runs 5 Colleges, 2 Diploma Institutes, 1 Night High School, 1 Buddhist Centre and 1 Research Centre in Bombay; 1 School and a Central School at Belapur, CBD Sector I, New Bombay; 4 Colleges, 2 High Schools, 2 Backward Classes Hostels and 1 Buddhist Centre at Aurangabad and 1 College at Mahad; 1 High School and 1 Backward Classes Hostel at Pandharpur, 1 Backward Classes Hostel at Dapoli (Ratnagiri Dist.) and one High School at Nanded. The Society gives annual grant-in-aid to the Backward Classes Hostels at Manmad, Nandurbar, Chalisgaon, Pune, Mahad, Nipani, Dholka, Patah, Vasamat and Kankavli.

Education Socy., Prince Shivaji, Sykes Extension, Kolhapur 416001.

Electrical Measuring Instruments, Instt. for Design of, Adjoining Eastern Express Highway, Chunabhatti, Sion, Bombay 400022. Set up by the Govt. of India under U.N.D.P. Assistance Programme for assistance in the development of Electrical Measuring, Process Control & Electronics instruments industry in the country.

Electronic Engineering, Computer Technology and Electronic Instrumentation, Watumal Institute of, Next to Venus Apartments, Worli, Bombay.

Energy Management, Instt. of, 18, Oak Shade, Deonar Baug, Bombay 400088.

Environmental Engineering Research Institute, National (CSIR), Nehru Marg, Nagpur 440020.

Family Welfare Trg. & Research Centre, 332, Sardar V. Patel Rd., Bombay 400004.

Fisheries Education, Central Instt. of, Kakori Camp, Jaiprakash Rd., Versova, Bombay 400061.

Food Craft Instt., Engg. Coll. Hostel Campus, Shivajinagar, Pune 411005.

Gemmological Instt. of India, C/o Gem & Jewellery Exporters Assn., 29, Gurukul Chambers, 187-89, Mumbadevi Rd., Bombay 400002. Provides facilities for study of gemmology & for testing, weighment and valuation of gem stones of all kinds, thereby introducing scientific methods in the gem and jewellery trade. It also conducts regular trg. courses in Gemmology and Diamond grading/assortment. The laboratory of the Institute has been recognized by the Govt. of India as a Research and Development Laboratory.

Geomagnetism, Indian Instt. of, Colaba Observatory, Bombay 400005.

German Studies, Indian Instt. of (Max Mueller Bhavan), 14/3B, Boat Club Rd., Pune 411001 and Prince of Wales Museum Annexe, Bombay 400001.

Grantha Sangrahalaya, Mumbai Marathi, 172, Naigaum Cross Rd., Bombay 400014.

Handicrafts Devpt. Assocn., Indian, Nirmal Mahal, Bomanji Petit Rd., Bombay 400036. Trg. in designing furniture and decorative items in stone, metal etc.

Handmade Paper Instt., K. B. Joshi Rd., Pune 411005.

Harijan Girijan Samaj Unnati Mandal, Vidyashram, Bhiwandi 421302, Thane Dist. Runs 60 ednl. insttns. in nearly 60 villages.

Industrial Engineering, National Instt. for Training in (NITIE), Vihar Lake Rd., Bombay 400087. NITIE offers a two-year Post-Graduate Course in Industrial Engineering equivalent to M. Tech., and short term trg. programmes for senior and middle level executives. It is also engaged in research and consultancy activities in Industrial Engg.

Industrial Security, Instt. for Trg. in, Farmee House, Shastri Marg, Vikhroli, Bombay 400083.

Information Technology, National Instt. of, 6th Flr., Mittal Court B, N. Point, Bombay 400021. Computer consultancy and trg. programme.

Journalism, Bombay College of, Churchgate, Bombay 400020.

Management, Ghatkopar Institute of, Ramniranjan Jhunjhunwala College (Third Floor), Ghatkopar (West), Bombay 400086.

Labour Studies, Maharashtra Instt. of, (Govt. of Maharashtra) D. Chamarbaugwala Rd., Parel, Bombay 400012. Recognised by the Bombay Univ. as a post-graduate Instt. of specialised studies leading to 2-year Univ. Master's Degree in Labour Studies (M.L.S.). The course is open to candidates with a Bachelor's Degree of Bombay Univ in any faculty or a degree of another Univ. recognized as equivalent thereto. The Instt. also guides students for Ph.D. and the admissions are open to the T.U. & I.R. & M.L.S. students.

Leather Technology, Instt. of, Bombay 400051.

Literature, Arts, Crafts & Culture, Peoples University of,—Shri Shivaji Loka Vidyapitha, Shivaji Nagar, Morshi Rd., Amravati 444001.

Local Self-Government, All-India Institute of, 11, Horniman Circle, Bombay 400023.

Management & Growth Economics (IMAGE), Instt. of, 232, General Assurance Bldg., 1st flr., Dr. D. N. Rd., Bombay 400001.

Management, M.M.C. School of, Court Chambers, New Marine Lines, Bombay 400020.

Management Studies, Jamnalal Bajaj Instt. of, 164, Backbay Reclamation, Bombay 400020.

Mass Communications, Siddharth College of, Anand Bhavan, D.N. Road, Fort, Bombay.

Materials Management, Indian Institute of, (Bombay Branch), 405, Vyapar Bhavan, 4th Floor, 49, P.D. Mello Road, Carnac Bunder, Bombay 400009.

Mechanical Engineers (India), Insttn. of, Post Bag No. 10146, Bombay 400001.

Medical Sciences, Mahatma Gandhi Instt. of, Sevagram, Wardha 442102.

Medical Technology, Academy of, 251, Tambai Nivas, Opposite Wadala Station, Near Dadar, Bombay 400031.

National Civil Defence College, 61/1, Civil Line, Nagpur 440001. (Conduct Certificate Course in Civil Defence.)

National Fire Service College, Near G.P.O., Nagpur 440001. (Conducts Post graduate diploma and 3-year degree course in fire fighting in collaboration with Nagpur Univ.)

Naturopathy—Indian Instt. of Drugless Therapy, Sundar Mahal, V. Nariman Rd., Bombay 400020. Correspondence Course in nature cure

Nritya Shree, 3, Dhake Colony, Jaiprakash Rd., Andheri (West), Bombay 400058. Trg. in Kathakali, Bharatnatyam and other classical and folk styles of dancing.

Occupational Therapy Trg. School and Centre, K.E.M. Hospital, Parel, Bombay 400012.

Oceanography, National Instt. of, Sea Shell Bldg., Versova, Bombay 400061.

Oriental Instt., K. R. Kama, 136, Apollo St., Bombay 400023.

Packaging, Indian Instt. of, E-2, Marol Indl. Estate, P.O. MIDC, Andheri East, Bombay 400093. *Regnl. Office:* Madras.

Philosophy, Pratap Centre of, Amalner 425401.

Physical Education, Government College of, Kandivli West, Bombay 400067.

Plastics and Rubber Institute, The Indian Section (Plastics), Bombay Centre, C/0 SLM — Maneklal Industries Ltd., Plastic Division, Saki Naka, Bombay 400072.

Politics and Economics, Gokhale Instt. of, Deccan Gymkhana, Pune 411004.

Population Sciences, International Instt. for, Govandi Station Rd., Deonar, Bombay 400088. Sponsored by the Govt. of India and the United Nations. It serves as the regnl. centre for teaching and research in Population Studies for the countries of Asia and the Pacific and has the status of a university.

Puppetry, Indian Instt. of, Datta Nivas, Shivaji Park Rd. No. 5, Bombay 400016.

Radio Electric Instt., Lamington Chambers, Dadasaheb Bhadkamkar Rd., Bombay 400004

Rayat Shikshan Sanstha, Satara 415001. Provides facilities of the edn. of the poor by providing means to earn while learning on the principle of self-help. The insttns. are conducted without distinction of religion, caste, creed or class. It conducts 23 colleges, 313 secondary schools (including 83 higher secondary schools), 7 primary trg. colleges, 74 hostels in the State. *Students on Roll:* 211,665, *Workers on Roll:* 10,057.

Research Institute, Parkhe, Khopoli 410203. Engaged in all-sided research and development activities in pulp and paper industry. Conducts programmes for M.Sc. and Ph.D. students in Cellulose/pulp and paper.

Road Transport, Central Instt. of (Trg. & Research), Pune-Nasik Rd., Pune 411026.

Road Transport, Indian Instt. of, BEST House, Bombay 400039.

Sahakari Sangh, Maharashtra Rajya (Bombay Central Co-op. Instt.), 11, Bank St., Bombay 400023. Imparts co-op. edn. & trg. to co-op. society members and to co-operative movement workers.

Sanskrit Vishva Parishad, (World Academy of Sanskrit), Bharatiya Vidya Bhavan, K. Munshi Marg, Bombay 400007.

Science, Instt. of, 15, Cama Rd., Bombay 400032.

Shikshana, Prasaraka Mandali, S.P. College Bldgs., Pune 411030. The main object of the Society is to give edn. at moderate cost, by starting schools, colleges, etc.

Social Sciences, Tata Instt. of, Sion-Trombay Rd., Deonar, Bombay 400088. Founded by Sir Dorabji Tata Trust in 1936, this pioneer institution, which is deemed to be a university, offers programmes of trg. leading to the Ph.D. degree in Social Work/Social Sciences: M.Phil. degree in social work/Social Sciences; M.A. degree in Social Work in the fields of Criminology & Correctional Adm., Family & Child Welfare, Medical & Psychiatric Social Work, Urban & Rural Community Devpt., Social Welfare Adm., M.A. degree in Personnel Management & Industrial Relations, Post-graduate Certificate Course in Research Methodology; conducts part-time certificate courses in Hospital Administration and Personnel Management for those employed in hospitals, industries and other organisations.

Social Service, Instt. of, 38, New Marine Lines, Bombay 400020.

Social Service, Karve Instt. of, Hillside, Karvenagar, Pune 411029.

Software Development and Computing Techniques, National Centre for, Tata Instt. of Fundamental Research, Homi Bhabha Rd., Bombay 400005. Providing assistance to computing activities in India to develop systems & applications software and generalised software packages in all areas of computing including graphics & computer-aided design; organising specialised advanced courses in computer science & technology; design of multi-processor networks and devpt. of digital data communication technology in general.

Spastics Society of India, Upper Colaba Rd., near Afghan Church, Colaba. Bombay 400005. It runs 1) Centre for Special Education—provides assessment, education and therapy for 130 spastics children and counselling for parents; 2) Post Graduate Diploma Course for Training of Teachers for Physically handicapped Children; 3) Post Graduate courses for Therapists in management of Cerebral Palsy; 4) Work Training Unit for adolescent spastics.

Statistical Instt., Indian, Old CGO Bldg., 101, M. Karve Rd., Bombay 400020.

Sugar Instt., Deccan, MSFC Bldg., 270, Senapati Bapat Rd., Pune 411016.

Technical Instt., Victoria Jubilee, Matunga, Bombay 400019.

Technology, Bombay Institute of, K.C. College, Dinshaw Wachha Road, Churchgate, Bombay 400020.

Technology, Indian Instt. of, I.I.T., Powai, Bombay 400076. It provides instruction and facilities for research in various branches of science, engineering, technology, humanities & social sciences. It enjoys the status of University, B. Tech. (Aero. Engg., Chem. Engg., Civil Engg., Elect. Engg., Engg. Physics, Mech. Engg., & Metallurgical Engg., Computer Science); M. Tech. (Aero Engg., Chem. Engg., Civil Engg., Elect. Engg. including Electronics, Mech. Engg. & Metallurgical Engg.); Inter-disciplinary programmes in Industrial Engg., and Operations Research, Materials Science, Environmental Science & Engineering, and Systems and Control Engg., Industrial Management Computer Science, Energy Systems Engg. and Corrosion Science and Engg.; Master of Design (Product Design). M.Sc. 5-yr. Integrated and 2-year Post B.Sc. (Chem. Maths., Phys. and Applied Geology); Postgraduate Diploma Course in Dock and Harbour Engg., Advanced Aerial Photo Interpretation; Applied Hydrology; Ph.D. Programmes in Humanities, Science & Engg., Technology.

Textbook Production & Curriculum Research, Maharashtra State Bureau of, 'Balbharati'. S. Bapat Mrg.. Pune 411004.

Trade Centre, Indian International, Jolly Maker Chambers. Nariman Point, Bombay 400021. *Branch:* 310, Jolly Bhavan No. 2, New Marine Lines, Bombay 400020. Specialised in Trade Promotion Trg., Market-Research, Intnl. Business Consultancy Services & Publications. Organises Post-Graduate Diploma Course in Export-Import Management (DEIM) & Diploma Course in Labour Laws, Management (DLLM). Also conducts short-term trg. courses in Intnl. Mktg., etc. *Branches:* New Delhi, Bangalore & Madras.

Water and Land Management Instt., Post Box 81, Aurangabad 431001.

Transport Management, Patel Instt. of, 21, Lakozy Mansion, Chowpatty Seaface, Bombay 400007.

Veterinary & Biological Products, Instt. of, Pune 411007.

Welding, Indian Instt. of, C/o Advani-Oerlikon Ltd., Ador House, 6, K. Dubash Mrg., Bombay 400023.

Welding, Indian Instt. of, C/o Indian Oxygen Ltd., L. B. Shastri Marg, Bombay 400086.

Workers Education, Indian Institute of, CPWD Bldg., Shastri Marg, Bombay 400070.

ORISSA

Food Craft Instt., A/105, Saheed Nagar, Bhubaneswar 751007.

Foremen Training, Indian Instt. of, Kansbahal 770024. Near Rourkela, Orissa. Promoted by the ICICI with the support of the Engg. Industry and the Govt. to provide trg. to supervisory personnel working in the industry through short-term residential courses.

Physics, Instt. of, A–105, Saheed Nagar, Bhubaneswar 751007.

PONDICHERRY

Post-graduate Medical Education & Research, Jawaharlal Instt. of, Pondicherry 605006.

PUNJAB

Engineering, National Instt. of, Hoshiarpur 146001.

Medical Education & Research, Post-graduate Instt. of, Chandigarh 160011.

Physical Education & Sports, Socy. for the National Instts. of, Moti Bagh, Patiala 147001.

Polytechnic, J.R. Govt., Hoshiarpur 146001.

Sports, Netaji Subhas National Instt. of, Motibagh, Patiala 147001.

Technical Teachers' Trg. Instt., Sector 26, Chandigarh 160019.

Textile Chemistry & Knitting Technology, Govt. Instt. of, Dressi Rd., Old Fort, Ludhiana 141001.

RAJASTHAN

Homoeopathy Assocn., Rajasthan, New Colony, Jaipur 302001.

Mountaineering Institute of Mount Abu, The, Mt. Abu, Raj.

Public Administration, H.C.M. State Instt. of, J. L. Nehru Mrg., Jaipur 302004.

Sciences, Rajasthan Academy of, Birla Coll., Pilani 333031.

Technology & Sciences, Birla Instt. of, Pilani 333031.

Vidyapith, Banasthali, P.O. Banasthali Vidyapith 304022. All India residential instn. imparting all-round edn. to girls from nursery to post-graduate and research stage with faculties of Arts, Science & Education.

Vidyapith, Saraswati, Tipta, Kota 324001.

SIKKIM

Mountaineering, Manali Inst. of, Gangtok.

TAMIL NADU

Adult Education, Regional Council for, 274, Linghi Chetty St., Madras 600001.

Advanced Trg. Instt. (A Govt. of India-ILO Project), Guindy, Madras 600032. Offers programmes of short duration for upgrading and updating the skills of workers.

Anatomy, Instt. of, Madras Medical College, Park Town, Madras 600003.

Ayyappa Arts Academy, 35/36, Arunachala Acharya St., Madras 600005.

Bala Sevika Trg. Instt., C/o Indian Council of Child Welfare, I, Prakasa Mudali St., T. Nagar, Madras 600017.

Catering Technology & Applied Nutrition, Instt. of Hotel Management, CIT Campus, T.T.T.I., Tharamani S.O., Madras 600113.

Ceramic Technology, Instt. of, Vriddhachalam 606001.

Co-operative & Vocational Education, State Instt. of, Post R.E.C., Tiruchirapalli 620015.

Correspondence Education, Institute of, Univ. of Madras, Madras 600005.

Development Studies, Madras Instt. of, 74, 2nd Main Rd., Gandhinagar, Madras 600020.

Educational Assocn. of Southern India, Muslim, 49, Peters Rd., Royapettah, Madras 600014.

Electronic Communication & Engg., Sealine Instt. for, 14, Poes Rd., 3rd St., Teynampet, Madras 600018.

Engineering Technology, Indian Instt. of, 70/4L, Arcot Rd., Madras 600024.

Engineering Trg. Centre, Hindustan, 40, North Parade Rd., Madras 600016.

Film Acting, Instt. of, Southern India Film Chamber of Commerce, 122, Mount Rd., Madras 600006.

Film Technology, Instt. of, Adyar, Madras 600020.

Financial Management and Research, Instt. for, 3, Kothari Rd., Nungambakkam, Madras 600034.

Fine Arts, International College of, 35/36, Arunachala Achari St., Triplicane, Madras 600005.

Fisheries Co-operatives, Central Instt. of, 81, S. N. Chetty St., Royapuram, Madras 600013.

Food Craft Instt., Thuvakudi, Tiruchirapalli 620015.

Footwear Trg. Centre, Central (Min. of Industry, Govt. of India), 65/1, Grand Southern Trunk Rd., SISI Campus, Madras 600032.

Forensic Science Laboratory, Tamil Nadu, Forensic House, Kamaraja Salai, Madras 600004.

Home Science College for Women, Sri Avinasilingam, Coimbatore 641011.

Human Relationship, Gandhi Lincoln Instt. of, Gandhigram 624302. (Madurai Dist.).

Industrial Engineering, Trg. Instt. for Productivity in, No. 1, Dr. A.C. Rd., Madras 600084.

Industrial & Fiscal Economics, Indian Socy. of, Univ. of Madras, Madras 600005.

Instructors, Central Trg. Instt. of, Industrial Estate, Guindy, Madras 600032.

Kalakshetra—College of Fine Arts, Thiruvanmiyur, Madras 600041.

Labour Instt., Regional, Adyar, Madras 600020.

Labour Studies, Tamilnadu Instt. of. Madras 600005.

Leather Technology, Instt. of, Adyar, Madras 600020.

Management, Anna Instt. of, Post Box 3113, Madras 600028.

Management, Instt. of, Shanmugha Mandram, Race Course, Coimbatore 641018.

Management Professionals Association, The, 25, South Boag Rd., T. Nagar, Madras 600017. Conducts MBA/Ph.D. programmes by correspondence from recognised foreign universities.

Marine Biology Centre for Advance Studies, Annamalai Univ. Parangipettai 608502.

Mathematical Sciences, Instt. of, Central Polytechnic Bldgs., Madras 600020.

Music Academy, Madras, 115-E, Mowbray's Rd., Madras 600014.

P.S.G. & Sons Charity Industrial Instt., Peelamedu Post, Coimbatore 641004.

Pasteur Instt. of Southern India, Coonoor 643103.

Plastics, Engineering and Tools (Min. of Chemicals & Fertilisers), Central Instt. of, Guindy, Madras 600032.

Printing & Graphic Arts, Indian Academy of, 'Sudha Sindhu', 8, Second St., Subramania Nagar, Madras 600024.

Productivity & Indl. Engg., Training Instt. for (NPC), 12, Manikeswari Rd., Kilpauk, Madras 600010.

Prototype Devpt. & Trg. Centre (NSIC), Sector B-24, Guindy Indl. Estate, P.O. Ekkāduthangal, Madras 600097.

Ramakrishna Mission Vidyalaya, Sri, Sri Ramakrishna Vidyalaya P.O., 641020. Coimbatore Dist.

Regional Testing Laboratory, Ind. Estate, K. Pudur, Madurai 625007.

Rural Health and Family Planning, Gandhigram Instt. of, P.O. Ambathurai R.S. 624309, Madurai Dist.

Rural Instt., Gandhigram, Gandhigram 624302. (Madurai Dist).

Sanskrit Academy, Sanskrit College Bldgs., Mylapore, Madras 600004.

Science Trust, Divine, 26, K.K. Rd., Ambattur, Madras 600053. An educational trust for the advancement of science of Visishtadvaita.

Screen Printing, Indian Instt. of, 85, Chamier's Rd., Madras 600018.

Seva Sadan, Madras, 5, Harrington Rd., Chetput, Madras 600031. Runs High School, office assistant trg. course, Industrial School, Working Women hostel etc., for the destitute and deserted women.

Tamil Studies, International Instt. of, C.I.T. Campus, Adyar, Polytechnic, Madras 600020.

Technical Teachers' Trg. Instt. (S. Region), (Govt. of India, Min. of Education), Adyar, Madras 600020.

Technology, Coimbatore Instt. of, P.O. Aerodrome, Coimbatore 641014.

Technology, Indian Instt. of, Madras 600036.

Technology, Madras Instt. of, P.O. Chromepet, Madras 600044.

Technology, Seshasayee Instt. of, Ariyamangalam, Tiruchirapalli 620010.

Tuberculosis Instt., Government, Spur Tank Rd., Chetput, Madras 600031.

Veterinary Assocn., Indian, 10, Avenue Rd., Madras 600034.

Vivekananda Kendra, Vivekanandapuram, Kanyakumari 629702. Teaches Sanskrit and Yoga besides managing the Vivekananda Rock Memorial.

Vocational Education, State Instt. of Co-op., Post REC, Tiruchirapalli 620015.

Welding, Indian Instt. of, 21, Vaidyaraman St., T. Nagar, Madras 600017.

UTTAR PRADESH

Creative Intelligence, Maharishi Instt. of, Shankaracharya Nagar, Rishikesh 249201.

Earthquake Engineering, School of Research & Trg. in, Univ. of Roorkee, Roorkee 247667.

Fisheries Operatives, Regnl. Trg. Centre for Inland, Raja Niketan, P.O. Bldgs., Civil Lines, Delhi Gate, Agra 282002.

Food Craft Instt., 18-B, Ashok Marg, Lucknow 226001.

Forest Academy, Yoga Vedanta, Divine Life Society, P.O. Sivanandanagar 249192, Tehri Garhwal Dist.

Gandhian Studies, Instt. of, Rajghat, Varanasi 221001.

Kashi Vidyapith, Varanasi 221001.

Kashiraj Trust, All India, Fort Ramnagar, Varanasi 221001. *Objects*: Advancement and propagation of the Sanskritic learning & Indology.

Mountaineering, Nehru Institute of, Uttarkashi, U.P.

Ophthalmology, Instt. of, Gandhi Eye Hospital, Aligarh 202001.

Oriental Philosophy, Instt. of, Vrindaban 281121, Mathura Dist.

Paper Technology, Instt. of, Saharanpur 247001.

Photo-Interpretation Instt., Indian (National Remote Sensing Agency), Kalidas Rd., Dehra Dun 248001.

Population Centre, Ram Sagar Misra Nagar, Faizabad Rd., Lucknow 226001.

Sanskrit Vidyapeetha, Ganganatha Jha Kendriya, Motilal Nehru Park, Allahabad 211001.

Sanskrit Vishwa Vidyalaya, Varanaseya, Varanasi 221001. Teaching-cum-affiliating. Has the richest collection of Sanskrit Manuscripts.

Sciences, India, National Academy of, 5, Lajpat Rai Rd., Allahabad 211002.

Soil Science, Sheila Dhar Instt. of, Univ. of Allahabad, 2-D, Beli Rd., Allahabad 211002.

Technological Instt., H.B., Company Gardens, Kanpur 208001.

Technology, Indian Instt. of, Kanpur 208016.

Textile Instt., Govt. Central, Parbati Bagla Rd., Kanpur 208001.

Tool Room Trg., Instt. of, A/1, Amausi Indl. Area, Lucknow Kanpur Rd., Lucknow 226012.

Vijnana Parishad, Thornhill Rd., Muir College Bldgs., Allahabad 211002.

Viswavidyalaya, Gurukul Kangri, P.O. Gurukul, Kangri 249404 (Saharanpur Dist.).

Work Study, Defence Instt. of, Landour Cantt., Mussoorie 248179.

WEST BENGAL

Adult Education Assocn., West Bengal, Student Hall, 1/2A, College Square, Calcutta 700012.

Animal Husbandry & Dairying, State Instt. for, Haringhata Farm, P.O. Mohanpur 741246, Nadia Dist.

Asian & African Relations, Instt. of, 57/B, Beltola Rd., Calcutta 700025.

Bharatiya Vidya Bhavan, 1–1, Meredith St., Calcutta 700013.

Bratachari Socy., Bengal, 191/1, B.B. Ganguly St., Calcutta 700012. Trg. in physical education, work education and social service under the system of Bratachar, education founded by late Gurusaday Dutt.

Catering Technology and Applied Nutrition, Instt. of, 21, Convent Rd., Calcutta 700014.

Child Health, Instt. of, 95, Dilkhusa St., Calcutta 700017.

Computer Education, Instt. of, Dabriwala House, 10, Middleton Row, Calcutta 700071.

Detective Trg. & Forensic Instts., Central, 20, Gorachand Rd., Calcutta 700014.

Economic & Entrepreneurship Devpt. Foundation, 27A, Camac St., Calcutta 700016.

Education Socy., 6/A, Sahitya Parishad St., Calcutta 700006.

Electronic Technology, Indian Instt. of, 8/8, R.N.K. St., Calcutta 700005.

Homoeopathy, National Instt. of, 118, Amherst St., Calcutta 700009.

Hotel Management, Catering Technology & Applied Nutrition, Instt. of, Old Exhibition Ground, Taratola Rd., Calcutta 700088.

Jute Technology, Instt. of, 35, Ballygunge Circular Rd., Calcutta 700019.

Libraries & Information Centres, Indian Assocn. (IASLIC), P. 219, CIT Scheme 6M, Kankurgachi, Calcutta 700054.

Management, Indian Instt. of, "Emerald Tower", Diamond Harbour Rd., P.O. Joka, Calcutta 700027.

Mountaineering Instt., The Himalayan, Jawahar Parbat, Darjeeling 734101.

Neurology, Bangur Instt. of, 52/1A, S.N. Pandit St., Calcutta 700025.

Nuclear Physics, Saha Instt. of, 92, Acharya Prafulla Chandra Rd., Calcutta 700009.

Pasteur Instt., 2, Convent Lane, Calcutta 700014.

Personnel Management, National Instt. of, Apeejay House, Block B, 5th Flr., 15, Park St., Calcutta 700016.

Port Management, Indian Instt. of, 40, Circular Garden Reach Rd., Calcutta 700043.

Sangit Samaj, Bharatiya, 39-B, Mahim Halder St., Calcutta 700026. College of Indian music.

Sangit Samaj, Surer Maya, 171/26, Roy Bahadur Rd., Calcutta 700034.

Social Welfare and Business Management, Indian Instt. of, College Sqr. West, Calcutta 700073.

Statistical Instt., Indian, 203, Barrackpore Trunk Rd., Calcutta 700035.

Technology, Indian Instt. of, Kharagpur 721301.

Theoretical Physics, Instt. of, 4/1, Mohan Bagan Lane, Calcutta 700004.

Women's Education Socy., Bani Mandir, 2, Dr. A.R. Chowdhury Lane, Calcutta 700019.

VOCATIONAL GUIDANCE BUREAUX

(State-wise list)

Assam: State Bureau of Educational & Vocational Guidance, Office of the D.P.I., Assam, Shillong.

Gujarat: Vocational Guidance Officer, Instt. of Vocational Guidance, Narayan Park, Naurangpura, Ahmedabad 380009.

Himachal Pradesh: Counsellor-in-Charge, State Bureau of Educational & Vocational Guidance, Educational Directorate, Labour Hostel, Simla 171004.

Karnataka: Director, Bureau of Educational & Vocational Guidance, No. 27, 'V' Block, Kumara Park, West Extension, Bangalore 560020.

Madhya Pradesh: Principal, College of Educational Psychology and Guidance, Jabalpur 482001.

Maharashtra: Principal, Instt. of Vocational Guidance, 3, Mahapalika Marg, Bombay 400001.

Manipur: Guidance Officer, Bureau of Educational & Vocational Guidance, Imphal 795001.

Meghalaya: State Bureau of Educational and Vocational Guidance, Office of the D.P.I., Shillong 793001.

Orissa: Director, State Bureau of Educational & Vocational Guidance, Radhanath Training College, Cuttack 753002.

Tripura: Guidance Officer, Bureau of Educational & Vocational Guidance, Govt. of Tripura, Military Rd., Agartala 799001.

Uttar Pradesh: Nirdeshak, Manovigyan Shala, Allahabad 211001.

West Bengal: Incharge, Bureau of Educational & Psychological Research, David Hare Training College, 25-3, Ballygunj Circular Road, Calcutta 700019.

Chandigarh: Bureau of Educational & Vocational Guidance, House No. 70-C, Sector 19-A, Chandigarh 160019.

Delhi: Educational and Vocational Guidance Unit, National Council of Educational Research and Training (NCERT), Sri Aurobindo Marg, New Delhi 110016 (Dip. in Educational & Vocational Guidance).

Goa: Incharge, Directorate of Education, Statistics and Planning Section, Panaji.

PRIVATE GUIDANCE AGENCIES

Gujarat: Student Psychological Centre, B. M. Instt., Ashram Road, Near Nehru Bridge, Ahmedabad 380009; Psychological, Educational & Remedial Service, Near Akhada Pritam Nagar, Ahmedabad 380017.

Karnataka: Y.M.C.A. Guidance Unit, Cenotaph Road, Bangalore 560002.

Maharashtra: Vocational Guidance Bureau, St. Xavier's Instt. of Education, 15, Marine Lines, Bombay 400001; Student Counselling Centre, Mahapalika Marg, Bombay 400001; Maharashtra Vyavasayic Margadarshan Kendra, Bhavani Shankar Road; Bombay 400028; Maharashtra Vyavasay Margadarshan Kendra, Sanmitra Mandal Vidya Mandir, Gogewadi, Goregaon East, Bombay 400063; Officer Incharge, Parsi Panchayat Vocational Guidance Bureau, C/o BJPC Instt., Opp. Charni Rd. Stn., Bombay 400004; Director, Education & Vocational Guidance Bureau, Jan Seva Sangh, 7th Nauroji Hill Road, Dongri, Bombay 400009; Vocational Guidance Centre, C/o Ramakrishna Vidyalaya, Amraoti 444601; Director, Psychological Tests and Guidance Centre, Kamptee Road, Nagpur 440001.

Punjab: Vocational and Educational Guidance, Church Compound, Jullunder City.

Uttar Pradesh: Bureau of Educational Research, E Wing, Xavier College, Allahabad 3.

West Bengal: Bureau of Vocational Guidance & Counselling, Park Street, Calcutta 700017.

Delhi: Counselling and Guidance Bureau, Directorate of Social Welfare, 1/7 Roop Nagar, Delhi 110006; Family Life Institute, Institute of Social & Moral Hygiene, 4, Rouse Avenue, New Delhi.

LIBRARIES, MUSEUMS AND ARCHIVES

Libraries

THE birth of the National Library at Calcutta and the two depository libraries of Connemara at Madras and Central Library at Bombay and the National Archives at New Delhi can be attributed to the early scholarly Englishmen seeking intellectual pursuits when not involved in official work. In course of time the first Calcutta Public Library became the Imperial Library. It was Lord Curzon's decision taken in 1903 and as the years rolled by rose to be India's National Library.

The Royal Asiatic Society of Bengal established in 1784 was under the patronage of Warren Hastings and with the active support of its first president, Sir William Jones. This historic institution celebrated its bi-centenary in January 1984 and to meet its financial crisis the Government of India has decided to give it an annual allowance and declared it a national institution. The Bombay branch followed shortly and it is the proud owner, among other things, of one of the five rare, authentic, most-prized 14th century manuscript of Dante's immortal "Divina Comedia" (1265-1321 A.D.).

Other noteworthy academic libraries were the Presidency College Library established in 1817, the Sanskrit College Library founded in 1824, the Scottish Church College founded as the General Assembly's Institution with library in 1830 and the Calcutta University Library founded in 1857, etc. all in Calcutta.

Before independence the first Government act was the Press and Registration of Books Act of 1867. A model Library Act was also drafted by S. R. Ranganathan, father of the library movement in India, in 1930.

The Constitution of independent India contained a provision for a public library service which was made a state subject. However, the necessity for a state-wide grid of integrated public library system and a national library movement was published in the recommendations of the Government of India's Advisory Committee for Librarians in 1959. Later, a Working Group to consider library development programme during the Fourth Plan, mooted by Prof. V. K. R. V. Rao, met in 1964. The report submitted by this group formed the basis for the national policy on libraries in India.

Various states passed the Public Libraries Act namely Madras (1948), Andhra Pradesh (1956), Maharashtra (1968) and Mysore (1969). The Govt. of India passed the Delivery of Books (Public Libraries) Act in 1954 which laid the foundation for national book depositories. The National Library of India Act was passed only in 1976.

Archives

Archives as the repositories of official records of national importance are storehouses of learning. The National Archives of India, initially known as the Imperial Record Department was established in 1891 in Calcutta. Its growth in the earlier stages was chaotic. In 1919 the Indian Historical Records Commission was set up to suggest steps for a systematic preservation of records. In 1927 the records were transferred to the present site and it was renamed the National Archives of India in 1947. Today it is one of the leading archives of the world with its records dating back to the East India Company in 1630. The main series, however, begins only from 1748.

The Government records pertaining only to Maharashtra are housed in Bombay, Pune, Kolhapur, Nagpur and Aurangabad. The Bombay record office is now developed into the Central Archival Agency of the Government of Maharashtra.

Bombay being the heart of the film industry, the National Film Archives of India (NFAI) has assumed great importance. The Archives, started in 1963 at Pune, has now acquired film and ancillary materials numbering 28,270 stills, 1,519 disc records, 936 micro films and 4,080 wall posters used during the last six decades besides a large number of film-making equipment. Two regional offices in Calcutta and Bangalore have been set up and more regional offices in New Delhi, Madras and Trivandrum will start functioning by the end of the Sixth Plan.

The Karnataka State archives started in 1973 also has in its possession records of old Mysore State dating back to 1866. A regional office will be shortly opened in Mysore while plans have been mooted for other regional offices in Dharwar and Gulbarga.

Among the British Presidencies in India, Madras was the first province to establish the record office at Fort St. George in 1805. The general record office of Fort William at Calcutta was established in 1813 while the Bombay archives was set up in 1821. The Historical Records (of National Importance) Act, to provide for the declaration of certain historical records to be of national importance and to provide for their preservation and due management, was passed in 1957.

Museums

India, it has been said, is itself a large complex museum, in view of the unity amidst diversity of its ancient heritage and valued treasures. For "a well-organised museum can influence people of all classes and of all ages."

The museums aim at three important functions: acquisition and preservation of objects of historical and cultural interests, the advancement of knowledge through the study of these objects and diffusion of knowledge for the uplift of common man's life.

Three key factors have contributed to the development of the museum movement.

First and foremost were the efforts of learned men and societies, the jubilee celebrations of Queen Victoria and Lord Curzon's encouragement. The origin of the movement goes back to the days when the Royal Asiatic Society of Bengal was founded in 1784 with Sir William Jones as its first president. With curios accumulating over the years the problem of space became acute. A museum was suggested by the Danish botanist, Dr. Nathaniel Wallich, in 1814, who offered not only his services as curator but readily donated duplicates from his own collection. This proposal was accepted and a museum was set up. By the Indian Museum Act, 1866, a Trustee Board was created and all collections of the Asiatic Society were handed over to the Board. This was the beginning of the Indian Museum, which initially designed to be the national museum of India, was thrown open to the public in 1878. At present it is divided into five sections—zoological, ethnological, geological, archaeological and industrial and received statutory recognition in 1910. It is the largest and most important museum in the subcontinent and Asia.

The Victoria and Albert Museum in Bombay, renamed the Bhau Daji Lad Museum, was established in 1857 by the earnest efforts of Dr. Buist and later handed over to municipal control in 1885.

Lord Curzon gave a great impetus to the efforts of setting up of a museum and found an energetic and able supporter in the then Director-General of Archaeological Survey, Sir John Marshall. From 1902, within a span of ten years, several smaller museums were established at Ajmer, Baripada, Chamba, Jodhpur, Khajuraho, Gwalior, Bijapur and Dacca. Sir John was also responsible for the archaeological museums at Sarnath and the Central Asian Antiquities Museum at New Delhi.

The Prince of Wales Museum Act was passed in 1909 to commemorate the visit of prince (George V) and Princess of Wales to Bombay in 1905. The building was constructed in 1914 but was used as a military hospital during World War I. It was handed over to the Trustees in 1921. The Bombay Natural History Society is another important landmark which completed its centenary in 1983 and which the Prime Minister Mrs. Indira Gandhi inaugurated. A commemorative stamp was also released on the occasion.

There are now more than 200 museums in India among which perhaps the youngest is the National Museum in Delhi. Opened in 1960, it grew out of loans to the great exhibition of Indian art held in London in 1947-48 and is the most modern of all museums.

Recently a science museum has been mooted for Bhopal having galleries with scientific puzzles and games, a planetarium and also a library.

In view of Bombay's maritime importance as a leading seaport, the Gateway to India, a Maritime museum has been recently established in Bombay.

The Raja Kelkar Museum in Pune, the Salar Jung Museum in Hyderabad, the Heras Institute of Indian History and Cultural Museum in Bombay are sparks of individual efforts.

Given below is a selected list of important libraries, museum libraries and archives.

LIBRARIES

For libraries attached to Universities please see the name of the University under the State.

The four depository libraries in India are:

1. Central Library, The, Town Hall, Bombay 400001.
2. Connemara State Central Public Library, Madras 600008.
3. Delhi Public Library, S.P. Mukerji Marg, Delhi 110006.
4. National Library, Belvedere, Alipore, Calcutta 700027.

Andaman and Nicobar Islands:

Port Blair District Library, Port Blair.

Andhra Pradesh:

Public and subscription libraries:

Adilabad District Central Library, Adilabad Dist. 504001.
Central Library (Hyderabad City Grandhalaya Samstha), Near Clock Tower, Sebastian Road, Secunderabad 500003.
City Central Library, Hyderabad City Grandhalaya Samstha, 3-6-192, Himmatnagar, Hyderabad 530029.

Guntur District Central Library, Guntur 522001.
Hanamkonda District Central Library, Hanamkonda, Warrangal 506002.
Government Regional Library, Dwarakanagar, Visakhapatnam 530004.
Regional Library, Nizamabad 503001.
Sri Ram Chandra Grandhalaya, West Godavari Dist., P.O. Poduru 534327.
State Central Library, Afzalganj, Hyderabad 500012.
Theosophical Society, The Library, Officers' Line, Chittoor 517001.

Special libraries:

Abul Kalam Azad Oriental Research Institute Reading Room and Library, Public Gardens, Hyderabad 500004.
Braille Section, Central State Library, Government of Andhra Pradesh, Hyderabad 500004.
Children's Library, Tankbund (Hyderabad City Grandhalaya Samstha), Takbund, Hyderabad-500001.
Government School for the Blind Library, Hyderabad 500004.
Khwateen-e-Deccan Library and Research Institute, Behind Police Officers' Mess, 10-5-3/1, Masab Tank, Hyderabad 500028.

Assam and Meghalaya:

Public and subscription libraries:

Dibrugarh District Library, Dibrugarh 768001.
Gauhati District Library, Gauhati 781001.
Government of Assam State Central Library, Shillong 793001.
Nowgong District Library, Nowgong 782001.
Tezpur District Library, Tezpur, Darrang 784001.

Bihar:

Public and subscription libraries:

British Council Library, Patna Branch, Bank Road, Patna 800001.
Khuda Baksh Oriental Public Library, Patna 800004.
Maheswar Public Library, P. O. Mahendra, Patna 800006.
Shrimati Radhika Sinha Instt. and Sachchidananda Sinha Library (Bihar State Central Library), G.P.O., Patna 800001.

Chandigarh:

Public and subscription libraries:

Gandhi Smarak Nidhi Library, Sector 16, Chandigarh 160016.
T.S. Central State Library, Sector 17, Chandigarh 160017.

Delhi:

Public and subscription libraries:

British Council Library, Delhi Branch, Aifacs Building, Rafi Marg, New Delhi 110001.
Delhi Public Library, S.P. Mukherji Marg, Delhi 110006.
Hardinge Municipal Public Library, Gandhi Maidan, Fountain, Delhi 110006.
Indian Council of World Affairs Library, Sapru House, Barakhamba Road, New Delhi 110001.
Information Centre Government of India Library, H-Block, Connaught Circus, New Delhi 110001.
Max Mueller Bhavan Library, 3, Kasturba Gandhi Marg, New Delhi 110001.
Purushottamdas Tandon Library, Lajpat Bhavan, Lajpat Nagar, New Delhi 110024.
Sahitya Akademi Library, Ravindra Bhavan, 35, Ferozshah Road, New Delhi 110001.

Special libraries:

Blind Social Welfare Society Library, Panchkuin Marg, New Delhi 110011.
Inter-Library Resources Centre (IRLC), 35, Ferozshah Rd., New Delhi 110001.
Jawaharlal Institute of Physical Medicine and Rehabilitation Library (Managed by the Council for the Aid of Crippled and Handicapped, New Delhi), 4, Rouse Avenue Lane, New Delhi 110001.

Gujarat:

Public and subscription libraries:

Borton Library, Diwanpara Rd., Bhavnagar 364001.
Central Library, Near Mandvi, Baroda 394220.
Junagadh Library, Azad Chowk, Junagadh-362001.
Hirojirao Narayana Mane Sarvajanik Pustakalaya, Vaghodia, Baroda Dist.
Mahila Sarvajanik Pustakalaya, Baroda Dist., Sinor 391115.
Parikh Chandulal Keshavlal Sarvajanik Pustakalaya, Kaira Dist., Petlad 388450.
Seth Maneklal Jethabhai Pustakalaya, Ellis Bridge, Ahmedabad 380006.

Special libraries:

Blind Men's Association's Library, Near A.T.I.R.A., Opp. Indian Institute of Management, Gujarat.
Jyoti Sangh Mentally Retarded Adolescent Girls' library, Tilak Rd., Ahmedabad 380001.

Haryana:

Public and subscription libraries:

Adarsh Library, Bhim Nagar, Gurgaon 122001.
Gandhi Peace Foundation, Gandhi Library, Punjabi Mohalla, Ambala Cantt.
Hissar Dist. Library, Hissar 125001.
Kaithal Municipal Library, Kaithal 132027.
Narnaul Dist. Library, Narnaul 123001.

Himachal Pradesh:

Public and subscription libraries:

Chamba Church Centenary Memorial Library and Reading Room, Chamba 176310.
Chamba Dist. Library, Chamba 176310.
Dharamsala Govt. Dist. Library, Dharamsala 176215.
Kinnaur Dist. Library, Kalpa 172108.
Lala Lajpat Raj Library, Mahatma Hansraj Bhawan, Joginder Nagar 176120.
Motilal Nehru Central State Library, Solan 173212.
Nahan Govt. Dist. Library, Nahan 173001.

Special Library:

Library of Tibetan Works and Archives, Dharamsala 176215.

Karnataka:

Public and subscription libraries:

B. Conmie Library, Bangalore Branch, 29, St. Marks Rd., Bangalore 560001.
Bellary District Central Library, Bellary 583101.
City Central Library, 80, K.H. Rd., Bangalore 560027.
City Central Library, K.S.R. Light House, Hill Rd., Mangalore 575003.
Coorg Dist. Central Library, Coorg, Mercara 571201.
Hassan Dist. Central Library, Hassan 573201.
Indian Institute of World Culture, The Library, Sri B.P. Wadia Rd., Basavangudi, Bangalore 560004.
Karwar General Library, Karwar 581301.
Nellore Dist. Central Library, Nellore.
Rotary Children's Library, Jhansi Lakshmibai Rd., Mysore 570001.
Sri Krishnarajendra Literary and Sports Association (Regd.) Library, Central Leprosarium, Magady Rd., Bangalore 560012

Kerala:

Public and subscription libraries:

British Council Library, YMCA Bldg., Trivandrum 695001.
Kottayam Public Library, Kottayam 686001.

Madhya Pradesh:

Public and subscription libraries:

Ahilya Kendriya Pustakalaya, M.G. Rd., Indore 452001.
British Council Library, Bhopal Branch, Tagore School of Fine Arts Bldg., Central T.T. Nagar, Bhopal 477003.
Government Central Library, Jabalpur 482001.

Maharashtra:

Public and subscription libraries:

Alliance Francaise De Bombay Library, Theosophy Hall, Ground Floor, 40, New Marine Lines, Bombay 400020.
Amravati Nagar Wachanalaya, Amravati 444601.
Arya Samaj Matunga Library, 303, Bhimani Street, Matunga, Bombay 400019.

Asiatic Society of Bombay Library, Town Hall, Bombay 400001.
Bombay Adult Education Association, Free Reading Room and Library, 136, Apollo St., Bombay 400001.
Bombay City Social Education Committee's Library, Samaj Shikshan Mandir, Adarsha Nagar, Worli, Bombay 400025.
British Council Library, 178 Backbay Reclamation, Bombay 400020.
British Council Library, Pune Branch, 917/1, Fergusson College Rd., Pune 411004.
Buldana Grade Wachanalaya, Buldana 443001.
Chinchpokli Centre Library and Free Reading Room, Social Service League's, 81, Dr. Ambedkar Rd., Kalachowki, Bombay 400033.
David Sassoon Library and Reading Room, 152, M.G. Rd., Bombay 400001.
Government Divisional Library, C/o Advocate Bobde's Bungalow, Civil Lines, A.I.I. Square, Nagpur 440001.
Indo-Soviet Cultural Society Mohamed uz-Zafar Library, 4th Floor, Syndicate Bank Bldg., Sir P.M. Rd., Bombay 400001.
J.N. Petit Reading Room and Library, The West View, Jame Jamshed Road, 616, Parsi Colony, Dadar, Bombay 400014.
Jawaharlal Nehru Library and Cultural Centre, Navjivan Colony, Mori Rd., Mahim, Bombay 400016.
Kamalabai V. Nimbkar Pustakalaya, Khar Residents' Assocn., First Rd., Khar, Bombay 400052.
Lokmanya Wachanalaya, Arvi Dist., Wardha 442001
Maharashtra Labour Welfare Board Library and Information Centre, Govindji Kenny Road, Naigaon, Bombay 400014.
Maharashtra State Women's Council Public Library, Worli, Bombay 400018.
Mumbai Marathi Grandh Sangrahalaya, Naigaon Cross Rd., Dadar, Bombay 400014.
National Library, S.V. Rd., Bandra, Bombay 400052.
People's Free Reading Room and Library, 6, Raveline St., Dr. D.N. Rd., Bombay 400001.
R.S. Dixit Library, Dharampeth, Nagpur.
Ramakrishna Mission Shivananda Library, 12th Rd., Khar, Bombay 400052.
Sarvajanik Subhas Wachanalaya, Subhas Peth, Nasik City 422001.
Sri Narayan Martand Sarvajanik Wachanalaya, Dist. Jalgaon, Yaval 425301.
Sri Ramakrishna Ashram Library, Dhantoli, Nagpur 440001.
United Lodge of Theosophists Library and free reading room, 40, New Marine Lines, Bombay 400001.
United States Information Service (USIS) Library, 4, New Marine Lines, Bombay 400020.
Wardha Government Dist. Library, Wardha 442001.
YMCA (Central) Library, 12, Wodehouse Road, Bombay 400001.

Special libraries:

Anjuman-i-Islam Urdu Research Institute Library, 92, Dr. D.N. Rd. Bombay 400001.
Bal Bhavan Library, Balodyan, Netaji Subhas Road, Bombay 400004.
Blind Men's Association Library, 81-A, Jaldarshan, L. Jagmohandas Marg, Bombay 400006.
Bombay City Social Education Committee Library, Samaj Sikshan Mandir, Adarsh Nagar, Worli, Bombay 400018.
Forum of Free Enterprise Library, Sohrab House, 235, Dr. D.N. Rd., Bombay 400001.
H. N. Banajee Industrial Home for the Blind Library, 3, Cruickshank Rd., Bombay 400001.
Indian Merchants' Chamber Library, 76, Veer Nariman Rd., Churchgate, Bombay 400001.
K.R. Kama Oriental Institute Library, 136 Apollo Street, Fort, Bombay 400001.
Maharashtra Legislature Library, Council Hall, Bombay 400001.
National Association for the Blind Library, The Jehangir Wadia Bldg., M.G. Rd., Bombay 400001.
Sachivalaya Central Library, Sachivalaya, Bombay 400032.
Servants of India Society (Bombay Branch) Library, Sardar Vallabhbhai Patel Rd., Bombay 400004.
Society for the Rehabilitation of Crippled Children's Library, (Children's Orthopaedic Hospital), Haji Ali Park, Opp. Willingdon Sports Club, Clerk Rd., Mahalaxmi, Bombay 400034.
Workshop for the Blind Talking-Books Library, Dr. Annie Besant Rd., Worli, Bombay 400018.

Nagaland:

Public and subscription libraries:

Government of Nagaland Information Centre-cum-Library, P.O. Phek, Phek 797108.

Orissa:

Information Centre, Jeypore, Home (Public Relations) Department, Government of Orissa, Dist. Koraput, Jeypore.

Pondicherry:

Public and subscription library:

Sri Aurobindo Library, Pondicherry 605002.

Punjab:

Public and subscription libraries:

Central State Library, The Hall, Patiala 147001.
Gurdaspur District Library, Gurdaspur 143521.
Jullunder District Library, Jullundur City 144001.
Municipal Public Library, Bhatinda Dist., Raman 151301.
Nabha District Library, Nabha, Patiala Dist. 147201.
Sangrur District Library, Sangrur 148001.

Rajasthan:

Public and subscription libraries:

Alwar Govt. District Library, 32, Vikas Peth, Alwar 301001.
Bhopalganj Govt. District Library, Bhopalganj, Bhilwara 311001
Churu District Library, Churu 331001.
Jaisalmer District Library, Jaisalmer 345001.
Jhalawar District Library, Jhalawar 326001.
Madangary District Library, Madangary, Krishangarh, Ajmer 305001.
Maharaja Public Library, Jaipur 302001.
Nathdwara Govt. District Library, Nathdwara 313301.
State Divisional Library, Bikaner 334001.

Tamil Nadu:

Public and subscription libraries:

Adyar Library and Research Centre, Adyar, Madras 600020.
British Council Library, 150A, Mount Rd., Madras 600002.
Maharaja Sarfoji's Saraswati Mahal Library, Thanjavur 613001.
Palayamcottah District Central Library, Palayamcottah, Tirunelveli 2.
Sivaganga Dist. Central Library, Ramnad Dist., Sivaganga 623560.

Special libraries:

Blind Relief Association Library, Fort Round Rd., Vellore 632001.
Government Oriental Manuscripts Library, Univ. Library Bldg., Triplicane, Madras 600005.
Iswari Prasad Dattatraya Orthopaedic Central Library, 3, Adyar Bridge Rd., Madras 600028.

Tripura:

Public and subscription libraries:

Amarpur Public Library, P.O. Amarpur 799101.
Birchandra Public Library (State Central Library), Agartala 799001.
Udaipur Public Library, P.O. Radhakishorepur 799120.

Uttar Pradesh:

Public and subscription libraries:

British Council Library, Lucknow Branch, Mayfair Bldg., Hazratganj, Lucknow 266001.

Carmichael Library, Gyanbapi, Varanasi 221001.

Government Library, Najafgarh.

Special libraries:

National Centre for the Blind Library, Dept. of Social Welfare, Govt. of India, Dehra Dun 248001.

Rampur Raza Library, Rampur 244901.

West Bengal:

Public and subscription libraries:

Asiatic Society Library, The, 1, Park St., Calcutta 700016.

Bankura District Library, Bankura Dist. 722101.

Birbhum District Library, Birbhum Dist., P.O. Suri 731101.

British Council Library, Calcutta 700005.

British Council Library, Shakespeare Sarani, Calcutta 700016.

Jalpaiguri District Library, Jalpaiguri 735101.

Krishnagar Public Library, Krishnagar, Nadia 741101.

Special libraries

Braille Library of Blind Boys' Academy, Ramakrishna Mission Ashram, P.O. Narendrapur, 24 Parganas Dist. 743508.

Society for Child Health and Community Welfare Library, 11/A, Ramakrishna Das Lane, Calcutta 700009.

MUSEUM LIBRARIES AND ARCHIVES

Andhra Pradesh:

Salar Jung Museum Library, Hyderabad 500001.

State Archives Govt. of A.P. Library, Tarnaka, Hyderabad 500001.

Assam and Meghalaya:

Assam Secretariat Record Office Library, Shillong 793001.

Commercial Museum, Gauhati Univ. Library, Gauhati 781014.

State Museum Library, Dhubela, Naugaon.

Dist. Museums NEFA Library, Shillong 793001.

Bihar:

Bihar Gandhi Smarak Sangrahalaya Library, Ashok Rajpath, Patna 800001.

Patna Museum Library, Patna 800001.

State Chandradhari Museum Library, Darbhanga 846004.

Chandigarh:

Govt. Museum and Art Gallery Library, Chandigarh 160017.

Delhi:

Crafts Museum Library, All India Handicrafts Board, Govt. of India, Ministry of Foreign Trade, 124, Janpath, Thapar House, New Delhi 110001.

Dept. of Anthropology Museum Library, Univ. of Delhi, Delhi 110006.

Gandhi Smarak Sangrahalaya Library, Rajghat, New Delhi 110001.

National Archives of India Library, Janpath, New Delhi 110001.

National Gallery of Modern Art Library, Jaipur House, New Delhi 110003.

National Museum Library, Janpath, New Delhi 110011.

Nehru Memorial Museum Library, Teen Murti House, New Delhi 110011.

Goa, Daman & Diu:

Directorate Historical Archives of Goa Library, Goa.

Gujarat:

Baroda Museum & Picture Gallery Library, Sayaji Park, Baroda 5.

Gujarat Tribal Museum Library, Tribal Res. & Trg. Instt., Ahmedabad 14.

Kutch Museum Library, Bhuj 370001.

Museum Library, Jubilee Garden, Rajkot 360001.

Museum Library, Museum of Antiquities, Lakhoto, Jamnagar 361001.

Himachal Pradesh:

Ahuri Singh Museum Library, Chamba 176310.

Jammu & Kashmir:

Jammu & Kashmir State Archives Library, Srinagar 190001.

Central Asian Museum, Srinagar 190001.

Karnataka:

Art & Archaeological Museum Library, Kannada Research Institute, Karnatak University, Dharwar 580003.

Sreemanthi Bai Memorial Govt. Museum Library, Mangalore 575001.

Visvesvaraya Industrial & Technological Museum Library, (CSIR), Kasturba Rd., Bangalore 560001.

Kerala:

Kerala State Museum Library, Trivandrum 695001.

Natural History Museum Library, Dept. of Museums & Zoos, Trivandrum 695001.

State Museum Library, Trichur 680001.

Madhya Pradesh:

Central Museum Library, Bombay Agra Rd., Indore 452001.

Forest School, Museum Library, Shivpuri 473551.

M.G.M. Museum Library, Raipur 492001.

Maharashtra:

Archival Library, Secretariat Record Office, Elphinstone College Bldg., Bombay 400001.

Bombay Natural History Society Museum Library, Hornbill House, Apollo St., Fort, Bombay 400001.

Central Museum Library, Nagpur 440002.

Heras Institute of Indian History & Culture Library, St. Xavier's College, Bombay 400001.

Mahatma Phule Vastu Sangrahalaya Library, Pune 411001.

Mani Bhawan, Gandhi Memorial Museum (Gandhi Smarak Sangrahalaya) Library, 19, Laburnum Rd., Bombay 400007.

Prince of Wales Museum of Western India Research Library, Prince of Wales Museum, Fort, Bombay 400039.

Raja Kelkar Museum Library, Shukrawar Peth, Pune 411002.

Victoria & Albert Museum Library, 91-A, Dr. Ambedkar Rd., V.J. Bhonsle Udyan, Byculla, Bombay 400027.

Orissa:

Archaeological Museum Library, Konarak, Puri 752111.

Baripada Museum Library, Baripada 757001.

Orissa State Archives Library, Bhubaneswar 751001.

Orissa State Museum Library, Bhubaneshwar 751001.

Punjab:

Punjab State Archives Library, Patiala 147001.

Rajasthan:

Antiquities Museum Library, Jodhpur 342001.

Govt. Museum Library, Alwar 301001.

Maharaja of Jaipur Museum Library, City Palace, Jaipur 302001.

Pratap Museum Library, Udaipur 313001.

Rajputana Museum Library, Ajmer 305001.

State Museum Library, Bharatpur 321001.

Tamil Nadu:

Gandhi Smarak Sangrahalaya Museum Library, Madurai 625001.

Government Museum Library, Pudukkottai 622001.

Government Museum Sectional Library, Egmore, Madras 600008.

Zoological Museum Library, Dept. of Zoology, Madras Christian College Tambaram, Madras 600045.

T.N. Archives Library, Egmore, Madras 600008.

Uttar Pradesh:

Archaeological Museum Library, Mathura 281001.

Bharat Kala Bhavan Museum Library, Banaras Hindu University, Varanasi 221005.

Motilal Nehru Bal Kendra (Children Museum) Library, Lucknow 266001.

State Archives of U.P. Library, Allahabad 211001.

State Museum Library, Lucknow 266001.

West Bengal:

Asutosh Museum of Indian Art Library, Centenary Bldg., Calcutta University, Calcutta 700012.

Birla Academy of Art & Culture Library, 108/109, Southern Avenue, Calcutta 700029.

Birla Industrial & Technical Museum Library, 19, Gurusaday Rd., Calcutta 700019.

Cultural Research Institute Museum Library, Scheduled Castes & Tribes Welfare Dept., 1, Kiran Shankar Roy Rd., Calcutta 700001.

Gandhi Smarak Sangrahalaya Library, 14, Riverside Rd., Barrackpore, 24 Parganas 743101.

Govt. Industrial & Commercial Museum Library, 45, Ganesh Chandra Avenue, Calcutta 700013.

Indian Museum Library, 27, Jawaharlal Nehru Rd., Calcutta 700013.

Rabindra Bhavan Memorial Museum Library, Santiniketan P.O.

Victoria Memorial Hall Library, Calcutta 700016.

West Bengal State Archives Library, 6, Bhowani Dutt Lane, Calcutta 700007.

AWARDS AND PRIZES

THE highest award Bharat Ratna is given for exceptional work for the advancement of art, literature and science and in recognition of public service of the highest order.

The 19 persons who have received Bharat Ratna are:

1954: Jawaharlal Nehru;
C. Rajagopalachari;
Dr. S. Radhakrishnan;
Dr. C. V. Raman.
1955: Dr. Bhagwan Das;
Dr. M. Visvesvarayya.
1957: Pandit Govind Ballabh Pant.
1958: Dr. D. K. Karve.
1961: Dr. B. C. Roy;
Purushottam Das Tandon.
1962: Dr. Rajendra Prasad.
1963: Dr. Zakir Hussain;
Dr. P. V. Kane.
1966: Lal Bahadur Shastri (Posthumous).
1972: Smt. Indira Gandhi.
1975: V. V. Giri.
1976: K. Kamaraj (Posthumous).
1980: Mother Teresa.
1983: Acharya Vinoba Bhave (Posthumous).

The Republic Day Awards, discontinued since 1978, were re-instituted on January 26, 1980. The award winners of 1984 were as follows:

Bharat Ratna: Not awarded.

Padma Vibbhushan: Not awarded.

Padma Bhushan: Vijay Tendulkar, noted Marathi playwright; Dr. H. Narasimhaiah, former vice-chancellor of Bangalore University; Horace Alexander, an associate and biographer of Mahatma Gandhi and a friend of India based in the U.S.; Dr. Ganda Singh, doyen of Punjab historians and professor emeritus, Punjabi University, Patiala; Michael Ferreira, billiards champion; Sivaji Ganesan, cine actor; K. Natwar Singh, career diplomat and former ambassador to Pakistan; Prof. (Mrs.) Archana Sharma, professor of genetics, Calcutta University; Acharya Baldev Upadhyaya, Sanskrit Literature, Indology and Indian philosophy, Varanasi: Bhuvesh C. Sanyal, painter and art teacher, New Delhi; Dr. Ishwari Prasad, formerly professor of history, Allahabad University; Jnan Prakash Ghosh, musician, Calcutta; Dr. Kotta Sachidananda Murty, former vice-chancellor, Sri Venkateswara University, Tirupati (Andhra Pradesh); Miss Marie Seton, well-known author and a friend of India, London; Prof. Obaid Siddiqi, molecular biologist, Tata Institute of Fundamental Research, Bombay; Pandit Shri Narayan Chaturvedi, educationist and litterateur, Lucknow; Dr. Sripada Pinakapani, Carnatic vocal music, Kurnool (Andhra Pradesh).

Padma Shri: Adoor Gopalakrishnan, Malayalam film director; Dr. Krishnan Prasad Mathur, consultant, Ram Manohar Lohia Hospital, New Delhi; Kshem Chandra 'Suman', Hindi poet and critic; M. H. Ansari, chief of protocol, ministry of external affairs; Myneni Hariprasada Rao, project director, Madras Atomic Power Station, P. P. Kale, ISRO, project director, INSAT-1, Bangalore; Raja Reddy and Radha Reddy, Kuchipudi dance couple; Amitabh Bachchan, Hindi matinee idol; Ben Kingsley who portrayed Mahatma Gandhi in the film "Gandhi"; Dr. Awadhesh Prasad Pandey, Urologist, Christian Medical College and Hospital, Vellore; Dr. Bal Krishna Goyal, consultant cardiologist, Bombay; Dr. (Mrs.) Basantibala Jena, director, family welfare, Puri, Orissa; Bhupen Khakhar, painter, Baroda; Charles Borrommio, athletics, Jamshedpur; Chuni Goswami, footballer, Calcutta; Dharamchand Patni, social worker, Manipur, Mrs. Ganga Devi, Mithila painting, Chatra, Bihar; Ganapatrao Govindrao Jadhav, journalist, Kolhapur; Hari Krishna Wattal, carpet weaver, Agra; Dr. Hariharan Srinivasan, senior orthopaedic surgeon, Central Leprosy Teaching and Research Institute, Chingleput (Tamil Nadu); J. A. K. Martyn, former principal, Doon School, Dehra Dun; Dr. J. S. P. Yadav, director, Central Soil Salinity Research Institute, Karnal; K. Narayanan, ISRO, Space Application Centre, Ahmedabad; K. M. Tiwari, president, Forest Research Institute, Dehra Dun; Mrs. Lakshmi Kumar Chundawat, Rajasthani literature and folklore, Jaipur; Dr. M. Khalillullah, associate professor of cardiology, Maulana Azad Medical College, New Delhi; Dr. Malur Ramaswamy Srinivasan, nuclear scientist, department of atomic energy, Bombay.

Prof. Maria Renee Cura, teaching Indology and interpreting Indian culture in South America, Buenos Aires; Mavelikkara Krishnankutty Nair, instrumental music (mridangam), Trivandrum; Mayangnokchakao, ex-principal, government high school, Mokokchung, Nagaland; Dr. Mukti Prasad Gogoi, professor of gynaecology, Gauhati medical college, Gauhati; Dr. (Mrs.) N. Rajam, instrumental music (violin), Varanasi; Dr. Narayana Balakrishnan Nair, aquatic biologist, Trivandrum; Nek Chand Saini, superintendent, Rock Garden, Chandigarh; Nilambar Pant, director, SHAR centre, Sriharikota; Mrs. Omen Moyong Deori, chairman, Arunachal Pradesh social welfare advisory board; Prem Nath Dhawan, honv. general secretary, Punjab Association, Madras; Purshottam Das, instrumental music (pakhawaj), Nathdwara, Udaipur; Miss Quarratulain Hyder, Urdu novelist and writer, Aligarh; Ram Gopal Vijayavergiya, painter, Jaipur; Miss Roshan Kumari, Kathak dancer, Bombay; Dr. S. P. Jagota, formerly of the ministry of external affairs; Dr. Sadhu Singh

Hamdard, editor, daily, 'Ajit', Jullundur; Miss Shanta Gandhi, chairman, National School of Drama, New Delhi; Suranad Kunjan Pillai, Malayalam literature, Trivandrum; Sayed Abdul Malik, Assamese literature, Jorhat (Assam); Dr. Syed Nasser Ahmed Shah, former principal, government medical college, Srinagar; Prof. (Mrs.) V. Hingorani, professor of gynaecology and obstetrics, All-India Institute of Medical Sciences, New Delhi; Dr. V. R. Gowariker, ISRO, Vikram Sarabhai Space Centre, Trivandrum; Pandit Vinay Chandra Maudgalya, musicologist, New Delhi, and Zainulabudin Gulam Hussain Rangoonwala, co-operative banking, Bombay.

DEFENCE AWARDS

Param Vir Chakra: It is the highest decoration for valour which is awarded to defence personnel for the most conspicuous act of bravery or self-sacrifice in the presence of the enemy whether on land, at sea or in the air.

Recipients: Major Somnath Sharma (Posthumous) 1947; 2nd Lt. R. R. Rane 1948; Com. Hav. Major Piru Singh (Posthumous) 1948; L/Nk. Karan Singh 1948; Naik Jadunath Singh (Posthumous) 1948; Capt. Gurbachan Singh Salaria (Posthumous) 1961; Maj. Dhan Singh Thapa 1962; Sub. Joginder Singh 1962; Maj. Shaitan Singh (Posthumous) 1962; CQMH Abdul Hamid (Posthumous) 1965; Lt. Col. A. B. Tarapore (Posthumous) 1965; Maj. Hoshiar Singh 1971; 2nd Lt. Arun Khetarpal (Posthumous) 1971; L/Nk. Albert Ekka (Posthumous) 1971; Fg. Off. Nirmal Jit Singh Sekhon (Posthumous) 1971.

Ashoka Chakra: The medal is awarded for the most conspicuous feat of bravery or pre-eminent act of valour or self-sacrifice on land, at sea or in the air.

Recipients: Cosmonauts of first joint Indo-Soviet Space mission in 1984—Sq. Ldr. Rakesh Sharma, Col. Yuri Vasilevish Malyshev and Gennady Mikhailovich Strekalov.

Param Vishisht Seva Medal (1984): Lt. Gen. K. Balaram, Signals, Lt. Gen. Hridaya Kaul, Armoured Corps, Lt. Gen. Mathew Thomas, Infantry, Lt. Gen. Ranjit Singh Dayal, Infantry, Lt. Gen. Sehdev Sahgal Infantry, Lt. Gen. Devendra Swaroop (EME), Lt. Gen. A. D. Mohoni (AOS), Lt. Gen. Misbah Mayadas, Armoured Corps, Vice-Admiral M. K. Roy, Vice-Admiral R. H. Tahiliani, Vice-Admiral Subimal Mookerjee, Vice-Admiral Kewal Krishan Nayyar, Air Marshal E. P. R. Nari, Flying (Navigator), Air Marshal Denis Anthony L. Fontaine, Flying (Pilot), Air Marshal Jagjit Singh Sandhanwalia, Aeronautical Engineering (Mechanical), Maj. Gen. Amar Singh Sehgal (AOC), Maj. Gen. Sami Khan, Infantry, Maj. Gen. Aravind Moreshwar Joglekar, Engineers (retd), Maj. Gen. R. K. Gupta, Signals (retd), Air Vice-Marshal Madan Lal Sethi, Flying (Navigator), Air Vice-Marshal J. W. Greene, Flying (Pilot), Air Vice-Marshal Jugal Kishore Kapur, Aeronautical Engineering (Mechanical).

Kirti Chakra (1984): Naik Ram Bahadur Chhetri, Assam Rifles (Posthumous), Mohd. Yakud Ali (Posthumous), Capt. Karni Singh Rathore, Rajputana Rifles, Mr. Suresh Kumar (Posthumous), Arvinder Pal Singh, A. K. Sharma (Posthumous). Sepoy Imesh Chandra, Kumaon (Posthumous), Rifleman Sripal Chand, Garhwal Rifles, Maj. N. J. Nair, Maratha Light Infantry, Sq. Ldr. H. N. Bahadur Thapa, Assam Rifles (Posthumous), Wg. Cdr. Ravish Malhotra who was stand-by to Sq. Ldr. Rakesh Sharma in the first joint Indo-Soviet space mission in 1984.

Ati Vishisht Seva Medal (1984): Maj. Gen. Naresh Hoon, Artillery, Maj. Gen. G. S. Jamwal, Infantry, Maj. Gen. P. D. Sharma, Army Education Corps, Maj. Gen. V. K. Sood, Infantry, Maj. Gen. K. S. Brar, Infantry, Maj. Gen. Tirlok Singh, Artillery, Maj. Gen. P. C. Kochhar, Army Dental Corps, Maj. Gen. (Mrs) Glena Albertina Saha. Military Nursing Service, Maj. Gen. R. A. Gokhale, (EME) (retd), Maj. Gen. S. C. Das, (AMC) (retd), Rear Admiral Bans Narayan Singh, Air Vice-Marshal Kuldeep Singh, Aeronautical Engineering (Mechanical), Air Vice-Marshal Nambi Srinivasa Gopalan, Accounts, Air Vice-Marshal Kuldip Krishan Bakshi, Administrative (retd), Brig. N. C. Mehra, Infantry, Brig. Maharaj Singh, Engineers, Brig. Dilbagh Singh, Infantry, Brig. H. C. Pathak, Infantry, Brig. K. B. Malik, Artillery, Brig. Balvir Ahuja, Engineers, Brig. Y. N. Sharma, Infantry, Brig. R. V. Kulkarni, Infantry, Brig. P. C. Mankotia, Infantry, Brig. Gurcharan Singh, Engineers, Brig. Surinder Singh, Armoured Corps, Brig. Ashok Kumar Mehta, Infantry, Brig. Moti Lal Dar, Armoured Corps, Brig. A. K. Sen Sarma (AMC), Brig. Narjit Singh, Armoured Corps (retd), Brig. Donald Bernard White, Infantry (retd), Commodore M. B. Kunte, Commodore V. S. Shekhawat, Commodore Indrashil Chennagiri Rao, Commodore Ramendra Sharma, Commodore K. M. Kumar (retd), Air Commodore K. M. Rishi, Accounts (retd), Col. K. B. Kapoor, Artillery Medical Corps (retd), Surgeon Capt. Philips Koshi (retd), Group Capt. Jasjit Singh, Flying (Pilot), Gr. Capt. K. A. Hariharan, Flying (Pilot), Gr. Capt. T. K. Seshachari, Aeronautical Engineering (Mechanical), Gr. Capt. P. C. Bugga, Aeronautical Engineering (Mechanical), Gr. Capt. Bharat Kumar, Flying (Pilot), Gr. Capt. K. Lakshmanan, Aeronautical Engineering (Electrical) and Gr. Capt. S. Paranjape, Aeronautical Engineering (Mechanical).

Shaurya Chakra (1984): Civilian Officer, Grade III, K. N. Mainali (Posthumous), Pioneer R. V. Kandathivadakethil, Lt. Ravinder Kakar, Sq. Ldr. S. K. Dixit, Flying (Pilot), Lance Naik P. B. Chhetri, Assam Rifles, Naik Subedar D. S. Thakur, Gorkha Rifles, Capt. K. S. Muthukrishnan, Engineers, Lt. Sushil Singh, J&K Rifles, Lt. Commander A. M. Chitnis, Mason Prithi Singh, Sowar Kalu Ram Jat, Armoured Corps, Flt. Lt. S. L. N. Thantry, Aeronautical Engineering (Electronics), Flt. Lt. S. C. Gaur, Aeronautical Engineering (Mechanical), Naib Subedar D. S. Aswal, Garhwal Rifles, Wing Commander D. K. R. Asher, Flying (Pilot), (Posthumous), Maj. Prem Bahadur Thapa, Garhwal Rifles, Lt. Com. Rajbir Singh Gill, Lt. Com. K. S. Sarma, Lt. Com. K. S. Randhawa, Lt. Com. Rajesh Sethi, Sq. Ldr. R. S. Tandon, Flying (Pilot), Capt. Gopi Lal Paneri, Grenadiers, Naik Subedar Rajendra Singh, Garhwal Rifles, Rifleman Parsu Chhetri (Posthumous), Maj. Ganesh Kale, Maratha Light Infantry, Maj. M. P. Veetil, Madras, Mate Kishan Lal, Sq Ldr. K. P. N. Singh, Flying (Pilot), Sq. Ldr. B. N. Ramachandra, Flying (Pilot) and Master Warrant Officer S. C. Sen, Flight Gunner.

INDIAN NATIONAL SCIENCE ACADEMY AWARDS (1983)

The award consists of a medal and a cash prize of Rs.5,000. *Recipients:* P. K. Agarwal, Water Technology Centre, Indian Agricultural Research Institute, Delhi; Dr. Ram Bhooj, Director of Environmental Ecology, Lucknow; Dr. Deepak Dhar, Theoretical Physics Group, Tata Institute of Fundamental Research, Bombay; Dr. Chandana Halder Mishra, Deptt. of Zoology, Banaras Hindu University, Varanasi; Dr. (Mrs.) Sumita Jha, Centre of Advance Study in Botany, Calcutta University; H. R. Krishnamurthy, Physics Deptt., Indian Institute of Science, Bangalore; Dr. (Miss) Verendrajit Lamba, Deptt. of Zoology, Delhi University; Dr. M. L. R. Lobo, Deptt. of Applied Mathematics, Indian Institute of Science, Bangalore; Dr. G. Malakondiah, Defence Metallurgical Research Laboratory, Hyderabad; Dr. B. V. Venkatraman Prasad, Molecular Biophysics, Indian Institute of Science, Bangalore; H. V. Rambabu, Airborne Surveys, National Geographical Research Institute, Hyderabad; Dr. N. C. Rana, Radio Astronomy Group, Tata Institute of Fundamental Research, Bombay; Dr. D. D. Sharma, Solid State Structural Chemistry Unit, Indian Institute of Science, Bangalore; Dr. D. C. Shastri, Groundnut Improvement Programme, Indian Council of Agricultural Research Institute, Hyderabad; Anil Kumar Saxena, Medical Chemistry Division, Central Drug Research Institute, Lucknow; Dr. A. K. Srivastava, Deptt. of Zoology, Gorakhpur University; Rakesh Tuli, Biology and Agriculture Division, Bbabha Atomic Research Centre, Bombay.

INDIAN COUNCIL OF MEDICAL RESEARCH AWARDS (1982)

This award is given by I.C.M.R. for outstanding work in the field of research. It consists of a citation medal and a cash amount.

The list of awards is as follows:

Dr. P. N. Raju Oration Award: Dr. Kalyan Banerjee (tropical virology).

Sandoz Oration Award: Dr. I. K. Dhawan (advanced cancer of the cheek mucosa).

Dr. Y. S. Narayana Rao Award: Dr. S. S. Agarwal (Staphylococcal infections).

Dr. Kamala Menon Medical Research Award: Dr. S. S. Jolly (endemic fluorosis in Punjab).

Shakuntala Amir Chand Prize: Dr. A. C. Banerjee, Dr. T. C. Raghuram and Dr. Arun Fotedar.

Dr. V. N. Patwardhan Prize: Dr. Prema Ramachandran (Maternal nutrition).

Kshanika Oration Award: Dr. Prithika Chary (Dysphasis in South Indian Population) and Dr. Bani Gajra Bhattacharya.

Dr. M. K. Seshadri Prize: Dr. F. M. Rodrigues.

M. N. Sen Oration Award: Dr. P. Upadhyaya and Dr. G. B. Maru.

ARJUNA AWARDS

The awards were announced on the recommendation of the All India Council of Sports.

Winning Sportsmen, 1981: Krishna Bose *(Archery)*: Sabir Ali *(Athletics)*; G. Manoharan (*Boxing*); Dilip Vengsarkar *(Cricket)*; Sudhir Karmakar (*Football*); Varsha Soni (*Hockey*); Monika Nath *(Kabaddi);* Hemant Takalkar and Sushama Sarolkar (*Kho Kho*); Colonel Sandhu, Chandraprabha Aitwal, Rekha Sharma and Harshawati Bist *(Mountaineering)*; Sharad Chauhan *(Shooting)*; Vijaykumar Satpathi *(Weight-lifting)*; Zareer Karanjia *(Yatching)*.

1982: Charles Boromlo, Chand Ram and Valsamma *(Athletics)*; Partho Ganguli and Madhumita Goswami *(Badminton)*; Ajmer Singh (*Basketball*); Kaur Singh (*Boxing*); Mohinder Amarnath (*Cricket*); Laxman Singh (*Golf*); R. S. Brar and Raghubir Singh (*Horse Riding*); Bhuvaneshwari Kumari (*Squash*); Persis Madon (*Swimming*); Venugopal Chandrashekhar (*Table Tennis*); G. E. Shreedharan (*Volley Ball*); Tara Singh (*Weight-lifting*); Kartar Singh (*Wrestling*); Farukh Tarapore and Falli Unwalla (*Yatching*).

BAJAJ AWARDS (1983)

The award consists of a citation, a medal and a cash prize of Rs. 100,000.

Recipients: 1. Tagadur Ramachandra Rao of Mysore; 2. Dr. Manibhai Bhimbhai Desai, Director, Bharatiya Agro-Industries Foundation, Uruli Kanchan, Pune; and 3. Mrs. Pushpaben Janardanbhai Mehta of Ahmedabad.

The Jamnalal Bajaj Foundation has decided to institute an international award for outstanding contribution to the cause of promoting Gandhian values.

BHATNAGAR AWARDS (1982)

Recipients: Dr. Ramamritha Jayaraman, Kamaraj University, Madurai and Dr. Sunil Kumar Podder, Indian Institute of Science, Bangalore (*Biological Sciences*); Prof. C. L. Khetrapal, Raman Research Institute, Bangalore and Prof. G. S. R. Subbarao, Indian Institute of Science, Bangalore (*Chemical Sciences*); Dr. Kunchidapadam Gopalan, Physical Research Laboratory, Ahmedabad *(Earth Sciences)*: Dr. Raghunath Anant Mashelkar, National Chemical Laboratory, Pune (*Engineering Sciences*); Prof. B. L. S. Prakasa Rao, Indian Statistical Institute, New Delhi and Prof. J. B. Shukla, Indian Institute of Technology, Kanpur (*Mathematical Sciences*); Prof. Girish Saran Agarwal, University of Hyderabad and Prof. T. V. Ramakrishnan, Indian Institute of Science, Bangalore (*Physical Sciences*).

RASHTRA BHUSHAN: The title was instituted by the Fuel Instrument Engineers Foundation, Ichalkaranji. Jayaprakash Narayan was conferred the title "Rashtra Bhushan" with a cash award of Rs. 100,000 on May 17, 1977.

Recipients: **1980 :** Baba Amte (*Social Worker*) and Lata Mangeshkar *(Singer);* **1981:** Dr. Jayant Narlikar (Scientist and Professor of Astro-physics at the Tata Institute of Fundamental Research, Bombay).

LALIT KALA AKADEMI AWARDS

Recipients: **1983:** Krishnaji Howlaji Ara (Bombay painter); S. H. Raza (an expatriate painter who lives in France); **1984:** Jeram Patel (Painting); K. S. Subbanna (Graphics); Rameshwar Broota (Painting); Rameshwar Singh (Painting); Dhiraj Chowdhury (Drawing); Vijay Shinde (Painting); Jyoti Swaroop (Painting); N. Pushpamala (Sculpture); L. P. Anchan (Sculpture); and Balbir Singh Kait (Sculpture).

SAHITYA AKADEMI AWARDS (1983)

The akademi has recognised 22 languages (including English) for consideration of awards.

Following are the names of award winning books and authors in different languages:

Sudrigha Din Aru Rtu (Poetry); Nirmalprabha Bardoli (*Assamese*); Jete Pari Kintu Keno Jabo (Poetry), Sakti Chattopadhyaya (*Bengali*); Aale (Short stories), Ved Rahi (*Dongri*); Latter-day Psalms (Poetry), Nissim Ezekiel *(English);* Chintayami Manasa (Essays), Suresh Joshi *(Gujarati);* Khuntiyon Par Tange Log (Poetry), Late Sarveshwar Dayal Saxena (*Hindi*); Katheyaadalu Hudugi (Short stories), Yashwant Chittal (*Kannada);* Karmelin (Novel), Damodar Mauzo *(Konkani);* Maithili Patrakaritaka Itihas (Treatise), Chandranath Mishra 'Amar' *(Maithili)*, Thiranjedutha Prabandhangal (Essays), S. Guptan Nair (*Malayalam*); Karnagi Mama Amasung Karnagi Aroiba Yahip (Drama), N. Ibobi Singh (*Manipuri*); Sattantar (Novel), Vyankatesh Madgulkar (*Marathi*); Niyati (Novel), Indira Sundas (*Nepali*); Gan Majlis (Essays—Vol III), Harekrishna Mahtab (*Oriya*); Anik Bisthar (Poetry), Pritam Sindh Safeer (*Punjabi*); Ga-Gita (Poetry), Mohan Alok (*Rajasthani*); Mr. Sambulingeswar Vijaya Campu (Biography), Pandarinadhacharya Galgali (*Sanskrit*); Andho Doonhon (Poetry), Arjan Shad (*Sindhi*); Bharathi: Kalamum Karuthum (Literary criticism), T. M. C. Raghunathan (*Tamil*); Jeevana Samaram (Sketches), R. Bharadwaja (*Telugu*); Tazkirah-e-muasirin (Biography—4th part), Malik Ram (*Urdu*).

SANGEET NATAK AKADEMI AWARDS (1982)

The recipients of Akademi Awards were :

Music: Vasantrao Deshpande : Hindustani (Vocal); Alla Rakha : Hindustani Instrumental (Tabla); T. M. Thiagarajan: Karnatic (Vocal); M. S. Gopalakrishnan : Karnatic Instrumental (Violin); Vijay Raghav Rao : Creative music; Ghulam Mohd. Qalinbaf : Sufiana Kalam; R. Ramasubbu: Kanian-Koothu.

Dance : Kartik Ram : Kathak; L. Tombi Devi : Manipuri; Vyjayanthimala Bali : Bharata Natyam; Kumudini Lakhia : Kathak; T. C. Sundaramoorthy : Folk dance; Gambhir Sing Mura : Purulia Chhau.

Theatre : M. G. Rangnekar : Playwriting; Sheila Bhatia : Direction; Manohar Singh : Acting.

BORLAUG AWARD

The award has been instituted by Coromandel Fertiliser Limited in honour of Dr. Norman Borlaug, Nobel laureate. The award consists of a gold medal and cash prize of Rs. 10,000.

Recipients: **1981:** Dr. Hari Krishna Jain, Director, Indian Agricultural Research Institute, New Delhi; **1982:** Dr. N. S. Subba Rao, Head, Micrology Division, Indian Agricultural Research Institute, New Delhi.

NEHRU AWARDS

Literacy: 1968—Dr. (Mrs.) W. H. Fisher; 1969—Mrs. Kulsum Sayani; 1971—Mrs. Durgabai Deshmukh; 1972—Satyen Mitra; 1974—T. S. Avinashilingam Chettiar; 1975—Dr. Mohansingh Mehta; 1976—Dr. T. A. Koshy; 1977—A. R. Deshpande; 1978—G. K. Gaokar; 1979—Mrs. Krishna Aggarwal; 1980—Janardan Rai Nagar; 1981—Chunibhai R. Bhatt; 1982—N. Bhadraiah.

International Understanding: 1965—U. Thant (Burma); 1966—Martin Luther King (U.S.); 1967—Khan Abdul Gaffar Khan (Afghanistan); 1968—Yehudi Menuhin (U.S.); 1969—Mother Teresa (India); 1970—Dr. Kenneth Kaunda (Zambia); 1971—

President Josip Broz Tito (Yugoslavia); 1972—Andre Malraux (France); 1973—President Julius K. Nyerere (Tanzania); 1974—Dr. Raul Prebison (Argentina); 1975—Dr. Jonas Salk (U.S.); 1976—Dr. Guiseppe Tucci (Italy); 1977—Tulsi Meharji Shreshtha (Nepal); 1978—Nichidatsu Fujii (Japan); 1979—Nelson R. Mandela (South Africa); 1980—Barbara Ward (British Economist); 1981—Prof Gunnar Myrdal & wife Mrs. Alva Myrdal (Sweden).

RAMESHWARDAS BIRLA KOSH AWARD

National: Recipients: 1980-81: Dr. V. Ramalingaswami; 1981-82: Prof. G. P. Talwar; 1982-83: Prof. A. S. Paintal; 1983-84: Dr. Promod Karan Sethi.

International: Recipient: 1981-82: Prof. William Trager of Rockefeller University.

DR. B. C. ROY NATIONAL AWARDS (1983)

The award has been instituted by the Medical Council of India.

Eminent Medicalman: Dr. P. N. Wahi, New Delhi.

Eminent Medicalman-cum-Statesman: Dr. Leon D'Souza: Prof. S. Nurul Hasan.

Eminent Person in Art: Dr. Birendra Kumar Bhattacharya.

These awards carry a cash prize of Rs.50,000 and a silver salver.

In the second category, 22 doctors have been selected for outstanding services in medical fields. The award carries Rs.5,000 and a medal. The following are the awardees:

Eminent Medical Teachers: Dr. S. L. Agarwal, Medical College, Jabalpur; Dr. Akulananda Sarangi, V.S.S. Medical College, Burla; Dr. C. Prakash and Dr. S. P. Gupta, Medical College, Rohtak; Prof. J. M. Senapati, S. C. B. Medical College, Cuttack; Dr. B. S. Rana, Maulana Azad Medical College, New Delhi; Dr. Vishwanatha Ramrao Mysorekar, Armed Forces Medical College, Pune; Prof. J. S. Guleria, All-India Institute of Medical Sciences, New Delhi; Dr. Lalita Kameswaran, director of Medical Education, Madras and Dr. C.P. Thakur, Patna Medical College, Patna.

Development of Specialities in Medicine: Dr. G.B. Parulkar, Seth G.S. Medical College and K.E.M. Hospital, Bombay; Dr. M Khalilullah, G. B. Pant Hospital, Prof. Ishwar Chander Verma and Dr. K.K. Malhotra of AIIMS; Prof. N. Mukherjee, additional director-general of health services, P.D. Nigam, Lady Hardinge Medical College, New Delhi and Dr. P.B. Muraleedhar Menon, Medical College, Trivandrum.

Best Service in Socio-medical Relief: Dr. R. K. Saran, Hindu Rao Hospital, Delhi; Dr. (Mrs.) Lalitha Rao, Minister for Public Health, Maharashtra; J.V.R. Sarma, Hyderabad and Dr. P..V. Mehta, Gynaecologist and Laparoscopy expert.

KALINGA PRIZES

The prize named after the ancient Indian empire of that name, was offered as a Gift to the United Nations Education, Scientific & Cultural Organisation (UNESCO) by an Indian Industrialist Mr. Biju Patnaik of Orissa. The prize carries one thousand pounds sterling in cash. It was started in 1952.

1952:-Prince Louis de Broglie, Professor of Physics, University of Paris (France); 1953:- Dr. Julian Huxley, F.R.C.S. (U.K.): 1954:- Waldemar Kaempffert, Science Editor of the "New York Times" (U.S.); 1955:- Dr. August P. Sunner, Head of Physiology Dept., University of Caracas (Venezuela); 1956:-Prof. George Gamond, University of Colorado (U.S.); 1957:-Bertrand Russel (U.K.); 1958:- Karl Von Frisch, German Scientist (Germany & Austria); 1959:- Jean Rostand, French Scientist (France); 1960:- Ritchi Calder (U.K.); 1961:- Arthur C. Clarke, President, Ceylon Astronomical Association; 1962:- Gerard Piel, American Science Writer; 1963:- Jagjit Singh (India); 1964:- Dr. R. Warren Weaver (U.S.); 1965:- Dr. Eugene Robinowitch (France); 1966:- Paul Couderc, Astronomer & Writer (France); 1967:- Prof. Fred Hoyle (U.K.); 1968:- Sir Gavin de Beer (U.K.); 1970:- Miss Margaret Mead (U.S.); 1971:- Prof. Pierre Auger (France); 1973:- Dr. Philip Ableson (U.S.) and Nigel Calder (U.K.); 1974: Dr. Luis Estrada Martinex (Mexico); 1976:- Alexander Oparin (Soviet Union); Sir George Porter (U.K.); 1981:- David Frederick Attenborough (U.K.); Dennis Flanagan (U.S.); 1982:-Apristides Bastidas (Venice).

JNANPITH AWARDS

1965:- Mahakavi Sankara Kurup—"Odakuzhal"
1966:- Tara Shanker Bannerjee—"Ganadevata"
1967:- Dr. K. V. Puttappa—"Ramayana Darshanam"; Uma Shanker Joshi—"Nisheeth".
1968:- Sumitranandan Pant—"Chidambaram".
1969:- Raghupati Sahai Firaq—"Gul-e-Naghma"
1970:- Dr. Vishwanatha Satyanarayana—"Ramayana Kalpavrikshanu".
1971:- Bishnu Dey—"Smriti Satta Bhavishyat".
1972:- Ramdhari Singh Dinkar—"Urvashi".
1973:- Dr. Dattatreya Ramchandra Bendre—"Naku Tanthi"; Gopinath Mahanty—"Mati Matal".
1974:- Vishnu Sakharam Khandekar—"Yayati".
1975:- P. V. Akilandam—"Chittirappavai".
1976:- Mrs. Ashapurna Devi—"Prathama Pratishruti".
1977:- Dr. K. Shivarama Karanth—"Mukajjiya Kanasugalu".
1978:- S. H. Vatsyayan—"Kitni Navon Men Kitni Bar".
1979:- Birendra Kumar Bhattacharya—"Mrityanjaya".
1980:- S. K. Pottekkat—"Oru Desathinte Katha".
1981:- Amrita Pritam—"Kagaz Te Kanwas".
1982:- Mahadevi Verma—"Yama".

DHANVANTARI AWARDS

1980: Dr. B. N. Purandare, Gynaecologist, Bombay; 1981: Dr. D. J. Jussawalla, Cancer Specialist and former director of Tata Memorial Hospital and Cancer Research Institute, Bombay; 1982: Dr. K. T. Dholakia, Chief of Orthopaedic services at Bombay Hospital Medical Research Centre and Breach Candy Hospital. *Special awardee*— Dr. Christian Barnaard; 1983: Dr. B. Ramamurthy.

NATIONAL FILM AWARDS

1982:

Lotus Awards

The National Film Awards Scheme was reconstituted during 1975. "Lotus Awards" have replaced the earlier President's medals. The awards consist of Swarna Kamal (Golden Lotus), Rajat Kamal (Silver Lotus) and the Bronze Lotus. While the first two are for different categories of films, the Bronze Lotus is given to the leading actor and actress of the award winning films.

Best Feature Film : 'Chokh' (Bengali), produced by West Bengal Government and directed by Uttpalendu Chakravarty.
Second Best Feature Film: 'Kharij' (Bengali), produced by Mrinal Sen.

Language-wise: *Assamese:* 'Aparoopa'; *Bengali:* 'Nagmoti'; *Hindi:* 'Katha'; *Kannada*: 'Phanivamma'; *Malayalam:* 'Chaapa'; *Marathi:* 'Shapit'; *Tamil:* 'Ezhavathu Manithan'; *Telugu:* 'Megha Sandesam'.

Best Actor: Kamalahasan (Moondram Pirai); *Best Actress:* Shabana Azmi (Arth); *Best Child Artiste*: Master Vimal (Aroodam); *Best Director:* Uttpalendu Chakravarty (Chokh); *Best Playback Singer:* K. J. Yesudas (Megha Sandesam); *Best Female Playback Singer:* P. Suseela (Megha Sandesam); *Best Music Director:* Ramesh Naidu (Megha Sandesam).

First Best Film of a Director: Kann Sivandhal Mann Sivakkum (Tamil) by Sreedhar Rajan.

Best Feature Film on Family Welfare: 'Spandan' (Hindi).

Best Information Short Film: 'An Indian Story'.

Best Book on Cinema: 'Chalachitra Sameeksha' (Malayalam) by Vijaya Krishnan.

Best Experimental Film: Chakkar Chanduka Chameliwala' directed by N. C. Thade.

Best Animation Film: 'Raju and Tinku' directed by Ajoy Kumar Chakravarty.

Best Indian News Review: 'Asiad 82-News', produced by N. S. Thapa, Films Division, Bombay.

PHALKE AWARDS

In 1969. the centenary year of Dada Saheb Phalke. father of the Indian cinema, a special award named after him was created by the Ministry of Information and Broadcasting to be given in recognition of his outstanding service to Indian cinema which consisted of Rs. 20,000 (now increased to Rs. 40,000), a gold lotus and a shawl.

Devika Rani was the first recipient of the Phalke Award in 1969. The other recipients were : B. N. Sircar, 1970; Prithviraj Kapoor (Posthumous). 1971; Pankaj Mullick, 1972; Ruby Myers (Sulochana), 1973; B. N. Reddy, 1974; Dhiren Ganguli, 1975; Kanan Devi, 1976; Nitin Bose, 1977; Rai Chand Boral, 1978; Janakee of Madhu Movies, 1979; P. Jairaj (Film actor of Andhra Pradesh), 1980; Naushad Ali (Music director), and best Marathi film Umbartha, 1981; L. V. Prasad (Veteran film maker), 1983.

FILMFARE AWARDS

Best Picture : Do Bigha Zamin (Bimal Roy), 1953; Boot Polish (Raj Kapoor), 1954; Jagriti (S. Mukerji), 1955; Jhanak Jhanak Payal Baaje (V. Shantaram), 1956; Mother India (Mehboob), 1957; Madhumati (Bimal Roy), 1958; Sujata (Bimal Roy), 1959; Mughal-e-Azam (K. Asif), 1960; Jis Desh Men Ganga Behti Hai (Raj Kapoor), 1961; Sahib Bibi Aur Ghulam (Guru Dutt), 1962; Bandini (Bimal Roy), 1963; Dosti (Tarachand Barjatiya), 1964; Himalay Ki Godmein (Shankerbhai J. Bhatt), 1965; Guide (Dev Anand), 1966; Upkar (Vishal Pictures), 1967; Brahmachari (G. P. Sippy), 1968; Aradhana (Shakti Samanta). 1969: Khilona, 1970; Anand (Hrishikesh Mukherji and N. C. Sippy), 1971; Be-imaan (Sohanlal Kanwar), 1972; Anuraag (Shakti Samanta), 1973; Rajnigandha (Basu Chatterji), 1974; Deewaar (Gulshan Rai), 1975; Mausam (Mallikarjun Rao), 1976; Bhumika (Lalit M. Bijlani & Freni M. Variava), 1977; Main Tulsi Tere Aangan Ki (Raj Khosla), 1978; Junoon (Shashi Kapoor), 1979; Khubsoorat (N. C. Sippy & S. Mukherji), 1980; Kalyug (Shashi Kapoor), 1981; Shakti (Mushir-Riaz), 1982: Ardh Satya (Govind Nihalani), 1983.

Best Director: Bimal Roy (Do Bigha Zamin), 1953; Bimal Roy (Parineeta), 1954; Bimal Roy (Biraj Bahu), 1955; V. Shantaram (Jhanak Jhanak Payal Baaje), 1956; Mehboob (Mother India), 1957; Bimal Roy (Madhumati), 1958; Bimal Roy (Sujata), 1959; Bimal Roy (Parakh), 1960; B. R. Chopra (Kanoon), 1961; Abrar Alvi (Sahib Bibi Aur Gulam), 1962; Bimal Roy (Bandini), 1963; Raj Kapoor (Sangam), 1964; Yash Chopra (Waqt), 1965; Vijay Anand (Guide), 1966; Manoj Kumar (Upkar), 1967; Ramanand Sagar (Ankhen), 1968; Yash Chopra (Ittefaq), 1969; Asit Sen (Safar), 1970; Raj Kapoor (Mera Naam Joker), 1971; Sohanlal Kanwar (Be-imaan), 1972; Yash Chopra (Daag), 1973; Manoj Kumar (Roti, Kapada aur Makaan), 1974; Yash Chopra (Deewaar), 1975; Gulzar (Mausam). 1976; Basu Chatterji (Swami), 1977; Satyajit Ray (Shatranj Ke Khilari). 1978; Shyam Benegal (Junoon), 1979; Govind Nihalani (Aakrosh), 1980; Muzaffar Ali (Umrao Jaan), 1981; Raj Kapoor (Prem Rog), 1982; Govind Nihalani (Ardh Satya), 1983

Best Actor: Dilip Kumar (Daag), 1953; Bharat Bhooshan (Shri Chaitanya Mahaprabhu). 1954; Dilip Kumar (Azaad), 1955; Dilip Kumar (Devdas), 1956; Dilip Kumar (Naya Daur), 1957; Dev Anand (Kala Pani). 1958; Raj Kapoor (Anari), 1959; Dilip Kumar (Kohinoor), 1960; Raj Kapoor (Jis Desh Men Ganga Behti Hai), 1961; Ashok Kumar (Rakhi), 1962; Sunil Dutt (Mujhe Jeene Do), 1963; Dilip Kumar (Leader), 1964; Sunil Dutt (Khandaan), 1965; Dev Anand (Guide), 1966; Dilip Kumar (Ram Aur Shyam), 1967; Shammi Kapoor (Brahmachari), 1968; Ashok Kumar (Ashirwad), 1969; Rajesh Khanna (Sachha Jutha), 1970; Rajesh Khanna (Anand), 1971; Manoj Kumar (Be-imaan), 1972; Rishi Kapoor (Bobby), 1973; Rajesh Khanna (Aavishkar), 1974; Sanjeev Kumar (Aandhi), 1975; Sanjeev Kumar (Arjun Pandit), 1976; Amitabh Bachchan (Amar Akbar Anthony), 1977; Amitabh Bachchan (Don), 1978; Amol Palekar (Gol Maal), 1979; Naseeruddin Shah (Aakrosh), 1980; Naseeruddin Shah (Chakra), 1981; Dilip Kumar (Shakti), 1982; Naseeruddin Shah (Masoom), 1983.

Best Actress: Meena Kumari (Baiju Bawra). 1953; Meena Kumari (Parineeta), 1954; Kamini Kaushal (Biraj Bahu), 1955; Nutan (Seema), 1956; Nargis (Mother India). 1957; Vyjayanthimala (Sadhna), 1958; Nutan (Sujata), 1959; Bina Rai (Ghunghat), 1960; Vyjayanthimala (Ganga-Jumna), 1961: Meena Kumari (Sahib Bibi Aur Ghulam), 1962; Nutan (Bandini), 1963; Vyjayanthimala (Sangam), 1964; Meena Kumari (Kaajal), 1965; Waheeda Rehman (Guide), 1966; Nutan (Milan), 1967; Waheeda Rehman (Neel Kamal), 1968; Sharmila Tagore (Aradhana), 1969; Mumtaz (Khilona), 1970; Asha Parekh (Kati Patang), 1971; Hema Malini (Seeta Aur Geeta), 1972; Dimple Kapadia (Bobby) & Jaya Bhaduri (Abhimaan), 1973; Jaya Bhaduri (Kora Kagaz), 1974; Lakshmi (Julie), 1975; Raakhi (Tapasya), 1976; Shabana Azmi (Swami), 1977; Nutan (Main Tulsi Tere Aangan Ki), 1978; Jaya Bhaduri (Nauker), 1979; Rekha (Khubsoorat), 1980; Smita Patil (Chakra), 1981; Padmini Kolhapure (Prem Rog), 1982; Shabana Azmi (Arth), 1983.

Best Supporting Actor: David (Boot Polish), 1954; Abhi Bhattacharya (Jagriti), 1955; Motilal (Devdas), 1956; Raj Mehra (Sharada), 1957; Johnny Walker (Madhumati), 1958; Man Mohan Krishna (Dhool Ka Phool), 1959; Motilal (Parakh), 1960; Nana Palsikar (Kanoon), 1961: Mehmood (Dil Tera Deewana), 1962; Raj Kumar (Dil Ek Mandir), 1963; Nana Palsikar (Shehar Aur Sapna), 1964; Raj Kumar (Waqt), 1965; Ashok Kumar (Afsana), 1966; Pran (Upkar), 1967; Sanjeev Kumar (Shikar), 1968; Pran (Ansoo Ban Gaye Phool), 1969; Feroz Khan (Aadmi Aur Insaan), 1970; Amitabh Bachchan (Anand), 1971; Pran (Be-imaan), 1972; Amitabh Bachchan (Namak Haram), 1973; Vinod Khanna (Haath Ki Safai), 1974; Shashi Kapoor (Deewaar), 1975; Prem Chopra (Do Anjane), 1976; Shreeram Lagoo (Gharaonda), 1977; Saeed Jaffrey (Shatranj Ke Khilari), 1978; Amjad Khan (Dada), 1979; Om Puri (Aakrosh), 1980; Amjad Khan (Yaarana), 1981; Shammi Kapoor (Vidhata), 1982: Sadashiv Amrapurkar (Ardh Satya). 1983.

Best Supporting Actress: Usha Kiron (Baadbaan), 1954; Nirupa Roy (Munimji), 1955; Vyjayanthimala (Devdas), 1956; Shyama (Sharada), 1957; Nalini Jaywant (Kala Pani), 1958; Lalita Pawar (Anari), 1959; Nanda (Aanchal), 1960; Nirupa Roy (Chhaya), 1961; Shashikala (Aarti), 1962; Shashikala (Gumrah), 1963; Nirupa Roy (Shehnai), 1964; Padmini (Kaajal), 1965; Simi (Do Badan), 1966; Jamuna (Milan), 1967; Simi (Saathi). 1968; Tanuja (Paisa Ya Pyar), 1969; Chand Usmani (Pehchan), 1970; Farida Jalal (Paras), 1971; Zeenat Aman (Hare Rama Hare Krishna), 1972: Raakhee (Daag). 1973: Durga Khote (Bidaai). 1974: Nadira (Julie), 1975; Kajri (Balika Badhu), 1976; Asha Sachdev (Priyatama), 1977; Reena Roy (Apnapan), 1978; Helen (Lahu Ke Do Rang), 1979; Padmini Kolhapure (Insaf ka Tarazu), 1980; Supriya Pathak (Kalyug), 1981; Supriya Pathak (Bazaar), 1982; Rohini Hattangadi (Arth). 1983.

Best Comedian: Mehmood (Pyar Kiye Jaa), 1966; Om Prakash (Dus Lakh), 1967; Johnny Walker (Shikar), 1968; Mehmood (Waris), 1969; I. S. Johar (Johnny Mera Naam), 1970; Not awarded, 1971; Not awarded, 1972; Asrani (Aaj ki Taaza Khabar), 1973; Mehmood (Vardaan), 1974; Deven Varma (Chori Mera Kaam), 1975; Asrani (Balika Badhu), 1976; Deven Varma (Chor ke Ghar Chor), 1978; Utpal Dutt (Gol Maal), 1979; Not awarded, 1980; Utpal Dutt (Naram Garam), 1981; Deven Varma (Angoor), 1982.

Best Story Writer: Pt. Mukhram Sharma (Aulad), 1954; Pt. Mukhram Sharma (Vachan), 1955; Amiya Chakrabarty (Seema), 1956; Akhtar Mirza (Naya Daur), 1957; Pt. Mukhram Sharma (Sadhna), 1958; Subodh Ghosh (Sujata), 1959; Ruby Sen (Masoom), 1960; Shridhar (Nazrana), 1961; K. P. Kottarakkara (Rakhi), 1962; Jarasandha (Bandini), 1963; Ban Bhatt (Dosti), 1964; Akhtar Mirza (Waqt), 1965; R. K. Narayan (Guide), 1966; Manoj Kumar (Upkar), 1967; Sachin Bhaumick (Brahmachari), 1968; V. S. Kanetkar (Ansoo Ban Gaye Phool), 1969; Chandrakant Kakodkar (Do Raaste), 1970; Hrishikesh Mukerji (Anand), 1971; Basu Bhattacharya (Anubhav), 1972; Salim Javed (Zanjeer), 1973; Kaifi Azmi and Ismat Chugtai (Garam Hawa), 1974; Salim

Javed (Deewaar), 1975; Dr. Balaichand Mukherjee (Arjun Pandit), 1976; Sarat Chandra (Swami), 1977; Dinesh Thakur (Ghar), 1978; Shanker Shesh (Dooriyan), 1979; Vijay Tendulkar (Aakrosh), 1980; Chetan Anand (Kudrat), 1981; Samaresh Basu (Namkeen), 1982; D. Panwalkar (Ardh Satya), 1983.

Best Music Director: Naushad (Baiju Bawra), 1953; S. D. Burman (Taxi Driver), 1954; Hemant Kumar (Nagin), 1955; Shanker-Jaikishen (Chori Chori), 1956; O. P. Nayyar (Naya Daur), 1957; Salil Choudhury (Madhumati), 1958; Shanker-Jaikishen (Anari), 1959; Shanker-Jaikishen (Dil Apna Aur Preet Parai), 1960; Ravi (Gharana), 1961; Shankar-Jaikishen (Professor), 1962; Roshan (Taj Mahal), 1963; Laxmikant Pyarelal (Dosti), 1964; Ravi (Khandaan), 1965; Shanker-Jaikishen (Suraj), 1966; Laxmikant Pyarelal (Milan), 1967; Shanker-Jaikishen (Brahmachari), 1968; Laxmikant Pyarelal (Jeene Ki Raah), 1969; Shanker-Jaikishen (Pehchan), 1970; Shanker-Jaikishen (Mera Nam Joker), 1971; Shanker-Jaikishen (Be-imaan), 1972; S. D. Burman (Abhimaan), 1973; Kalyanji Anandji (Kora Kagaz), 1974; Rajesh Roshan (Julie), 1975; Khayyam (Kabhi Kabhie), 1976; Laxmikant Pyarelal (Amar Akbar Anthony), 1977; Laxmikant Pyarelal (Satyam Shivam Sundaram), 1978; Laxmikant Pyarelal (Sargam), 1979; Laxmikant Pyarelal (Karz), 1980; Khayyam (Umrao Jaan), 1981; R. D. Burman (Sanam Teri Kasam), 1982; R. D. Burman (Masoom), 1983.

Best Photographer (Black & White): Taru Dutt (Boot Polish), 1954; Dwarka Divecha (Yasmin), 1955; Radhu Karmakar (Shree 420), 1956; Faredoon Irani (Mother India), 1957; Dilip Gupta (Madhumati), 1958; V. K. Murthy (Kaagaz Ke Phool), 1959; R. D. Mathur (Mughal-e-Azam), 1960; V. Babasaheb (Ganga-Jumna), 1961; V. K. Murthy (Sahib Bibi Aur Ghulam), 1962; Kamal Bose (Bandini), 1963; K. H. Kapadia (Woh Kaun Thi), 1964; Ramchandra (Yaadein), 1965; Jaywant Pathare (Anupama), 1966; Jal Mistry (Baharon Ke Sapne), 1967; Nariman A. Irani (Saraswatichandra), 1968; Kamal Bose (Anokhi Raat), 1969; Kamal Bose (Khamoshi), 1970; Kamal Bose (Dastak), 1971. Not awarded since 1972.

Best Photographer (Colour): Krishnarao Vashirde (Sehra), 1963; Krishnarao Vashirde (Geet Gaya Pattharon Ne), 1964; Dharam Chopra (Waqt), 1965; Fali Mistry (Guide), 1966; M. N. Malhotra (Hamraaz), 1967; G. Singh (Aankhen), 1968; Faredoon Irani (Duniya), 1969; Jal Mistry (Heer Ranjha), 1970; Radhu Karmakar (Mera Naam Joker), 1971; P. Vaikunth (Seeta Aur Geeta), 1972; Jal Mistry (Jheelke Us Paar), 1973; A. Vincent (Premnagar), 1974; Kamal Bose (Dharmatma), 1975; Fali D. Mistry (Fakira), 1976; Munir Khan (Hum Kisise Kum Nahin), 1977; Radhu Karmakar (Satyam Shivam Sundaram), 1978; Govind Nihalani (Junoon), 1979; S. M. Anwar (Shaan), 1980; Jal Mistry (Kudrat), 1981; Jaywant Pathare (Bemisal), 1982; Govind Nihalani (Vijeta), 1983.

Best Sound Recordist: Ishan Ghosh (Jeevan Jyoti), 1954; R. Kaushik (Amar), 1955; A. K. Parmar (Jhanak Jhanak Payal Baaje), 1956; R. Kaushik (Mother India), 1957; Ishan Ghosh (Chandan), 1958; A. K. Parmar (Navrang), 1959; George D'Cruz (Parakh), 1960; Kuldeep Singh (Junglee), 1961; S. Y. Pathak (Bees Saal Baad), 1962; Dinshaw Billimoria (Bandini), 1963; Allauddin (Sangam), 1964; Essa M. Suratwala (Yaadein), 1965; Manohar Amberkar (Mera Saaya), 1966; J. M. Barot (Jewel Thief), 1967; P. Thakkersey (Shikar), 1968; M. A. Shaikh (Ittefaq), 1969; S. C. Bhambri (Talash), 1970; Allauddin (Mera Naam Joker), 1971; Jehangir Nowroji (Amar Prem), 1972; Allauddin (Bobby), 1973; L. H. Bhatia (Amir Garib), 1974; M. A. Shaikh (Deewaar), 1975; P. Harikishan (Bairaag), 1976; Dinshaw Billimoria (Agent Vinod), 1977; Ranjit Biswas (Devata), 1978; Hitendra Ghosh (Junoon), 1979; P. Harikishan (Qurbani), 1980; Hitendra Ghosh (Kalyug), 1981; P. Harikishan (Shakti), 1982.

Best Art Director (Black & White): Rusi Banker (Mirza Ghalib), 1955; Kanu Desai (Jhanak Jhanak Payal Baaje), 1956; M. R. Acharekar (Pardesi), 1957; Sudhendu Roy (Madhumati), 1958; M. R. Acharekar (Kaagaz Ke Phool), 1959; Biren Naug (Chaudhvin Ka Chand), 1960; M. R. Acharekar (Jis Desh Men Ganga Behti Hai), 1961; D. R. Jadhav and Ram Yedekar (Son of India), 1962; Sudhendu Roy (Mere Mehboob), 1963; G. L. Jadhav & T. K. Desai (Kohraa), 1964; M. S. Sathyu (Haqeeqat), 1965; Sant Singh (Yeh Raat Phir Na Aayegi), 1966; H. V. Maharudria (Taqdeer), 1967; Ajit Banerjee (Majhli Didi), 1968; Ajit Banerjee (Anokhi Raat), 1969; Not awarded since 1970.

Best Art Director (Colour): Sant Singh (Jahan Ara), 1964; S. S. Samel (Gumnaam), 1965; Shanti Das (Phool Aur Patthar), 1966; Abdul Rahim (Chandan Ka Palna), 1967: A. A. Majid (Noor Jehan), 1968; A. R. Kakkad & Baburao T. Poddar (Tamanna), 1969; Shanti Das (Talash), 1970; Bansi Chandragupta (Seema), 1971; N. B. Kulkarni (Pakeezah), 1972; A. Rangaraj (Bobby), 1973; Sudhendu Roy (Sagina), 1974; Bansi Chandragupta (Do Jhoot), 1975; S. S. Samel (Fakira), 1976; Shanti Das (Hum Kisise Kum Nahin), 1977; T. K. Desai (Des Pardes), 1978; Madhukar Shinde (Lahu ke do Rang), 1979; C. S. Bhati (Aakrosh), 1980; Bansi Chandragupta (Chakra), 1981; Ajit Banerjee (Namkeen), 1982; N. B. Kulkarni (Razia Sultan), 1983.

Best Editor: Hrishikesh Mukherjee (Naukri), 1955; G. G. Mayekar (Shree 420), 1956; Shivaji Awdhut (Sharda), 1957; Hrishikesh Mukherjee (Madhumati), 1958; Chintaman Borkar (Navrang), 1959; Moosa Mansoor (Kohinoor), 1960; G. G. Mayekar (Jis Desh Men Ganga Behti Hai), 1961; Keshav Nanda (Bees Saal Baad), 1962; Pran Mehra (Gumrah), 1963; Raj Kapoor (Sangam), 1964; Pratap Dave (Himalay Ki Godmein), 1965; Vasant Borkar (Phool Aur Patthar), 1966; B. S. Glaad (Upkar), 1967; N. M. Shankar (Saathi), 1968; Balbir S. Glaad (Nanna Farishta), 1969; Vijay Anand (Johnny Mera Naam), 1970; Not awarded, 1971; Manoj Kumar (Shor), 1972; R. D. Mahadik (Zanjeer), 1973; Kamalakar Karkhanis (Roti), 1974; M. S. Shinde (Sholay), 1975; Bijoy Chowdhury (Balika Badhu), 1976; Kamalakar Karkhanis (Amar Akbar Anthony), 1977; B. Prasad (Badaltey Rishtey), 1978; Divkar Bhanudas (Junoon), 1979; S. B. Mane (Insaf ka Tarazu), 1980; K. R. Kitoo (Ek Duuje Ke Liye), 1981; Raj Kapoor (Prem Rog), 1982; Keshav Nanda (Vijeta), 1983.

Best Lyricist: Shailendra (Yahudi), 1958; Shailendra (Anari), 1959; Shakeel Badayuni (Chaudhvin Ka Chand), 1960; Shakeel Badayuni (Gharana), 1961; Shakeel Badayuni (Bees Saal Baad), 1962; Sahir Ludhianvi (Taj Mahal), 1963; Majrooh Sultanpuri (Dosti), 1964; Rajendra Krishna (Khandaan), 1965; Hazrat Jaipuri (Suraj), 1966; Gulshan Bawra (Upkar), 1967: Shailendra (Brahmachari), 1968; Neeraj (Chanda Aur Bijli), 1969; Verma Malik (Pehchan), 1970; Hazrat Jaipuri (Andaz), 1971; Verma Malik (Be-imaan), 1972; Gulshan Bawra (Zanjeer), 1973; Santosh Anand (Roti, Kapada aur Makaan), 1974; Indivar (Amanush), 1975; Sahir Ludhianvi (Kabhi Kabhie), 1976; Gulzar (Gharaonda), 1977; Anand Bakshi (Apnapan), 1978; Gulzar (Gol Maal), 1979; Gulzar (Thodisi Bewafaii), 1980; Anand Bakshi (Ek Duuje Ke Liye), 1981; Santosh Anand (Prem Rog), 1982; Gulzar (Masoom), 1983.

Best Playback Singer*: Lata Mangeshkar (Madhumati), 1958; Mukesh (Anari), 1959; Mohammed Rafi (Chaudhvin Ka Chand), 1960; Mohammed Rafi (Sasural), 1961; Lata Mangeshkar (Bees Saal Baad), 1962; Mahendra Kapoor (Gumrah), 1963; Mohammed Rafi (Dosti), 1964; Lata Mangeshkar (Khandaan), 1965; Mohammed Rafi (Suraj), 1966; Mahendra Kapoor (Hamraaz), Asha Bhosle (Dus Lakh), 1967; Mohammed Rafi (Brahmachari), Asha Bhosle (Shikar), 1968; Kishore Kumar (Aradhana), Lata Mangeshkar (Jeene Ki Raah), 1969; Mukesh (Pehchan), Sharda (Jahan Pyar Miley), 1970; Manna Dey (Mera Naam Joker), Asha Bhosle (Caravan), 1971; Mukesh (Be-imaan), Asha Bhosle (Hare Rama Hare Krishna), 1972; Narendra Chanchal (Bobby), Asha Bhosle (Naina), 1973; Mahendra Kapoor (Roti, Kapada aur Makan), Asha Bhosle (Pran Jaye Par Vachan Na Jaye), 1974; Kishore Kumar (Amanush) & Sulakshana Pandit (Sankalp), 1975; Mukesh (Kabhi Kabhie) & Hemlata (Chitchor), 1976; Mohammed Rafi (Hum Kisise Kum Nahin), Preeti Sagar (Manthan), 1977; Kishore Kumar (Don) & Asha Bhosle (Don), 1978; Yesu Das (Dada) &

Separate awards for male and female categories since 1967.

Vani Jairam (Meera), 1979; Kishore Kumar (Thodisi Bewafaii) & Nazia Hassan (Qurbani), 1980; Amit Kumar (Love Story) & Parveen Sultana (Kudrat), 1981; Kishore Kumar (Namak Halal) & Salma Agha (Nikaah), 1982; Kishore Kumar (Agar Tum Na Hote) & Arti Mukherji (Masoom), 1983.

Best Dialogue Writer: Rajinder Singh Bedi (Madhumati), 1958; Ramanand Sagar (Paigham), 1959; Aman, Kamal Amrohi, Wajahat Mirza, Ehsan Rizvi (Mughal-e-Azam), 1960; Wajahat Mirza (Gunga-Jumna), 1961; Akhtar-ul-Iman (Dharmputra), 1962; Arjun Dev Rashk (Dil Ek Mandir), 1963; Govind Moonis (Dosti), 1964; Akhtar-ul-Iman (Waqt), 1965; Vijay Anand (Guide), 1966; Manoj Kumar (Upkar), 1967; Ali Raza (Saraswatichandra), 1968; Pandit Anand Kumar (Anokhi Raat), 1969; Rajinder Singh Bedi (Satyakam), 1970; Gulzar (Anand), 1971; Ramesh Pant (Amar Prem), 1972; Gulzar (Namak Haraam), 1973; Kaifi Azmi (Garam Hawa), 1974; Salim Javed (Deewaar), 1975; Sagar Sarhadi (Kabhi Kabhie), 1976; Vrajendra Gaur (Dulhan Wohi Jo Piya Man Bhaye), 1977; Dr. Rahi Masoon Raza (Main Tulsi Tere Aangan Ki), 1978; Satyadev Dubey (Junoon), 1979; Shabd Kumar (Insaf Ka Tarazu), 1980; Kadar Khan (Meri Aawaz Suno), 1981; Dr. Achla Nagar (Nikaah), 1982; Mahesh Bhatt (Arth), 1983.

Best Screen Play Writer: Nabendu Ghosh (Majhli Didi), 1968; Hrishikesh Mukerjee (Anokhi Raat), 1969; Vijay Anand (Johny Mera Naam), 1970; Basu Chatterji (Sara Akash), 1971; Arvind Mukherjee (Amar Prem), 1972; Javed (Zanjeer), 1973; Kaifi Azmi and Shama Zaidi (Garam Hawa), 1974; Salim Javed (Deewaar), 1975; Basu Chatterji (Chhoti si Baat), 1976; Lekh Tandon, Vrajendra Gaur & Madhusudan Kalelkar (Dulhan Wohi Jo Piya Man Bhaye), 1977; Kamlesnwar (Pati Patni Aur Woh), 1978; Girish Karnad & B. V. Karanth (Godhuli), 1979; Vijay Tendulkar (Aakrosh), 1980; K. Balachander (Ek Duuje Ke Liye), 1981; Salim Javed (Shakti), 1982; Vijay Tendulkar (Ardh Satya), 1983.

Special Awards: Jaya Bhaduri (Uphaar) and Prithviraj Kapoor, 1971; V. Shantaram, 1972; Special Citation for "Anubhav", 1972; Amitabh Bachchan (Namak Haraam), Raakhee (Daag) and Rajesh Khanna (Anuraag), 1973; "Ankur" (Producers : Mohan J. Bijlani and Freni Variava), 1974; Farida Jalal (Majboor) and Priti Sagar (Julie), 1975; Yesudas (Chitchor), 1976; Bhimsain (Gharaonda). Amol Palekar (Bhumika), Naseeruddin Shah (Manthan), 1977; Child artiste Raju (Kitab), 1978; Muzaffar Ali (Gaman), 1979; Mushir-Riaz (Apne Paraye), 1980; Padmini Kolhapure (Ahista Ahista) & "36 Chowringhee Lane" (Producer: Shashi Kapoor), 1981.

Best Documentary Film: Handicrafts of Rajasthan (Clement Baptista), 1966; India 1967 (S. Sukhdev), 1967; Explorer (Pramod Patti), 1968; Then, the Rains (Ramesh Gupta), 1969; Koodal (Tyeb Mehta), 1970; Creations in Metal (Homi D. Sethna), 1971; Nine Months To Freedom (S. Sukhdev), 1972; A Day With The Builders (C. J. Paulose), 1973; The Nomad Puppeteer (Mani Kaul), 1974; Sarojini Naidu (B. D. Garga), 1975; Marvel of Memory (Dir. N. K. Issar), 1976; Transformations (Zafar Hai), 1977; They Call Me Chamar, 1980; Faces After Storm (Prakash Jha), 1981; Experience India (Zafar Hai), 1982; Veer Savarkar, 1983.

REGIONAL FILM AWARDS†

Marathi†

Maza Hoshil Ka (L. B. Thakur), 1963; Sant Nivrutti Gyandeo (Vinayak Sarasvate and Bal Chavan), 1964; Lakshmi Aali Ghara (Madhav Shinde), 1965; Gurukilli (Raja Paranjape), 1966; Pawankanthcha Dhondi (Vinayak Thakur), 1967; Ekti (G. Chaugule), 1968; Jiwhala (Atma Ram), 1969; Apradh (Sharad Pilgaonkar), 1970; Shantata! Court Chaloo Ahe (Satyadev Dubey and Govind Nihalani), 1971; Kunku Mazhe Bhagyache (Shamrao Mane), 1972; Andhala Marto Dola, 1973; 1. Sugandhi Katta (Ram Kadam & Yasin S. Farehlal), 2. Not awarded, 3. Shreeram Lagoo (Sugandhi Katta), 4. Sarala Yevlekar (Sugandhi Katta), 1974; 1. Samna (Ramdas Phutane), 2. Jabbar Patel (Samna), 3. Shreeram Lagoo (Samna), 4. Sandhya (Chandanachi Choli Ang Ang Jali), 1975; 1. Aram Haram Ahe (Kamlakar Torney), 2. Vasant Joglekar (Ha Khel Savalyancha), 3. Ravindra Mahajani (Zunj), 4. Asha Kale (Ha Khel Savalyancha), 1976; 1. Naon Mothen Lakshan Khoten (Sharad Pilgaonkar), 2. Murlidhar Kapdi (Naon Mothen Lakshan Khoten), 3. Shreeram Lagoo (Bhingree), 4. Usha Chavan (Naon Mothen Lakshan Khoten), 1977; 1. Devki Nandan Gopala (Daddy Deshmukh), 2. Jabbar Patel (Jait Re Jait), 3. Yeshwant Dutt (Bhairee Pahilwan ki Jai), 4. Smita Patil (Jait Re Jait), 1978; 1. Sinhasan (D. V. Rao & Jabbar Patel), 2. Jabbar Patel (Sinhasan), 3. Sachin (Ashtavinayak), 4. Ranjana (Sushila), 1979; 1. 22 June 1897, 2. Jayu Nachiket Patwardhan (22 June 1897), 3. Nilu Phule (Sahkar Samrat), 4. Usha Chavan (Ran Pakhare), 1980; 1. Umbartha (Jabbar Patel & D. V. Rao), 2. Jabbar Patel (Umbartha), 3. Amol Palekar (Akriet), 4. Smita Patil (Umbartha), 1981; 1. Shapit (Mahukar Roopji, Sudha Chitale & Vinay Newalkar), 2. Raj Dutt & Arvind Deshpande (Shapit), 3. Ashok Saraf (Gondhalat Gondhal), 4. Madhu Kambikar (Shapit), 1982; 1. Gupchup Gupchup (N.A.), 2. V. K. Naik (Gupchup Gupchup), 3. Ashok Saraf (Goshta Dhamal Namyachi), 4. Ranjana (Savitri), 1983.

Tamil

1. Pattikada Pattanama (P. Madhavan), 2. P. Madhavan (Gnana Oli), 3. Sivaji Ganesan (Gnana Oli), 4. Jaya Lalita (Pattikada Pattanama), 1972; 1. Bharatha Vilas (T. Bharathi), 2. A. C. Trilokchander (Bharatha Vilas), 3. Sivaji Ganesan (Gowravam), 4. Jayalalitha (Suryakanthi), 1973; 1. Dikkatra Parvathi (S. S. Rao), 2. K. Balachander (Aval Oru Thodar Kathai), 3. Gemini Ganesh (Nan Avanillai), 4. Lakshmi (Dikkatra Parvathi), 1974; 1. Apoorva Ragangal (Kalakendra Movies), 2. K. Balachander (Apoorva Ragangal), 3. Kamalahasan (Apoorva Ragangal), 4. Sujatha (Uravu Solla Oruvan), 1975; 1. Annakkili (S. P. Tamilarasi), 2. S. P. Muthuraman (Oru Oothappu Kan Simithugirathu), 3. Kamalahasan (Oru Oothappu Kan Simithugirathu), 4. Sujatha (Annakkili), 1976; 1. Bhuvana Oru Kelvikuri (N. S. Mani), 2. S. P. Muthuraman (Bhuvana Oru Kelvikuri), 3. Kamalahasan (16 Vayadhile), 4. Sujatha (Avargal), 1977; 1. Mullum Malarum (V. Mohan), 2. Bharathi Rajaa (Sigappu Rojakkal), 3. Kamalahasan (Sigappu Rojakkal), 4. Latha (Vattuthukkul Chathuram), 1978; 1. Pasi (Dorai), 2. Mahendran (Uthiripookal), 3. Shiv Kumar (Rojappu Ravikkaikari), 4. Shobha (Pasi), 1979; 1. Varumavin Niram Sigappu (R. Venkatraman), 2. K. Balagangadhar (Varumavin Niram Sigappu), 3. Sivakumar (Vandi Chakram), 4. Sarita (Vandi Chakram), 1980; 1. Thanneer Thanneer (P. R. Govindarajan & J. Doraisamy), 2. K. Balachander (Thanneer Thanneer), 3. Kamalahasan (Raja Parvai), 4. Sridevi (Meendum Kokila), 1981; 1. Engeyo Ketta Kural (N.A.), 2. Balu Mahendra (Moondram Pirai), 3. Mohan (Payanangal Mudivathillai); 4. Poornima Jayaram (Payanangal Mudivathillai), 1982.

Telugu

1. Pandanthi Kapuram (G. Hanumantha Rao), 2. K. V. Reddy (Sri Krishna Sathya), 3. N. T. Rama Rao (Badi Panthulu), 4. Jayalalitha (Sri Krishna Sathya), 1972; 1. Jeevanatarangalu (D. Rama Naidu), 2. T. Rama Rao (Jeevanatarangalu), 3. A. Nageswara Rao (Marupurani Manishi), 4. Vani Sri (Jeevanatarangalu), 1973; 1. O'Seetha Katha (Sharma), 2. K. Vishwanath (Kaidi Babai), 3. Sobhan Babu (O'Seetha Katha), 4. Vani Sri (Krishnaveni), 1974; 1. Jeevana Jyoti (D.V.S. Raju), 2. K. Vishwanath (Jeevana Jyoti), 3. Shobhan Babu (Jeevana Jyoti), 4. Vani Sri (Jeevana Jyoti), 1975; 1. Soggadu (D. Rama Naidu), 2. Bapu (Sita Kalyanam), 3. Sobhan Babu (Soggadu), 4. Jaya Sudha (Jyothi), 1976; 1. Adavi Ramudu (N. V. V. Satyanarayana & A. Suryanarayana), 2. Raghavendra Rao (Prema Lekhulu), 3. Krishnam Raju (Amara Deepam), 4. Jaya Sudha (Ame Katha), 1977; 1. Manavuri Pandavulu (Jayakrishna), 2. K. Balachander (Maro Charitra), 3. Chandra Mohan (Padharella Vayasu), 4. Rameshwari (Seetha Ma Lakshmi), 1978; 1. Gorintaaku (K. Murari), 2. Desari Narayana Rao (Gorintaaku), 3. Shobhan Babu (Karthika Deepam), 4. Sujatha (Guppidu Manasu), 1979; 1. Maa Bhoomi (B. Narsing Rao

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† Upto 1972 only best picture was given award in the case of Regional Films. Since 1972 onwards best director, best actor and best actress were also included in the award list.

Note: 1. Best picture and name of the producer, 2. best director and picture, 3. best actor and picture, and 4. best actress and picture.

& G. Ravindranath), 2. Bapu (Vamsavriksham), 3. Somayajulu (Sankarabharanam), 4. Jyoti (Vamsavriksham), 1980; 1. Sapthapathi (B. Butchi Reddy), 2. Dasari Narayana Rao (Premabhishekam), 3. Kamalahasan (Akali Rajyam), 4. Radhika (Nyayam Kavali), 1981; 1. Megha Sandesam (N. A.), 2. K. Viswanath (Subhalekha), 3. Chiranjivi (Subhalekha), 4. Jaya Sudha (Grihapravesam), 1982.

Malayalam

1. Chemparathy (S. K. Nair), 2. K. S. Sethumadhavan (Punarjanmam), 3. Madhu (Swayamvaram), 4. Shobhana (Chemparathy), 1972; 1. Panitheeratha Veedu (K. S. R. Moorthy), 2. K. S. Sethumadhavan (Panitheeratha Veedu), 3. P. J. Anthony (Nirmalyam), 4. Nandita Bose (Swapnam), 1973; 1. Nellu (N. P. Ali), 2. K. S. Sethumadhavan (Chattakari), 3. Kamalahasan (Kanya Kumari), 4. Lakshmi (Chattakari), 1974; 1. Raagam (N. P. Ali), 2. Bharatan (Prayanam), 3. Adoor Bhasi (Raagam), 4. Lakshmi (Chalanam), 1975; 1. Mohiniyattam (Mrs. Raji S. Thampi & Mrs. V. Somasekhar), 2. P. Srikumaran Thampi (Mohiniyattam), 3. Madhu, 4. Lakshmi (Mohiniyattam), 1976; 1. Itha Ivvada Varu (Hari Pothan), 2. I. V. Sasi (Itha Ivvada Varu), 3. Madhu (Yuddha Kandam), 4. Sheela (Lakshmi), 1977; 1. Rathi Nirvedham (Hari Pothan), 2. I. V. Sasi (Yeeta), 3. Kamalahasan (Yeeta), 4. Jaya Bharathi (Vada Kakku Oru Hridayam), 1978; 1. Thakara (V. V. Babu), 2. Bharatan (Thakara), 3. Pratap Pothan (Thakara), 4. Sri Vidya (Idavazhiyile Poocha Minda Poocha), 1979; 1. Chamaram (Appachan), 2. Bharathan (Chamaram), 3. Pratap Pothan (Chamaram), 4. Sri Vidya (Puzha), 1980; 1. Thrishna (Ms. Rosamma George), 2. K. S. Sethu Madhavan (Oppol), 3. Nedumudi Venu (Vidaparayum Mumbe), 4. Jalaja (Venal), 1981; 1. Eenadu (N.A.), 2. Balu Mahendra (Olangal), 3. Gopi (Ormakkayi), 4. Poornima Jayaram (Olangal).

Kannada

1. Vamsha Vriksha (G. V. Iyer), 2. B. V. Karanth and Girish Karnad (Vamsha Vriksha), 3. Venkatrao Talagiri (Vamsha Vriksha), 4. Kalpana (Yavjanmatha Maitri), 1972; 1. Nagarahavu (N. Veeraswamy), 2. S. R. Puttanna (Edakallu Guddada Mele), 3. Rajkumar (Gandhada Gudi), 4. Jayanthi (Edakallu Guddada Mele), 1973; 1. Kaadu (K. N. Narayan & G. N. Lakshmipathi), 2. Girish Karnad (Kaadu), 3. Lokesh (Bhootayyana Maga Ayyu), 4. Aarti (Upasane), 1974; 1. Chomana Dudi (Ashok Katapadia), 2. B. V. Karanth (Chomana Dudi), 3. Rajkumar (Mayura), 4. Aarti (Shubhamangala); 1975; 1. Tulasi (K. N. Subbiah), 2. G. V. Iyer (Hamsa Geethe), 3. Srinath (Besuge), 4. Jayanthi (Tulasi), 1976; 1. Tabbaliyu Neenade Magane (B. M. Venkatesh and Chandulal Jain), 2. K. S. Prakash Rao (Ganda Hendathi), 2. Manu (Tabbaliyu Neenade Magane), 4. Manjula (Deepe), 1977; 1. Ondanondu Kaladalli (Girish Karnad), 2. Girish Karnad (Ondanondu Kaladalli), 3. Rajkumar (Shankar Guru), 4. Shobha (Aparachita), 1978; 1. Dharmasere (Arathi), 2. Puttanna Kanagal (Dharmasere), 3. Anant Nag (Naa Ninna Biadalare), 4. Arathi (Dharmasere), 1979; 1. Ellindalo Bandavaru (Mohan Kumar Kondaji), 2. Shankar Nag (Minchina Ota), 3. Lokesh (Ellindalo Bandavaru), 4. Ashwini (Savitri), 1980; 1. Ranganayaki (B. Timmanna), 2. Puttanna Kanagal (Ranganayaki), 3. Rajkumar (Keralida Simha), 4. Arathi (Ranganayaki), 1981; 1. Bara (N.A.), 2. M. S. Sathyu (Bara), 3. Anant Nag (Bara), 4. Sarita (Hosa Belaku).

Bengali

Mahanagar (R. D. Bansal), 1963; Charulata (R. D. Bansal), 1964; Atithi (S. N. Sircar), 1965; Balika Bodhu (Sunila Devi). 1966; Haatey Bazarey (Ashim Dutta), 1967; Apanjan (R. N. Malhotra), 1968; Kamal Lata (Niren Sil), 1969; Pratidvandi (Nepal Dutta and Ashim Dutta), 1970; Nimantran (Bharat Shumsher Jung Bahadur Rana), 1971; Mem Saheb (Ashima Bhattacharjee), 1972; Strir Patra, 1973; 1. Amanush (Shakti Samanta), 2. Pijush Bose (Bikaloy Bhorer Phool), 3. Uttam Kumar (Amanush), 4. Aparna Sen (Sujata), 1974; 1. Sansar Simante (Subir Ghosh), 2. Satyajit Ray (Sonar Kella), 3. Soumitra Chatterjee (Sansar Simante), 4. Suchitra Sen (Priya Bandhabi), 1975; 1. Jana Aranya (Subir Guha), 2. Satyajit Ray (Jana Aranya), 3. Pradeep Mukherjee (Jana Aranya), 4. Aparna Sen (Asamaya), 1976; Ek Je Chhilo Desh (Raj Kapoor), 2. Ritwick Ghatak (Jukti Takko Aar Gappo), 3. Soumitra Chatterjee (Babu Moshai), 4. Supriya Devi (Sister), 1977; 1. Debabrata Sarkar (Baarbodhu), 2. Bijoy Chatterjee (Baarbodhu), 3. Uttam Kumar (Dhanraj Tamang), 4. Gita Siddarth (Baarbodhu), 1978; 1. Ganadevta (Dept. of Cultural Affairs, Govt. of W. Bengal), 2. Satyajit Ray (Joy Baba Felunath), 3. Soumitra Chatterjee (Ganadevta), 4. Sandhya Roy (Ganadevta), 1979; 1. Banchharamer Bagan, 2. Tapan Sinha (Banchharamer Bagan), 3. Manoj Mitra (Banchharamer Bagan), 4. Mahua Roy Chaudhury (Dadar Kirti), 1980; 1. Dooratwa (Budhdev Dasgupta), 2. Budhdev Dasgupta (Dooratwa), 3. Tapas Paul (Saheb), 4. Sumitra Mukherjee (Baisakhi Megh), 1981; 1. Kharij (Bishwanath Agarwal & Sabyasachi Chakravarty), 2. Mrinal Sen (Aakaler Sandhane), 3. Dhritiman Chatterjee (Aakaler Sandhane), 4. Aparna Sen (Bijoyini), 1982; 1. Chokh (N.A.), 2. Utpalendu Chakraborty (Chokh), 3. Sumitra Chatterjee (Agradani); 4. Aparna Sen (Indira), 1983.

CRITICS AWARD: Uski Roti (Mani Kaul), 1970; Ashad Ka Ek Din (Mani Kaul), 1971; Maya Darpan (Kumar Shahani), 1972; Duvidha (Mani Kaul), 1973; Rajnigandha (Basu Chatterji), 1974; Aandhi (Gulzar), 1975; Mrigaya (Mrinal Sen), 1976; Satyajit Ray (Shatranj Ke Khilari), 1977; Arvind Desai ki Ajeeb Dastan (Saeed Mirza), 1978; Basu Chatterji (Jeena Yahan), 1979; Ashok Ahuja (Aadharshila), and "36 Chowringhee Lane" (Shashi Kapoor), 1981; Masoom (Shekhar Kapur), 1982; M. S. Sathyu (Sookha), 1983.

NOBEL PRIZE AWARDS

Physics : W. C. Roentgan (G) (1901); H. A. Lorentz (D), P. Zeeman (D) (1902), H. Bequerel (F), P. Curie (F), Marie Curie (F) (1903); Lord J. W. S. Rayleigh (B) (1904); P. Lenard (G) (1905); J. J. Thomson (B) (1906); A. A. Michelson (A) (1907); G. Lippmann (I) (1908); F. Braun (G), G. Marconi (I) (1909); J. D. Vander Waals (D) (1910); W. Wien (G) (1911); G. Dalen (S) (1912); H. Kamerlingh Onnes (D) (1913); M. V. Laue (G) (1914); W. H. Bragg (B), W. L. Bragg (B) (1915);—(1916); C. G. Barkia (B) (1917); M. Planck (G) (1918); J. Stark (G) (1919); C. E. Guillaume (F) (1920); A. Einstein (G) (1921); N. Bohr (Da) (1922); R. A. Millikan (A) (1923); M. Seegbahn (S) (1924); J. Franck (G), G. Hertz (G) (1925); J. Perrin (J) (1926); A. H. Compton (A), C. T. R. Wilson (B) (1927); O. W. Richardson (B) (1928); L. de Broglie (F) (1929); C. V. Raman (In) (1930);—(1931); W. Heisenberg (G) (1932); P. A. M. Dirac (B), E. Schroedinger (Au) (1933);—(1934); J. Chadwick (B), (1935); V. F. Hess (Au.), C. D. Anderson (A) (1936); C. J. Davisson (A), G. P. Thomson (B) (1937); E. Fermi (I) (1938); E. O. Lawrence (A) (1939); 1940 to 1942 (no awards); O. Stern (A) (1943); I. I. Rabi (A) (1944); W. Pauli (Au) (1945); P. W. Bridgman (A) (1946); Sir Edward Appleton (B) (1947); P. M. S. Blackett (B), (1948); H. Yukawa (J) (1949); Cecil F. Powell (B) (1950); Sir J. Cockcroft (B) E. T. S. Walton (In) (1951); E. Purcell (A), P. Bloch (A) (1952); F. Zernike (D) (1953); M. Born (B), W. Bothe (G) (1954); W. E. Lamb (A), P. Kusch (A) (1955); W. Shockley (A), J. Bardeen (A), W. H. Brattain (A) (1956); T. Dao-ee (Chi), C. Ning Yang (Chi) (1957); P. A. Corenkov (R), I. M. Frank (R), L. Tamm (R) (1958); E. Segre (A), O. Chamberlain (A) (1959); D. A. Glasser (A) (1960); R. Hofstadtar (A), R. Mossbauer (G) (1961); L. Davidovich Landau (R) (1962); Engene P. Wigner, Maria Geoppoert Mayer, Hans D. Jensen (1963); Charles Towns, Nikolai Basov, Alexander Prochorov (1964); Julian Schwingar, Richard Feynman, Shinichero Tomonaga (1965); Alfred Kastler (1966); Hans Albert Bethe (A) (1967); Louis W. Alvarez (A) (1968); Prof. Murray Gell-Mann (A) (1969); Prof. Manlouis Neel (F), Prof. Hannes Alfven (Sw) (1970); Dr. Dennis Gabor (B) (1971); Prof. John Bardeen (A), Prof. John Schrieffer (A), Prof. Leon Cooper (A) (1972); Dr. Leo Esaki (A), Dr. Ivar Gisevar (A), Dr. Brian D.

Note: 1. Best picture and name of the producer, 2. best director and picture, 3. best actor and picture, and 4. best actress and picture.

A — American; Ar — Argentine; Au — Austrian; Aus — Australian; B — British; Be -- Belgian; C — Canadian; Ch — Chilean; Chi — Chinese; Cz — Czech; D— Dutch; Da — Danish; E — Egypt; F — French; Fi — Finnish; G — German; Gr — Greek; H — Hungarian; I — Italian; Ic — Icelandic; In — Indian; Ir — Irish; Is— Israel; J — Japanese; Lux — Luxembourg; N — Norwegian; N.V. — North Vietnam; P — Polish; Pk — Pakistan; Po — Portuguese; R — Russian; Ru — Rumanian; S — Swedish; S.A. — South African; Sp — Spanish; Sw — Swiss; W.I. — West Indies; **Y** — Yugoslav.

Note. N.A. — Not awarded.

Josephson (E) (1973); Prof. Martin Ryle (B), Prof. Antony Hewish (B) (1974); Prof. James Rainwater (A), Prof. Aage Bohr (Da), Prof. Ben Mottelson (Da) (1975); Prof. Gurton Richer (A), Prof. Samuel C. C. Ting (A) (1976); Philipp W. Anderson (A), Sir Novell F. Mott (B), John H. Van Vleck (A) (1977); Prof. Pyotr Kapitsa (R) (half the prize and another half was shared by Dr. Amo Penzas (A) and Dr. Robert Wilson (A) (1978); Prof. Sheldon S. Glashow (A), Prof. Steven Weinberg (A), Prof. Abdus Salam (Pk) (1979); Prof. James W. Cronin (A), Prof. Val L. Fitch (A), (1980); Nicolaas Bloembergen (A), Arthur Schawlow (A), Kai Siegbahn (S), (1981); Kenneth G. Wilson (A) (1982); Subrahmanyam Chandrasekhar (A), William Fowler (A) (1983).

Chemistry : J. H. Van't Hoff (D) (1901); E. Fischer (G) (1902); S. Arhenius (S) (1903); W. Ramsay (B) (1904); A. V. Baeyer (G) (1905); H. Moissan (F) (1906); E. Buchner (G) (1907); E. Rutherford (B) (1908); V. Ostwald (G) (1909); O. Wallach (G) (1910); Marie Curie (F) (1911); V. Grignard (F), P. Sabatier (F) (1912); A. Werner (Sw) (1913); T. W. Richards (A) (1914); R. Willetaetter (G) (1915);—(1916);—(1917); F. Haber (G) (1918):—(1919); W. Nernst (G) (1920); F. Soddy (B) (1921); F. W. Aston (B) (1922); F. Pregi (Au) (1923);—(1924); R. Zsigmondv (G) (1925); T. Svedberg (S) (1926); H. Wieland (G) (1927); A. Windaus (1928); H. V. Eueler-Chelpin (S), A. Harden (B) (1929); H. Fischer (G) (1930); P. Bergins (G), K. Bosch (G) (1931); I. Langmuir (A) (1932);—(1933); H. C. Urey (A) (1934); F. Joliot-Curie (I), I. Joliot Curie (I) (1935); P. Debye (D) (1936); W. N. Haworth (B), P. Karrer (Sw) (1937); R. Kuhn (G) (1938); A.P. Butenandt (G), L. Ruzicka (Sw) (1939); 1940 to 1942 (no awards); G. Hevsey (H) (1943); O. Hahn (G) (1944); A. Virtanen (Fi) (1945); J. B. Sumner (A), J. H. Northrop (A), W. M. Stanley (A) (1946); Sir Robert Robinson (B) (1947); A. Tiselius (S), (1948); W. F. Giauque (A) (1949); Otto Diels (G), K. Alder (G) (1950); E. M. MacMillan (A), G. T. Seaborg (A) (1951); A. J. P. Martin (B), R. L. M. Synge (B) (1952); H. Staudinger (G) (1953); L. Pauling (A) (1954); Vincent du Vigneaud (A) (1955); Sir Cyril Hinshelwood (B), N. Semonov (R) (1956); Sir Alexander Todd (B) (1957); F. Sanger (B) (1958); J. Heyrovsky (Cz) (1959); W. F. Libby (A) (1960); M. Calvin (1961); M. F. I.Perutz (B), J. C. Kendreu (B) (1962); Prof. Karl Ziegler, Guilio Natta (I) (1963); Dorothy Crow Hodgkin (1964); Robert Burns Woodward (1965); Robert S. Mulliken (1966); Manfred Eigen (G), Ronald G. W. Norrish (B), George Porter (B) (1967); Lars Onsager (A) (1968); D. H. Barton (B), O. Hassal (N) (1969); Prof. Luis Leloir (Ar) (1970); Dr. Gerhard Herzberg (C) (1971); Dr. Christian B. Anfinsen (A), Dr. Stanford Moore (A), Dr. William H. Stein (A) (1972); Dr. Fischer (G), Dr. Wilkinson (B) (1973); Prof. Paul J. Flory (A) (1974); Prof. John Warcup Cornforth (Br), Prof. Vladimir Prelog (Sw) (1975); Prof. William Lipscomb (A) (1976); Prof. Ilya Prigogine (Be) (1977); Dr. Peter Mitchell (B) (1978); Prof. Herbert C. Brown (A), Prof. Geor Witting (G) (1979); Prof. Paul Berg (A), Prof. Walter Gilbert (A), Prof. Frederick Sanger (B) (1980); Prof. Kenichi Fukui (J), Prof, Raols Hoffmann (A) (1981); Aaron Klug (B) (1982); Prof. Henry Taube (C) (1983).

Physiology & Medicine : E. V. Behring (G) (1901); R. Ross (B) (1902); N. R. Finsen (Da) (1903); I. P. Pavlov (R) (1904); R. Koch (G) (1905); C. Golgi (I), S. R. Y. Cajal (Sp) (1906); C. L. A. Laveran (F) (1907); P. Ehrlich (G), E. Metchnikoff (R) (1908); T. Kocher (Sw) (1909); A. Kossel (G) (1910); A. Gullstrand (S) (1911); A. Carrel (A) (1912); C. Richet (F) (1913); R. Barany (Au) (1914);—(1915);—(1916);—(1917);—(1918); J. Bordet (Be) (1919); A. Krogh (Da) (1920);—(1921); A. Hill (B), O. Meyerhof (G) (1922); F. G. Banting (C), J. R. Macleod (C) (1923); W. E. Einthoven (D) (1924);—(1925); J. Fibiger (Da) (1926); J. Wagner-Jauregg (Au) (1927); C. Nicolle (F) (1928); C. Eijkman (D), F. G. Hopkins (B), (1929); K. Landsteiner (Au) (1930); O. Warburg (G) (1931); C. S. Sherrington (B) E. D. Adrian (B) (1932); T. H. Morgan (A) (1933); G. Minot (A), W. Murphy (A), G. Whipple (A) (1934); H. Spemann (G) (1935); Sir H. H. Dale (B), O. Loewi (G) (1936); A. V. Szent-Gyorgyl (H) (1937); C. Heymans (Be) (1938); G. Domagk (G) (1939); 1940 to 1942 (no awards); H. Dam (Da), F. A. Doisy (A) (1943); E. J. Erianger (A), H. S. Gasser (A) (1944); Sir A. Fleming (B), Sir H. Florey (B), E. B. Chain (B) (1945); H. J. Muller (A) (1946); B. A. Houssay (Ar), C. F. Cori (A), G. T. Cori (A) (1947); P. Muller (Sw) (1948); W. R. Hess (Sw), A. F. Moniz (Po) (1949); E. C. Kendall (A), P. S. Hench (A), R. Reichstein (Sw) (1950); M. Theiler (A) (1951); S. Waksman (A) (1952); H. A. Krebs (B), F. A. Lipmann (A) (1953); J. F. Enders (A), F. C. Robins (A), T. H. Weller (A) (1954); Hugo Theorell (S) (1955); A. F. Cournaud (A), D. W. Richards (A), W. Forssmann (G) (1956); D. Bovet (I) (1957); G. W. Beadle (A), E. L. Tatum (A), J. Lederberg (A) (1958); S. Ochoa (A), A. Kornberg (A) (1959); P. B. Medawar (B), Sir M. Burnet (Aus) (1960); G. von Brekesy (H) (1961); F. H. C. Crick (B), M. H. F. Wilkins (B), J. D. Watson (A) (1962); Sir John Carow Eccles, Allan Lloyd Hodgkin, Andrew Fielding Huxley (1963); Konard Bloch, Feodor Lynen (1964); Jacques Monod, Francois Jacob, Andra Lwoff (1965); Peyton Rous, Charles B. Huggins (1966); Haldan Keffer Hartline (A), George Wald (A), Ragnar Granit (Swe) (1967); Robert W. Holley, H. Gobind Khorana, Marshall W. Nirenberg (all American) (1968); Dr. Max Delbrueck, Dr. Alfred Hershey, Dr. Salvador Luria (all American) (1969); Sir Bernar Katz (B); Dr. Ulfvon Euler (Sw), Dr. Julius Axelord (A) (1970); Dr. Earl Wilbur Sutherland (A) (1971); Dr. G. M. Edelman (A), Dr. R. Porter (B) (1972); Prof. Karl von Frisch (Au), Dr. Konard Lorenz (Au), Prof. Nikolaas Tinbergen (D) (1973); Dr. Albert Claude (Lux), Dr. Christian De Duve (B), Dr. George Palade (Ru) (1974); Dr. David Baltimore (A), Dr. Martin Temin (A), Dr. Renato Dulbecco (A) (1975); Baruch S. Blumberg (A), D. Carleton Gajdusek (A) (1976); Dr. Roger Guillemin (A), Dr. Andrew Shally (A) & Dr. Rosalyn Yalow (A) (1977); Prof. Werner Arber (S), Daniel Nathans (A), Hamilton O. Smith (A) (1978); Allan M. Carmack (A), Godfrey N. Hounsfield (B) (1979); Prof. Baruj Benaceraf (A), Prof. George Snell (A), Prof. Jean d'Ausset (F) (1980); Dr. Robert Sperry (A), Prof. David Hubel (A), Torstenn Wiesel (A) (1981); Sune Bergstroem (S), Bengt Samuelsson (S), John Vane (B) (1982), Dr. Barbara Mc Clintock (A) (1983).

Literature: B. F. A. Sully Prudhomme (F) (1901); T. Mommsen (G) (1902); B. Bjornson (N) (1903); F. Mistral (F), Echegaray (Sp) (1904); H. Sieukiewic (P) (1905); G. Carducci (I) (1906); Rudyard Kipling (B) (1907); R. Eucken (G) (1908); S. Lageriof (S) (1909); P. Heyse (G) (1910); N. Maeterlinck (Be) (1911); G. Hauptmann (G) (1912); R. Tagore (In) (1913); —(1914); R. Rolland (F) (1915); V. Von Heidenstam (S) (1916); K. Gjellerup (Da), H. Pontoppidan (Da) (1917);—(1918); C. Spitteler (Sw) (1919); K. Hamsum (N) (1920); A. France (I) (1921); J. Benavente (Sp) (1922); W. B. Yeats (Ir) (1923); W. Reymont (P) (1924); G. B. Shaw (B) (1925); G. Deledda (I) (1926); H. Bergson (F) (1927); S. Undset (N) (1928); T. Mann (G) (1929); S. Lewis (A) (1930); E. A. Karifeldt (S) (1931); J. Galsworthy (B) (1932); Bunin (R) (1933); L. Pirandello (I) (1934); —(1935); E. O'Neill (A) (1936); R. Martin du Gard (F) (1937); Pearl S. Buck (A) (1938); F. E. Sillanpaa (Fi) (1939); 1940 to 1942 (no awards); — (1943); J. V. Jensen (Da) (1944); G. Mistral (1945); H. Hesse (Sw) (1946); Andre Gide (F) (1947); T. S. Eliot (B) (1948); W. Faulkner (A) (1949); Lord Russel (B) (1950); P. Lageirkvist (S) (1951); F. Maurisac (F) (1952); Sir W. S. Churchill (B) (1953); E. Hemingway (A) (1954); Halldor Laxness (Ic) (1955); J. Ramon Jimenez (Sp) (1956); A. Camus (F) (1957); B. Pasternak (R) (1958); S. Quasimode (I) (1959); A. St. Leger (F) (1960); J. Steinbeck (A) (1961); I. Andric (Y), J. Steinbeck (A) (1962); Giorgos Stylia nos Sefariads (1963);—(1964); Mikhail Sholokhov (1965); Samuel Joseph Agnon, Miss Nelly Sachs (1966); Miguel Angel Austurias (Greek) (1967); Yasunari Kawabata (J) (1968); Samuel Becket (Ir) (1969); Alexander Solzhenitsyn (R) (1970); Pablo Neruda (Ch) (1971); Heinrich Boell (G) (1972); Patrick White (Aus) (1973); Eyvind Johnson (Sw), Harry Martinson (Sw) (1974); Poet Eugenio Montale (I) (1975); Saul Bellow (A) (1976); Vicente Aleixandre

(Sp) (1977); Isaac B. Singer (A) (1978); Odysseus Elytis (Gr) (1979); Czeslaw Milosz (P) (1980); Elias Canetti (B) (1981); Gabriel Garcia Marquez (Colombia (1982); William Golding (B) (1983).

Peace : H. Dunant (Sw), F. Passy (F) (1901); E. Ducommun (Sw), A. Gobat (Sw) (1902); Sir W. R. Cremer (B) (1903); Institut de Droit International (1904); Bertha von Suttner (Au) (1905); T. Roosevelt (A) (1906); E. T. Moneta (I), L. Renault (F) (1907); K. P. Arnoldson (S), P. Bajer (Da) (1908); A. M. F. Beernaert (Be), Baron de Estournelles de Constant de Rebecque (F) (1909); The Bureau International Permanent De la Paix, Berne (1910); T. M. C. Asser (D), A. H. Fried (Au) (1911); E. Root (A) (1912); H. La Fontaine (Be) (1913);—(1914);—(1915);—(1916); Comite International de la Croix Rouge, Geneva (1917);—(1918); W. Wilson (A) (1919); L. Bourgeois (F) (1920); K. H. Branting (S), C. L. Lange (N) (1921); F. Nansen (N) (1922); — (1923); — (1924); Sir A. Chamberlain (B), C. G. Dawes (A) (1925); A. Briand (F), G. Stresemann (G) (1926); F. Buisson (F), L. Quidde (G) (1927); — (1928); F. B. Kellogg (A) (1929); L. O. J. Soderblom (S) (1930); Jane Addams (A), N. M. Butler (A) (1931); — (1932); Sir Norman Angell (B) (1933); Arthur Henderson (B) (1934); C. Von Ossietzky (G) (1935); C. de S. Lamas (Ar) (1936); Viscount Cecil of Chilwood (B) (1937); Office International Nansenpour les Refugies (1938);—(1939); 1940 to 1942 (no awards);—(1943); Comite International de la Croix Rouge, Geneva (1944); Cordell Hull (A) (1945); Emily G. Balch (A), J. R. Mott (A) (1946); American & British Quaker Organisations (1947); — (1948); Lord Boyd-Orr (B) (1949); Ralph Bunche (A) (1950); Leon Jouhaux (F) (1951); A. Schweitzer (F) (1952); Gen. G. Marshall (A) (1953); U.N. High Commission for Refugees (1954); — (1955); — (1956); L. B. Pearson (C) (1957); Father George Pire (Be) (1958); P. J. Noel-Baker (B) (1959); A. Luthuli (S.A.) (1960); D. Hammarskjold (S) (1961); L. C. Phuling (A) (1962); International Red Cross and League of Red Cross Societies (1963); Martin Luther King (1964); UNICEF (1965); — (1966); — (1967); Bene Cassin (Fr) (1968); International Labour Organisation (1969); Norman Earnest Borlaug (A) (1970); Willy Brandt (W.G.) (1971); Dr. Henry Kissinger (A), Lee Duc Tho (N.V.) (1973); Eisoku Sato (J), Sean McBride (Ir) (1974); Dr. Andrei Dimitrievich Sakharov (Ru) (1975); Betty Williams, Mairead Corrigan and Claran Mekeown (Ir) (1976); Amnesty International (1977); Pres. Anwar Sadat (E) and Menachem Begin (Is) (1978); Mother Teresa (In) (1979); Adolf Perez Esquivel (Ar) (1980); Mrs. Alva Myrdal (S), Alfonso Garcia Robles (Mexico) (1982); Lech Walesa (P) (1983).

Economics: Prof. Jan Tinbergen (Dutch) (1969); Prof. Paul A. Samulson (A) (1970); Dr. Simon Kuznets (U.S.A.) (1971); Prof. John R. Hicks (B), Prof. Kenneth J. Arrow (A) (1972); Prof. Wassily Leontief (R) (1973); Prof. Gunner Myrdal (Sw), Friedrich Von Hayek (Br) (1974); Dr. Tjalling Roopmans (A), Dr. Leonid Kantorovich (Ru) (1975); Prof. Milton Friedman (A) (1976); Prof. Bertil Ohlin (S), Prof. James Meade (B) (1977); Prof. Herbert A. Simon (A) (1978); Prof. Theodore Schultz (A), Sir Arthur Lewis (W.I.) (1979); Lawrence Klein (A) (1980); Prof. James Tobin (A) (1981); Prof. George Stigler (A) (1982); Gerard Debreu (A) (1983).

MAGSAYSAY AWARDS

1981: Dr. Prawesi Wasi (Thailand), *Government Service;* Pramod Karan Sethi (India), *Community Leadership;* Mrs. A. H. Nasution (Indonesia), *Public Service;* Augustine Jung Ryul Kang (South Korea), *International Understanding;* Gour Kishore Ghosh (India), *Courage in Defence of Individual and Press Freedom.*

1982: Arturo P. Alcaraz (Philippine), *Government Service;* Chandi Prasad Bhatt (India), *Community Leadership;* Manibhai Bhimbai Desai (India), *Public Service;* Arun Shourie (India), *Journalism, Literature and Creative Communication Arts.*

1983: Rev. Aloysius Schwartz (America), *International Understanding;* Fua Hariphitak (Thailand), *Public Service;* Mayor su Nan-Cheng (Taiwan), *Government Service;* Rev. Marcelline Jayekody (Sri Lanka), *Journalism, Literature and Creative Communication Arts;* Anton Soedjarwo (Indonesia); *Community Leadership.*

(See also 'Late Particulars')

RESEARCH

SCIENTIFIC research is gathering momentum in different disciplines in different parts of the country. It is being carried out under the auspices of the Central and State Governments. Several private organisations, including industry, are also doing private research.

In the industrial field too, scientific research has come to play an important part in the improvement of goods.

The Central Government has offered several incentives to promote research.

EXPENDITURE: In 1950-51 the country spent Rs. 47 million on research and development. By 1980-81 it had gone up to Rs. 7,260 million. The total allocation in the Sixth Five Year Plan (1980-85) for scientific and technological activities (both plan and non-plan) is Rs. 33,970 million. This, however, does not include investments on research and development by private organisations including industry.

NATIONAL RESEARCH DEVELOPMENT CORPORATION OF INDIA: 20-22, Zamroodpur Community Centre, Kailash Colony Extn., New Delhi 110048.

Main Functions

To transfer technology and licence know-how developed at the R. & D. organisations in the country; to encourage inventive talent and to develop and promote utilisation of Indian technology abroad; to finance pilot plants/demonstration units and making of prototypes and to fill technological gaps in the country by promoting developmental projects in collaboration with industry.

Publications

NRDC Processes (English, Half-Yearly); *Invention Intelligence* (English Monthly); *Awishkar* (Hindi Monthly); *Gram Shilp* (Hindi Quarterly) and *CTT Digest* (English Quarterly).

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH: Rafi Marg, New Delhi 110001.

CSIR functions as a part of the Deptt. of Science and Technology. There are 40 research establishments, which include national laboratories and two information centres. In addition, there are constituent technical divns. at the Hqrs., viz., Dn. for Scientific and Technical Manpower, Technology Utilisation Dn., Planning Dn, Extramural Research Dn., Intnl. Scientific Collaboration Dn. and Public Relations Unit.

National Register maintained by the Dn. for Scientific & Technical Personnel, CSIR, is a clearing house of information regarding availability and utilisation of Indian scientists, engineers, technologists, medical personnel and social scientists in India and abroad.

NATIONAL LABORATORIES/INSTITUTES

Aeronautical Laboratory, National, *P.O. Bag No. 1779, Bangalore 560017*—Scientific investigations into the problems of flight and their practical application to design, construction and operation of flight vehicles in India.

Botanical Research Instt., National, *Rana Pratap Marg, Lucknow 226001*—Primarily concerned with agro-botany and utilisation of non-agricultural/non-traditional economic plants, and with discovering new vegetable raw materials of industrial value.

Building Research Institute, Central (CSIR), *Roorkee* 247672, *U.P.*—Undertakes applied research on planning, foundation, materials, design, construction and fire safety aspects of bldgs. for achieving functional efficiency, speed, economy and productivity in bldg. construction. The Instt. has six extension centres at Delhi, Bhopal, Ahmedabad, Calcutta, Hyderabad and Trivandrum.

Cellular & Molecular Biology Centre, *Hyderabad 500007*—Set up by CSIR, it is already recognised as one of the premier research insttns. around the world in modern biology. It is playing an important role in the devpt. of both basic biology and biotechnology in the country. When completed, it would house sophisticated laboratory facilities for modern scientific work.

Chemical Biology, Indian Institute of, *4, Raja Subodh Chandra Mullick Rd., Calcutta 700032*—Research on basic and applied sciences on current biological and medical needs of the country.

Chemical Laboratory, National, *Pune* 411008—Fundamental and applied research in the field of Chemistry and Chemical Technology. Undertakes contractual research.

Fields of Specialisation: Catalysis and catalytic reaction, engg., drugs and drug intermediates, biotechnology, equipment design and devpt., fluidisation, materials science, pest control agents, plant tissue culture, polymer science and engg., polymer synthesis and modification.

Cultural Property, National Research Laboratory for Conservation of, *C-257, Niralanagar, Lucknow 226007*—Conducts research for technical study and conservation of objects of art, archaeology, ethnology, library, etc. It also assists in setting up of laboratories and giving technical advice to any laboratory relating to conservation of arts. Conducts trg. in conservation of cultural property. Has with it specialised library with 4,700 vols., and subscribes to 67 journals.

Drug Research Institute, Central, *Chattar Manzil Palace, P.O. Box 173, Lucknow 226001*—All aspects of drug research including evaluation and standardisation of crude drugs, discovery of substitutes for pharmacopoeial drugs and plants, pharmaceutical and synthetic chemicals, biochemistry and biophysics, infection, immunisation, pharmacology, chemotherapy and experimental medicine.

Electro-Chemical Research Institute, Central, *Karaikudi 623006, Tamil Nadu*—Research on different aspects of electrochemical science and technology. The institute has two extension centres at Madras and Cochin and a corrosion testing laboratory at Mandapam Camp.

Electronics Engineering Research Institute, Central, *Pilani 333031, Rajasthan*—Research, design and development work in the area of *(i)* vacuum tubes, *(ii)* semi-conductor devices, *(iii)* electronic equipment, control systems, *(iv)* communication systems, *(v)* audio systems.

Environmental Engineering Research Institute (NEERI), National, *Nehru Marg, Nagpur 440020.* Formerly known as Central Public Health Engg. Research Instt., it has zonal laboratories at Ahmedabad, Bombay, Calcutta, Cochin, Delhi, Hyderabad, Jaipur, Kanpur and Madras.

Food Technological Research Institute, Central, *Cheluvamba Mansion*, 570013 — R. & D. in post-harvest technology for conservation of food resources and to promote food industries. To develop nutritious foods; to provide assistance to industry and new entrepreneurs. Serves as an international trg. centre in food science and technology and also as an Associated Insttn. of the U.N. Univ. for advanced trg. & research in post-harvest conservation, preservation & processing of food. Its library functions as the National Information Centre for Food Science and Technology, offering a variety of information services. An international school of Milling Technology geared to developing countries has just been established as a joint Indo-Swiss venture.

Fuel Research Institute, Central *(CSIR), P.O.: F.R.I.* 828108, *Dhanbad Dist., Bihar*—Fundamental and applied research on fuels, coal and lignite. Physical and chemical surveys of coals are done by its seven coal survey laboratories.

Geophysical Research Institute, National, *Uppal Rd., Hyderabad 500007*—Fundamental & applied research in Geophysics; studies on Lithosphere, Environment, Systems & Software Development; exploration of Minerals (coal, oil & groundwater), Engg. Geophysics, Theoretical/Modelling & Instrumentation Development.

Glass and Ceramic Research Institute, Central, *Jadavpur University P.O., Calcutta* 700032 — Applied research on glass, pottery, refractories, vitreous enamels and mica; evaluation and utilisation of indigenous raw materials, import substitution, development of new processes and products, improvement in quality of industrial products, standardisation, etc.; undertakes investigation sponsored by industry and operates pilot plant for the production of optical glass. The Institute has established its two extension centres, *(i)* at the Naroda Indl. Estate on the outskirts of Ahmedabad & *(ii)* at Khurja (U.P.). *Director:* Dr. S. Kumar.

Leather Research Institute, Central, *Adyar, Madras* 600020 — Fundamental and applied aspects of leather technology and allied fields like footwear, leather goods and auxiliaries, and machinery for these industries; technology transfer, techno-economic survey, consultancy, trg., promotional activities & information services in these fields.

Mechanical Engineering Research Institute, Central, *Mahatma Gandhi Ave., Durgapur* 713209, *W. Bengal* — Conducts research and devpt. in all aspects of mechanical engg. It maintains Mechanical Engineering Research and Development Orgn. Centres at Ludhiana, Pune, Madras, Durgapur and Cochin and a liaison office at Calcutta.

Medicinal & Aromatic Plants, Central Institute of, *Post Box No. 1, Ram Sagar, Misra Nagar, Lucknow* 226016 — Devpt., cultivation & processing of medicinal and aromatic plants. It has Regnl. Centres at Bangalore, Pantnagar (U.P.), Jammu & Kashmir, Kodaikanal & Darjeeling and a commercial unit consisting of farms & factories in Jammu & Kashmir. One demonstration farm has started functioning at Boduppal (A.P.).

Metallurgical Laboratory, National, *Jamshedpur* 831007, *Bihar* — Fundamental and applied metallurgical research. It maintains six field stations in Punjab, Tamil Nadu, Gujarat and West Bengal.

Mining Research Station, Central, *Barwa Rd., Dhanbad* 826001, *Bihar* — To assess the technical needs of the mining industry and to study the feasibility of new methods and techniques; to devise means of improving the standards of safety, health and efficiency in mining industry; to develop new machines, methods and practices as required and to suggest import substitutes, etc. etc.

Oceanography, National Institute of, *Dona Paula* 403004, *Goa* — Research on physical, chemical, biological, geological, geophysical, pollution, instrumentation & engg. aspects of oceanography including prospecting for petroleum, minerals, organic chemicals & food from the sea. The Institute has regional centres at Bombay, Cochin and Waltair and an Indian National Oceanographic Data and Information Centre at the headquarters.

Petroleum, Indian Institute of *(CSIR), P.O.: I.I.P., Dehra Dun* 248005 — Research in petroleum refining and processing of natural gas, petrochemicals, demand surveys on petroleum products, process design, devpt. of alternate fuels and the training of personnel.

Physical Laboratory, National, *Hillside Rd., New Delhi* 110012 — Custody, development, maintenance & updating of the national standards of physical measurements, with facilities for calibration, evaluation and developmental & type testing against specifications; research in fundamental and applied physics; development of physics-oriented technologies.

Research Laboratory, Regional, *Bhubaneswar* 751013, *Orissa* — Research and developmental work on minerals, metals, chemicals, forest and marine products with major emphasis in the area of minerals and metals, leading to development of new processes and products for setting up industries; undertaking projects on sponsored/collaborative basis including setting up of pilot plants, engineering consultancy and preparation of feasibility reports for commercial exploitation.

Research Laboratory, Regional, *Hyderabad* 500009 — General research & testing facilities.

Research Laboratory, Regional, *Canal Rd., Jammu Tawi* 180001, *Jammu & Kashmir* — Research on the utilisation of plant, animal and mineral resources and their waste products; development of drugs, fermentation products and phytochemicals.

Research Laboratory, Regional, *Jorhat* 785006, *Assam* — R. & D. work relating to efficient utilisation of important natural resources of N. Eastern Regn. as well as development of processes having national importance.

Road Research Institute, Central *(CSIR), Mathura Rd., P.O.: CRRI, New Delhi 110020* — Research in highway, bridge & traffic engg.

Salt & Marine Chemicals Research Institute, Central, *G. Badheka Marg, Bhavnagar* 364002, *Gujarat* — Research & devpt. work on solar salt, marine & inorganic chemicals, corrosion, co-ordn., bio-inorganic chemistry & homogenous catalysis by metal complexes, seaweed studies & utilisation, phytosalinity, desalination of sea/brackish water, reverse osmosis, ion exchange & electrodialysis, utilisation of solar & wind energy for different applications.

Scientific Instruments Organisation, Central, *Sector 30, Chandigarh* 160020 — Design and development of scientific instruments for teaching, research and industry with service centres in New Delhi, Madras, Calcutta, Bombay, Lucknow, Hyderabad, Chandigarh, Cochin and Jaipur.

Structural Engineering Research Centre, *Roorkee* 247667, *Uttar Pradesh* — Research in specialised design and development work in the field of high-rise bldgs., large span structures, tunnelling, and underground structures. Develops computer software for civil engg. applications. Provides design consultancy services in civil engg.

Toxicology Research Centre, Industrial, *M. Gandhi Marg, Post Box 80, Lucknow 226001*—To identify health hazards to which industrial and agricultural workers are exposed in their working environment; to conduct experimental studies on the mode of action of environmental pollutants & tissue injury evoked by them; to develop suitable diagnostic tests & suggest remedial and preventive measures; to delineate the adverse effects on man of low-dose long term exposure to toxic chemicals; to develop preventive & therapeutic measures against harmful effects of chemicals; to develop capabilities to fix TLVs or MACs for toxic chemicals taking into consideration environmental and inheritance factors characteristic of a fast developing society; to collect and disseminate documented information on hazardous chemicals & problems of indl. toxicology.

SCIENCE MUSEUMS

Centre, Nehru, *Dr. A. Besant Rd., Worli, Bombay 400018.*
Industrial & Technological Museum, Birla, 19A, *Gurusaday Rd., Calcutta 700019.*

Industrial & Technological Museum, Visvesvaraya, *Kasturba Rd., Bangalore* 560001.

INFORMATION CENTRES

Publications and Information Directorate, *Hillside Rd., New Delhi* 110012—This Directorate is one of the constituent units of the CSIR. It aims at dissemination of scientific knowledge & information, in pursuance of which it compiles the monumental work *The Wealth of India*—a dictionary of raw materials & indl. products (20 Vols.), besides bringing out a series of ad hoc pubns. in applied sciences. Apart from publishing 14 journals on scientific & technological disciplines & 3 popular science journals, it runs information services on medicinal/aromatic plants & industries, and also imparts trg. in editorial work.

Documentation Centre, Indian National Scientific (INSDOC), 14, *Satsang Vihar Mrg., New Delhi* 110067—Established in 1952, with technical assistance from UNESCO, it provides a complete range of documentation services in science and technology to individuals and institutions all over the country.

Information Science, Society for (SIS), *Insdoc Bldgs., Hillside Rd., New Delhi* 110012.

Social Science Documentation Centre (SSDC-ICSSR), 35, *Ferozeshah Rd., New Delhi* 110001. The Centre serves the information needs of social scientists; provides literature research services; bibliographies on demand; reprographic services; offers inter-library loans; exchange of publications & study grant facilities; maintains depository of periodicals, unpublished dissertations & research reports, etc., etc.

INDIAN COUNCIL OF AGRICULTURAL RESEARCH, *Krishi Bhavan, New Delhi* 110001.

A national body responsible for co-ordinating research, education & extension education in Agriculture, Animal Husbandry & Fisheries Sciences. It performs these functions in an integrated manner and operates through a national grid of co-operative research in which Central institutes & agricultural universities in different States participate as equal partners. The ICAR is involved directly in the research set-up through the existing 35 Central institutes, 3 national research centres, 5 project directorates, 58 all-India co-ordinated research projects including a special project for tribal & backward areas. In the Sixth Five Year Plan, 4 new institutes, 5 national research centres & 12 all-India co-ordinated projects are being added. Location-specific problems are also tackled through the 25 agricultural universities distributed all over the country and a few public, quasi-public & private insttns. The ICAR has also established a large number of first-line trg. insttns., Krishi Vigyan Kendras, and has undertaken operational research projects, and is operating a massive lab-to-land programme for the transfer of appropriate technology.

Agricultural Engineering, Central Instt. of, *Shri Guru Teg Bahadur Complex. Addl. 'A' Block, New Market, T. T. Nagar, Bhopal* 462003.

Agricultural Research Institute, Indian, *Pusa, New Delhi* 110012—The centre of origin of many new findings relevant to increasing productivity of our economic crops and of techniques for improving soil fertility, fertilizer use, water management, dryland farming and greater use of renewable sources of energy. It has provided leadership for the high yielding varieties programme that has contributed to our present production advance in agriculture. Since 1958, when it became a Deemed Univ., about 1,400 students have been awarded the M.Sc. and 1,600 students the Ph.D. degrees in 15 major disciplines.

Agricultural Research Institute for Andaman and Nicobar Group of Islands, Central, *Port Blair* 744101.

Agricultural Research Management, National Academy for, *Rajendranagar, Hyderabad* 500030.

Agricultural Statistics Research Institute, Indian, *Library Ave., New Delhi* 110012.

Arid Zone Research Institute, Central, *Jodhpur* 342001, *Rajasthan.*

Avian Research Institute, Central, *Izatnagar* 243122, *Uttar Pradesh.*

Bee Research Institute, Central, 839/1, *Deccan Gymkhana, Pune* 411004.

Black Cotton Soils of Karnataka, Advance Centre for Research on, *Coll. of Agriculture, Univ. of Agricultural Sciences, Dharwad* 580005.

Cereal Research Laboratory, *Indian Agricultural Research Instt., New Delhi* 110012.

Cotton Research, Central Institute for, *Lawley Rd., Coimbatore* 641007. *Tamil Nadu.*

Cotton Research, Central Instt. for, 95, *Pushpa Kunj, Canal Rd., New Ramdaspeth, Nagpur* 440010.

Cotton Technological Research Laboratory, *Adenwala Rd., Matunga, Bombay* 400019.

Crop Pests & Weeds, National Centre for Biological Control of, *42-III, Main Rd., Ganganahalli Layout, Bangalore* 560032.

Dairy Research Institute, National, *Karnal* 132002. *Haryana, Regional Stations: Eastern—at Kalyani, West Bengal; Southern—at P.O. Adugodi, Hosur Rd., Bangalore* 560030; *Western—at Aarey Milk Colony, Bombay* 400065.

Dryland Agriculture, All India Co-ordinated Research Project on, *Santoshnagar, Saifabad, Hyderabad* 500030. *Andhra Pradesh.*

Fisheries Research Institute, Central, *Barrackpore* 743101. *(West Bengal).*

Fisheries Technology, Central Institute of, *Wellingdon Island, Matsyapuri, Cochin* 682029, *Kerala.*

Fresh Water Aquaculture Research & Trg. Centre, *Dhuli Kausalyagang, Cuttack* 751002. *Orissa.*

Goat Research Institute, Central, *Makhdoom, P.O. Farah, Mathura* 281122. *Uttar Pradesh.*

Grassland and Fodder Research Institute, Indian, *Jhansi* 284003. *Uttar Pradesh.*

Groundnut, National Research Centre for, *Maharshi Dayanand Farm, Gujarat Agricultural University Campus, Junagadh* 362002, *Gujarat.*

Horticultural Research, Indian Institute of, *No.* 255, *Upper Palace Orchards, Bangalore* 560080.

ICAR Research Complex for North-Eastern Hills Region, *Cedar Lodge, Jowai Rd., Shillong* 793003. *(Meghalaya).*

Inland Fisheries Research Institute, Central, *Barrackpore* 743101, *West Bengal.*

Jute Agricultural Research Institute, *Barrackpore* 743101. *West Bengal.*

Jute Technological Research Laboratories, *12, Regent Park, Calcutta* 700040.

Lac Research Institute, Indian, *Namkum, Ranchi* 834010, *Bihar.*

Marine Fisheries Research Institute, Central, *P. Box* 1912, *Cochin* 682018, *Kerala.*

Oilseeds Research, Directorate of, *'D' Block, College of Agriculture, Rajendranagar, Hyderabad* 500030, *Andhra Pradesh.*

Plant Genetic Resources, National Bureau of, *FCI Bldg., CTO Complex, Pusa, New Delhi* 110012.

Plantation Crops Research Institute, Central, *Kudlu* 670124 *(Cannanore Dist.), Kerala.*

Potato Research Institute, Central. *Simla* 171001, *Himachal Pradesh.*

Rice Improvement Project, All India Co-ordinated, *Rajendranagar, Hyderabad* 500030.

Rice Research Institute, Central, *Cuttack* 753006, *Orissa.*

Sheep and Wool Research Institute, Central, *Avikanagar* 304501, *Rajasthan.*

Soil and Water Conservation Research & Training Institute, Central, 218, *Kaulagargh Rd., Dehra Dun* 248195, *Uttar Pradesh.*

Soil Salinity Research Institute, Central, *Karnal* 132001, *Haryana.*

Soil Survey and Land Use Planning, National Bureau of, *Seminary Hills, Nagpur* 440006.

Sugarcane Breeding Institute, *Lawley Rd., Coimbatore* 641007, *Tamil Nadu.*

Sugarcane Research, Indian Institute of, *P.O. Dilkusha, Lucknow* 266002, *Uttar Pradesh.*

Tobacco Research Institute, Central, *Rajahmundry* 533104, *Andhra Pradesh.*

Tuber Crops Research Institute, Central, *Trivandrum* 695017.

Veterinary Research Institute, Indian, *Izatnagar* 243122, *Uttar Pradesh.*

Vivekananda Parvatiya Krishi Anusandhan Shala, *Almora* 263601, *Uttar Pradesh.*

Water Technology Centre, *Indian Agricultural Research Institute, New Delhi* 110012.

INDIAN COUNCIL OF MEDICAL RESEARCH, *Ansari Nagar, New Delhi* 110029.

The ICMR is an autonomous organisation which initiates, develops and co-ordinates bio-medical research in the country. It maintains eighteen permanent institutes/centres and several semi-permanent research units. These institutions/centres have been marked with an asteriks in the list of important medical research bodies mentioned below:

Anatomy: *Institute of Anatomy, Madras Medical College, Park Town, Madras* 600003.

Cancer: (1) *Cancer Research Institute of Tata Memorial Centre, Parel, Bombay* 400012. (2) *Chittaranjan National Cancer Research Centre,* 37, *S. P. Mookerjee Rd., Calcutta* 700026. (3) *Mehdi Nawaz Jung Cancer Hospital and Radium Institute, Red Hills, Hyderabad* 500001, *Andhra Pradesh.* (4) **Cytology Research Centre, Maulana Azad Medical Coll., Bahadur Shah Zafar Mrg., New Delhi* 110002.

Cytology: **Cytology Research Centre, Maulana Azad Medical College, New Delhi* 110002.

Haematology: (1) **Institute of Immunohaematology, Seth G. S. Medical College, Bombay* 400012. (2) *ICMR Haematology Unit, School of Tropical Medicine, Calcutta* 700063.

Health, Preventive Medicine: (1) *†All India Institute of Hygiene and Public Health,* 110, *Chittaranjan Ave., Calcutta* 700012. (2) *Chemical Examiners' Laboratory, Madras* 600003. (3) *Public Health Laboratory, Red Cross Rd., Trivandrum* 695001, *Kerala.* (4) *Government Analyst's Laboratory, Red Cross Rd., Trivandrum* 695001, *Kerala.*

Indian Systems of Medicine: (1) *Institute for Ayurvedic Studies and Research, Dhanwantri Mandir, P.O. Bag* 513, *Jamnagar* 361001, *Gujarat.* (2) *†Institute of Research in Indigenous System of Medicine. Approach Rd., Jagindernagar, Himachal Pradesh.* (3) *Central Council for Research in Ayurveda and Siddha, Dharma Bhavan, S-10, Green Park Extn. Mkt., New Delhi* 110017. (4) *Central Council for Research in Unani Medicine, No.* 5, *Panchsheel Shopping Centre, New Delhi* 110017. (5) *Central Council for Research in Homoeopathy. C/o Homoeopathy Pharmacopoeia Laboratory, Navyug Market, Ghaziabad* 201001. (6) *Central Council for Research in Yoga and Nature Cure, Ashoka Rd., New Delhi* 110003.

Infectious Diseases: (1) **National Instt. of Cholera and Enteric Diseases, P-33, CIT Scheme XM, Beliaghata, Calcutta* 700013. (2) *Institute of Venereology, Government General Hospital, Madras* 600003. (3) *†National Institute of Communicable Diseases,* 22, *Alipore Rd., Delhi* 110006. (4) **Vector Control Research Centre, Opp. ESI Hospital, Indra Nagar, Pondicherry* 605006. (5) **Malaria Research Centre,* 22, *Sham Nath Mrg., Delhi.* 110054.

Leprosy: (1) *†Central Leprosy Teaching and Research Institute, P. O. Box* 1, *Chingleput* 603001. *Tamil Nadu,* (2) *Leprosy Investigation and Treatment Centre, Zaheerabad* 502220, *Andhra Pradesh.* (3) *Schieffelin Leprosy Research Sanatorium, Karigiri, Via Katpadi* 632007. *Tamil Nadu.* (4) **Central JALMA Instt. for Leprosy, Tajganj, Agra* 282001. *Uttar Pradesh.*

Malaria: *Malaria Eradication Programme, National,* 22, *Sham Nath Mrg., Delhi* 110054 *Malaria Research Centre,* 22, *Sham Nath Mrg., Delhi* 110054.

Medical Education and Research: (1) *†All India Institute of Medical Sciences, Ansari Nagar, New Delhi* 110029. (2) *†All India Institute of Physical Medicine and Rehabilitation, Haji Ali Park, Clerk Rd., Bombay* 400034. (3) *†Central Research Institute, Kasauli* 173204, *Himachal Pradesh.* (4) *Haffkine Institute for Training, Research and Testing, Parel, Bombay* 400012. (5) *Indian*

Institute of Experimental Medicine, 4, Raja Subodh Mullick Rd., Calcutta 700032. (6) *Institute of History of Medicine and Medical Research, 2/A-3, Asaf Ali Rd., New Delhi 110002.* (7) *Institute of Post-graduate Medical Education and Research, 244, Lower Circular Rd., Calcutta 700020.* (8) †*Jawaharlal Nehru Institute of Post-graduate Medical Education and Research, Pondicherry 605006.* (9) †*National Institute of Health Administration and Family Welfare, New Mehrauli Rd., New Delhi 110067.* (10) *Post-graduate Institute of Indian Medicine, Varanasi 221005, Uttar Pradesh.* (11) *Post-graduate Institute of Medical Education and Research, Sector 12, Chandigarh 160001.* (12) *Sheth K. M. School of Postgraduate Medicine and Research, Ellis Bridge, Ahmedabad 380006.* (13) **Laboratory Animal Information Service, National Instt. of Nutrition, Jamia-Osmania, Hyderabad 500007.* (14) **Regional Medical Research Centres, 107(P), Acharya Vihar, Bhubaneswar 751013, Orissa; Ferzard Ali Market, Aberdeen Bazar, Port Blair 744104, Andaman & Nicobar Islands; East Chowkindinghee, Dibrugarh 786001, Assam.*

Medical Sciences: **Rajendra Memorial Research Institute of Medical Sciences, Agam Kuan, Patna 800001.*

Medical Statistics: **Instt. for Research in Medical Statistics, ICMR, Ansari Nagar, New Delhi 110029; Sathyamurthi Rd., Chetput, Madras 600031*

Mental Health: (1) †*All India Institute of Mental Health, P. O. Bag 15, Shantinagar P. O., Bangalore 560027.* (2) *Hospital for Mental Diseases and Post-graduate Training Centre, Kanke, Ranchi 834001, Bihar.*

Nutrition: **National Institute of Nutrition, Jamia-Osmania, Hyderabad 560007, Andhra Pradesh.*

Occupational Health: (1) *Industrial Toxicology Research Centre, Chattar Manzil Palace, Post Box 80, Lucknow 226001, Uttar Pradesh.* (2) **National Institute of Occupational Health, Meghani Nagar, Ahmedabad 380016, Gujarat.* (3) **Regional Occupational Health Centres: PPC Block, Bangalore Medical College Campus, Bangalore 560002; C/o All India Instt. of Hygiene and Public Health, 110, Chittaranjan Ave., Calcutta 700012.*

Ophthalmology: (1) *M. U. Institute of Ophthalmology, Gandhi Eye Hospital, Aligarh 202001, Uttar Pradesh.* (2) *Nehru Institute of Ophthalmology, Eye Hospital, Sitapur 261001, Uttar Pradesh.*

Paediatrics: (1) *B. M. Institute, Balghar, Godavari Centre for Family Relations, Navrangpura, Near Nehru Bridge, Ahmedabad 380009, Gujarat.* (2) *Institute of Child Health, 11, Dr. Biresh Guha Rd., Calcutta 700017.*

Pathology: **Institute of Pathology, Department of Pathology, Safdarjung Hospital, P. O. Box 3039, New Delhi 110029.*

Pharmacy: (1) *Central Drug Research Institute, Chattar Manzil Palace, P. O. Box 173, Lucknow 226001, Uttar Pradesh.* (2) †*Central Drug Laboratory, 3, Ishaque Rd., (Kyd St.), Calcutta 700016.* (3) **Food & Drug Toxicology Centre, National Instt. of Nutrition, Jamia-Osmania, Hyderabad 500007.*

Physiology: *Defence Institute of Physiology and Allied Sciences, Cantonment, New Delhi 110010.*

Radiotherapy: (1) *Barnard Institute of Radiology, Madras Medical College, Madras 600003.* (2) *Institute of Nuclear Medicine and Allied Sciences, Probya Rd., Delhi 110006.*

Reproduction: (1) **Institute for Research in Reproduction, Jehangir Merwanji St., Parel, Bombay 400012.*

Serology: (1) † *B. C. G. Vaccine Laboratory, Guindy, Madras 600032.* (2) *Government Vaccine Institute and Pasteur Institute, Namkum P.O., Ranchi 834010, Bihar.* (3) *King Institute of Preventive Medicine, Guindy, Madras 600032.* (4) *State Vaccine Institute, Patwa-Dargar 263128, Uttar Pradesh.*

Tuberculosis: (1) *Government Chest Institute and Tuberculosis Demonstration and Training Centre, Spur Tank Rd., Chetput, Madras 600031.* (2) † *National Tuberculosis Institute, 8, Bellary Rd., Bangalore 560003.* (3) * *Tuberculosis Research Centre, Chetput, Madras 600031.* (4) † *Vallabhbhai Patel Chest Institute, University of Delhi, Delhi 110007.*

Virus Infections: (1) * *National Instt. of Virology, 20-A, Dr. Ambedkar Rd., Pune 411001.* (2) * *Entrovirus Research Centre, Haffkine Instt., Parel, Bombay 400012.*

Voice and Speech: † *All India Institute of Speech and Hearing, Maharaja College Centenary Hall, Mysore 570005.*

OTHER CENTRAL GOVERNMENT INSTITUTIONS

Anthropological Survey of India, 27, *Jawaharlal Nehru Rd., Indian Museum, Calcutta 700016. Zonal Museums at Jagdalpur (M.P.), Nagpur, Shillong, Dehra Dun, Port Blair & Mysore.*

Atlas Organisation, National, 50A, *Gariahat Rd., Calcutta 700019.*

Botanical Survey of India, *P.O. Botanic Garden, Howrah 711103,* (1) *Indian Botanic Garden, Howrah 711103;* (2) *Central National Herbarium, Howrah 711103;* (3) *Central Botanical Laboratory, Howrah 711103;* (4) *Industrial Section, Indian Museum, 1, Sudder St., Calcutta 700013;* (5) *Central Circle—10, Chatham Lines, Allahabad 211002, Uttar Pradesh;* (6) *Eastern Circle—'Woodlands', Lower New Colony, Shillong 793003, Meghalaya;* (7) *Northern Circle—3, Lakshmi Rd., Dehra Dun 248001, Uttar Pradesh;* (8) *Southern Circle—Tamil Nadu Agricultural Univ. Campus, Lawley Rd. P.O., Coimbatore 641003. (T. Nadu);* (9) *Western Circle — Moti Mansion, Koregaon Rd., Pune 411001, Maharashtra;* (10) *Arid Zone Circle—D-7, Shastri Nagar, Jodhpur 342001, Rajasthan;* (11) *Andaman and Nicobar Circle — Horticultural Rd., Haddo, Port Blair 744102;* (12) *Itanagar Field Station, Itanagar, Arunachal Pradesh;* (13) *Sikkim Himalayan Circle, Shenga's House, Balwakhani, Chief Justice Rd., Gangtok 737101, Sikkim.*

Botanic Garden, Indian, *Shibpore, Howrah 711103, West Bengal.*

Buildings Organisation, National, *Nirman Bhavan, 'G' Wing, Maulana Azad Rd., New Delhi 110011.*

Civil Aviation Department, Research and Development Directorate, *Technical Centre, Civil Aviation Department, Safdarjung, New Delhi 110003.*

Coconut Research Station, Central, *P.O. Kudla, Kasaragod 670124, Kerala. Regional Stations:* (1) *Kayangulam 690533, Kerala;* (2) *Calicut 673011, Kerala;* (3) *Vittal 574243, Karnataka.*

Coffee Research Institute, Central, *P.O. Coffee Research Station. Chikmagalur Dist., Karnataka State.*

Coir Research Institute, Central, *P.O. Kalvoor, Alleppey 688001, Kerala State.*

Crops Research Institute for the Semi Arid Tropics, *Patancheru 502324. (A.P.).*

Design Institute, National, *Paldi, Ahmedabad 380007.*

Family Welfare Institute, *L-17, Green Park, New Delhi 110016.*

Family Welfare Training & Research Centre, 382, *Sardar Vallabhbhai Patel Rd., Bombay 400004.*

Fishing Organisation, Deep Sea, *Botawala Chambers, Sir P.M. Rd., Bombay 400001.*

Fluid Control Research Institute, *Kanjikode West, Palghat 678623. Kerala State. The Instt. is being set up by the Govt. of India with UNDP assistance for research & development including technology development of flow products such as industrial valves, flow meters, orifice plates, venturies, flow nozzles, etc. The Ministry of Industry has appointed Instrumentation Ltd. as the implementing agency of the Project.*

Food Laboratory, Central, 2, *Kyd St., Calcutta 700016.*

Forensic Science Laboratory, Central, 30, *Gora Chand Rd., Calcutta 700014.*

Forest Research Centre, *Coimbatore 641002, Tamil Nadu.*

Forest Research Institute and Colleges, *New Forest P.O., Dehra Dun 248001, Uttar Pradesh.*

Forest Research Laboratory, *Malleswaram P.O., Bangalore 560003.*

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* Institutions under Indian Council of Medical Research.

† Institutions under Central Government, Ministry of Health and Family Welfare.

Foundry & Forge Technology, National Institute of, *Hatia P.O., Ranchi* 834003, *Bihar.*

Geodetic and Research Branch, *Survey of India, P.O. Box* 77, *Dehra Dun* 248001, *Uttar Pradesh.*

Geological Survey of India, 27, *Jawaharlal Nehru Rd., Calcutta* 700001.

Grain Storage Research and Training Centre, *Meerut Rd., P.O. Box* 10, *Hapur* 245101, *Uttar Pradesh.*

Handloom Technology, Indian Institute of, (1) *Foulkes Compound, Salem* 636001, *Tamil Nadu;* (2) *Chowkaghat, Varanasi* 221002, *Uttar Pradesh.*

Housing Wing, Rural, *Punjab Engineering College, Chandigarh* 160001.

Housing Wing, Rural, Research-cum-Training Centre, *Birla Vishvakarma Mahavidyalaya, Vallabh Vidyanagar 388120. Kaira District, Gujarat.*

Hydrology, National Instt. of, *Roorkee* 247672.

Meteorology, Institute of Tropical, *Ramdurg House, Poona University Rd., Pune* 411005.

Mines, Indian Bureau of, *New Secretariat Bldg., Nagpur* 440001.

Observatory, Astrophysical, *Kodaikanal* 624103, *Tamil Nadu.*

Observatory, Central Seismological, *Health Home, Shillong* 793005, *Meghalaya.*

Observatory, Colaba and Alibag, *Colaba, Bombay* 400005.

Oil & Natural Gas Commission, Research & Training Institute, 9, *Kaulagarh Rd., P.O. Box* 40, *Dehra Dun* 248001, *Uttar Pradesh.*

Orthopaedics, Central Institute of, *Safdarjang Hospital, New Delhi* 110016.

Photo-Interpretation Institute, Indian, *No.* 113, *Rajpur Rd., Dehra Dun* 248001, *Uttar Pradesh.*

Pineapple Fibre Research Centre, *Moodbidri* 574227 *(Karnataka State).*

Population Studies, International Institute of, *Govandi Station Rd., Deonar, Bombay* 400088.

Power Research Institute, Central, *P.O. Box* 1042, *Bangalore* 566012; *Govindpura, Bhopal* 462023.

Productivity Council, National, *Productivity House, Lodi Rd., New Delhi* 110003.

Pulp & Paper Research Instt., Central, *106/11, Vasant Vihar, P.O. Indiranagar, Dehra Dun 248011.*

Railways, Research, Designs and Standards Organisation, *Alambagh, Lucknow* 226005.

Rice Research Station, Central Saline, *C/o Central Rice Research Inst., Canning Town* 743329. *24-Parganas Dist., West Bengal.*

Rubber Research Institute of India, *Kottayam* 686009, *Kerala.*

Salt Test Laboratory, Government, *Antop Hill, Wadala, Bombay* 400031.

Sericultural Research and Training Institute, Central, Shanthivilas, Nazarbad, Mysore 570001.

Small Industries Extension Training Institute, *Yousufguda, Hyderabad* 500038.

Soil Mechanics Research Station, Central, *Exhibition Grounds, American Pavilion, Mathura Rd., New Delhi.*

Standards Institution, Indian, 9, *Bahadur Shah Zafar Marg, New Delhi* 110002.

Sugar Institute, National, *Kalimpur, Kanpur 208001, Uttar Pradesh.*

Telecommunication Research Centre, *Eastern Court Compound, Jan path, New Delhi* 110002.

Test House, National, 11/1, *Judges' Court Rd., Alipore, Calcutta* 700027.

Water & Power Research Station, Central, *P.O., Khadakwasla Pune* 411024.

Yoga, Central Research Instt. of, *Post Box* 219, *New Delhi* 110001.

Zoological Survey of India, 34, *Chittaranjan Ave., Calcutta* 700012.

OTHER RESEARCH BODIES

ANDHRA PRADESH

Archaeological & Cultural Research Instt., Birla, 16-1-740, Asmangadh Palace, Malakpet, Hyderabad 500036.

Defence Metallurgical and Research Laboratory, Yakutpura, Hyderabad 500033.

Geography, Indian Instt. of, 10-3-81/1, Marredpalli East, Secunderabad 500026. Branch: Topenagar Camp, Amravati 444602, Maharashtra.

Historical Research Socy., Andhra, Rajahmundry 533101.

Nutrition, National Institute of (ICMR), Jamia Osmania, Hyderabad 500007. Principal research and trg. centre on Nutrition for South & South East Asia. Publications include *Nutrition* (Quarterly in English, Hindi & Telugu), *Nutrition News* (Bi-Monthly), *Nutritive Value of Indian Foods, Dietary Allowances for Indians, etc.*

Within the National Institute of Nutrition, the following three centres have been established: 1. Food and Drug Toxicology Research Centre (FDTRC); 2. Laboratory Animal Information Services (LAIS); 3. National Nutrition Monitoring Bureau (NNMB).

Oil Technological Research Instt., Anantapur 515001. Run by the A.P. Govt. Conducts research on vegetable oils, fats & allied products. Technical advice and service on problems relating to oil technology are offered.

Oilseeds Development Council, Indian, Telhan Bhavan, Himayatnagar, Hyderabad 500029.

Organisation Development, Centre for, Nageena, Rd: No. 3, Banjara Hills, Hyderabad 500034. To promote research on management and development of organisations, and to assist organisations in developing their capability and improving their effectiveness.

Public Enterprise, Instt. of, Osmania Univ. Campus, Hyderabad 500007.

Remote Sensing Agency, National, Balanagar, Hyderabad 500037. Autonomous orgn. under the Deptt. of Space, Govt. of India, to undertake earth resources survey using remote sensing, a technology which finds applications in agriculture, forestry, oceanography, ground & surface water, soil classification, land use, urban plng., pollution monitoring, mineral surveys, geophysical survey, cartography, meteorology, etc. The organisation has modern facilities for remotely sensed data acquisition, analysis and interpretation including a Landsat reception station and flight facility.

Scientific Research, Ashok Instt. of, 108, Walker Town, Secunderabad 500025.

Tribal Cultural Research & Trg. Instt., Banjara Hills, Road No. 1, Hyderabad 500034.

Unani Medicine, Central Research Instt. for, 10-2-8, A.C. Guards, Hyderabad 500004.

Water Development Society, Ind. Estate, Moula Ali, Hyderabad 500040.

Yoga and Allied Sciences, Indian Instt. of Research in, 4th Hostel, S.P.W. Coll., Tirupati 517502.

ASSAM

Tea Research Assocn., Tocklai Experimental Stn., Jorhat 785008.

BIHAR

Hydraulic & Allied Research, Bihar Instt. of, Patna 800001.

Medical Sciences, Rajendra Prasad Memorial Research Instt. of, Agam Kuan, Patna 800007.

Prakrit, Jainology and Ahimsa, Research Instt. of, Vaishali 844128.

Research Instt., K.P. Jayaswal (Govt. of Bihar), Museum Bldgs., Patna 800001.

Soil Conservation Research, Demonstration & Trg. Centre, P.O. Jogbani 854328. Purnea Dist.

Soil Conservation Socy. of India, 15, Hayley Rd., Patna 800001.

DELHI

Advanced Management Research Centre, Shanti Prasad Jain, Faculty of Management Studies, Univ. of Delhi, Delhi 110007.

Applied Economic Research, National Council of, Parisila Bhavan, 11, Indraprastha Estate, New Delhi 110002.

An autonomous research organisation estd. in 1956 to undertake sponsored research work from Central & State Govts. and undertakings, intnl. orgs., assns. of industry & commerce besides projects on its own initiative. The areas of research cover economic devpt. & plng. for agriculture, industry, trade, transport, energy, employment, public finance, besides socio-economic studies in rural & urban areas. It has done 446 projects of which 235 have been published. It has in-house computer. Library: 47,572 vols., 600 periodicals with photocopying facilities. Brings out quarterly journal *Margin, Director-General,* I Z. Bhatty; *Registrar & Associate Dir.:* S. R. Chawla.

Applied Manpower Research, Instt. of, Indraprastha Estate, Ring Rd., New Delhi 110002. Studies and disseminates, information on the nature & characteristics of the stock and utilisation of human resources in India; the future requirements of trained manpower of every kind for economic development in the light of economic and technological change. Organizes short-term courses on manpower plng. and provides consultancy services.

Biochemical Engg. Research Centre, IIT, Hauz Khas, New Delhi 110016.

Blindness, National Socy. for the Prevention of, Ansari Nagar, New Delhi 110016. Conducts research into causes of blindness—how these can be eliminated and suggests steps for the proper care and use of eyes. The Society has branches all over the country, ophthalmic research centres in Modinagar, U.P., Raison, Kulu (H.P.) and a research workshop in New Delhi for the manufacture of highly sophisticated contact lenses, low vision aids and other optical devices.

Cement Research Instt. of India, M-10, S. Extn., Ring Rd., New Delhi 110049.

Economic & Scientific Research Foundation, Federation House, Tansen Marg, New Delhi 110001.

Employment Service, Central Instt. for Research & Trg. in, Pusa, New Delhi 110012. Objectives: *(a)* Conducting surveys on employment & unemployment aspect of manpower and research studies on matters relating to organisational, functional & procedural problems of Employment Exchanges; *(b)* Organising professional trg. courses/seminars for employment service officers of India and similar offices deputed by foreign Govts. under various international or bilateral arrangements, organising trg. courses/seminars/workshops on employment service matters in collaboration with I.L.O.; (c) publication of occupational information and career literature for use in ednl. instns. and employment exchanges for vocational guidance.

Eye Research Foundation, Times, 7, Bahadur Shah Zafar Mrg., New Delhi 110002.

Historical Research, Indian Council of, 35, Ferozeshah Rd., New Delhi 110049.

Indian Medicine, Central Council of, 1-E/6, Swami Ramtirth Nagar, New Delhi 110055.

Industrial Relations & Human Resources, Shri Ram Centre for, 5, Sadhu Vashwani Mrg., New Delhi 110005. A research and teaching insttn. concerned with the applied problems of public & private sector industries as well as of rural labour. Conducts research and disseminates the findings through trg. programmes, seminars & conferences, etc.

Industrial Research, Shri Ram Instt. for, 19, Univ. Rd., Civil Lines, Delhi 110007. Consists of two research divns., *i.e.,* Polymer and Fibre and one analytical divn. called Shriram Test House. Serving the nation through applied industrial research for the last 30 years.

Informatics Centre, National, E-Wing, Pusha Bhavan, Madanpur Rd., New Delhi 110062. Specialises in interactive data bases on network of computers for the Govt. of India and large data bases and computer-communication networking.

Nehru Memorial Museum and Library, Teen Murti House, New Delhi 110011. A personalia museum depicting the life & work of Jawaharlal Nehru in the context of the struggle for Indian freedom, and a research library specialising in the history of modern India. Besides 84,500 volumes, the library has a rich collection of newspapers, unpublished private papers, photographs, oral history recordings & microfilms.

Nuclear Research Laboratory, I.A.R.I., New Delhi 110012.

Organisation Research & Development, Asian Centre for, Post Box No. 4226, New Delhi 110048.

Organisational Research, Foundation for (FORE), Management House, 14, Institutional Area, New Delhi 110003.

Objects: An autonomous, non-profit research insttn. founded by leading professionals from Govt., industry & ednl. insttns., and is committed to an understanding of organisational dynamics, especially in the Indian context.

Petroleum Conservation Research Assocn., 306, Sethi Bhavan, 7, Rajendra Place, New Delhi 110008.

Philosophical Research, Indian Council of, 14-AB, L.B. Shastri Mrg., New Delhi 110001.

Population, Indian Assocn. for the Study of, Instt. of Economic Growth, Univ. of Delhi, Delhi 110007.

Potash Research Institute of India, 309, Pragati Tower, 26, Rajendra Place, New Delhi 110008.

Psychic & Spiritual Research, Instt. of, 22, Sardar Patel Marg, New Delhi 110021

Public Co-operation, Central Instt. of Research & Training in, C-1/4, Safdarjang Dev. Area, Hauz Khas, New Delhi 110016. Trg. & research in social welfare & public co-operation.

Public Co-operation and Child Development, National Instt. of (Min. of Social Welfare, Govt. of India), Siri Institutional Area, Opp. Police Stn., Hauz Khas, New Delhi 110016.

Small Industries Research & Devpt. Organisation (SIRDO), Laghoodyog Kutee, 23-B/2, Guru Govind Singh Mrg., New Delhi 110005. To identify the potential entrepreneur, help them with consultancy service, project-preparation, management training in all disciplines, financial assistance, easy and regular flow of new materials through setting up of raw materials, banks and arrange marketing of the products.

Small Industry Research Institute (Regd.), 4/43, Roopnagar, Delhi 110007.

Social Science Research, Indian Council of, 35, Ferozeshah Rd., New Delhi 110001. An autonomous body set up by the Govt. of India to promote and co-ordinate social science research, to improve its quality & to facilitate its dissemination and utilisation in policy formulation & national devpt. and to fund select research insttns.

Training and Development, Indian Society for, N/17A, Green Park Extn., New Delhi 110016.

Water Pollution, Central Board for Prevention and Control of, Ex-AFO Mess, Dr. R. Prasad Rd., New Delhi 110001.

GOA

Historical Research, Xavier Centre of, Alto de Porvorim 403521. Set up by the Goa-Pune Province of the Society of Jesus in collaboration with the Heras Instt. of Indian History & Culture. It encourages research in Indo-Portuguese period.

Medical Research Centre, Salgaocar, Salgaocar House, Vasco da Gama 463802.

GUJARAT

Cancer Research Instt., Gujarat, New Civil Hosp. Campus, Asarwa, Ahmedabad 380016.

Economic & Social Research, Sardar Patel Instt. of, Thaltej, Ahmedabad 380054.

Electrical Research & Development Assocn. (ERDA), Commercial Bldg., Makarpura Indl. Estate, Vadodara 390010.

Electronic Research Centre, Sarabhai, Naroda Ind. Area, Naroda, Ahmedabad 382320.

Energy Development Agency, Gujarat, B.N. Chambers, 3rd Flr., R.C. Dutt Rd., Vadodara 390005.

Engineering Research Instt., Race Course Rd., Vadodara 390005.

Entrepreneurship Development Instt. of India, C/o Industrial Development Bank of India, Neptune Bldg., Ashram Rd., Ahmedabad 380009. Set up by IDBI, ICICI & IFCI, State Bank of India & State Govts. for entrepreneurship trg., research and developing to serve the national needs in the field.

Learning and Research, Sheth Bholabhai Jeshingbhai Instt. of, R. C. Marg, Ahmedabad 380009.

Man-Made Textile Testing & Research Assocn., SASCMA, Resham Bhavan, Lal Darwaja, Surat 395003.

Physical Research Laboratory, Navrangpura, Ahmedabad 380009.

Research Centre, Sarabhai, Wadi Wadi, Vadodara 390007.

Research Society, Gujarat, 445, Paldi, Ahmedabad 380007.

Soil Conservation Research, Demonstration & Trg. Centre, Opp. Rly. Station, Valsad 391830.

Solar Energy Instt., Jyoti, Birla Vishvakarma Mahavidyalaya, Vallabh Vidyanagar 388120. Engaged in research & education in the area of solar, biogas and biomass.

Textile and Allied Industries Research Organisation (TAIRO), Kala Bhavan Premises, Vadodara 390001.

Textile Industry's Research Assocn., Ahmedabad (ATIRA), P.O. Polytechnic, Ahmedabad 380015. Devpt. of new products & processes; consultation on technical & managerial problems; trg. of supervisors from industry. Recognised for postgraduate research degree of Gujarat University.

Textiles Research Assn., Man-Made, Near Microwave Tower, Ring Rd., Surat 395002.

HARYANA

Agricultural Research Communication Centre, Sadar, Karnal 130201.

JAMMU & KASHMIR

Dogri Research Institute (Regd.), Raghunath Mandir, Jammu 180001.

KARNATAKA

Agricultural Research, Karnataka Instt. of Applied, Sameerwadi 587312. Bijapur Dist.

Historical Research Socy., Karnataka, S.K. Rodda Rd., Dharwar 580001.

Leprosy Relief and Research Instt. of Ayurveda, Arunodaya, P.O. Kengeri 562118, Bangalore South.

Machine Tool Institute, Central, Tumkur Rd., Bangalore 560022. An industry-oriented research organisation devoted to research and development of machine tools and production engineering in India.

Naturopathy & Yogic Science, Instt. of, 16th K.M., Tumkur Rd., Bangalore 560073.

Oriental Research Instt., Mysore 570001.

Plywood Industries Research Instt., Indian (Min. of Industry, Govt. of India), Tumkur Rd., Bangalore 560022.

Raman Research Instt., Mekhri Circle, Bangalore 560006.

Social & Economic Change, Institute for, Nagarabhavi, Bangalore 560072. An all India Instt. for inter-disciplinary research & trg. in social sciences.

KERALA

Development Studies (C.D.S.), Centre for, Arkonam Rd., Trivandrum 695001. Research and study of various disciplines relevant to the national development.

Earth Science Studies, Centre for, P.B. 2235, Sasthamangalam, Trivandrum 695010. An autonomous research and trg. organisation established by the Govt. of Kerala.

Electronics Research & Development Centre, Vellayambalam, Trivandrum 695001.

Forest Research Instt., Kerala, Peechi 680653, Trichur Dist.

Industrial and Commercial Research Socy. of India, Vallia Veedu, Kozhencheri 689641.

Management Development, Centre for, 'Bindeepam'. Sasthamangalam, Peroorkada Rd., Trivandrum 695005. Estd. in 1979 by the Govt. of Kerala as an autonomous insttn. supported by industry. It aims at enrichment of management policies and practices through management development programmes, organisation based programmes, entrepreneur devpt. programmes, mgmt. trg. for small industries, project & mgmt. consultancy, research & information service.

Maternal & Child Health, Instt. of, Calicut 673008.

Tropical Botanic Garden & Research Institute, Navaranga Rd., Trivandrum 695011. Founded by Govt. of Kerala in 1979. *Objects:* To promote & establish modern scientific research and devpt. studies relating to plants of importance to India, and to Kerala in particular; to establish a botanical garden, and arboretum & laboratories for botanical, horticultural & chemical research, etc. *Dir.:* Prof. A. Abraham.

MADHYA PRADESH

Applied Sciences, Birla Research Instt. for, Birlagram, Nagda 456331.

Defence Research & Devpt. Establishment, Tansen Rd., Gwalior 474002.

Forest Research Instt., State, Ratannagar, Jabalpur 482001.

Oriental Research Instt., Scindia, Vikram Univ., Vikram Kirti Mandir, Ujjain 456001.

Shodh-Samsthan, Shri Natnagar, Sitamau (Malwa) 458990. Historical Research Instt.

Tribal Research Instt., Chhindwara 480001.

MAHARASHTRA

Acupuncture Research & Trg. Centre, Indian, 30/1597, Mig Colony, Khernagar, 1st Rd., Bandra East, Bombay 400051.

Agricultural Research & Development Foundation, Aspee, Adarsh Housing Society Cross Rd. No. 1, Malad, Bombay 400064.

Agricultural Research Instt., Nimbkar, Phaltan 415523, Satara Dist.

Agro-Industries Foundation, Bharatiya, Kamdhenu, S. Bapat Marg, Pune 411016. A research organisation in agriculture and animal sciences. Also engaged in rural socio-economic devpt. programmes & vaccine production.

Animal Health, BAIF Research Instt. for (RIAH), Off Pune-Nagar Rd., Wagholi 412207.

Armament Research & Devpt. Establishment, Pashan, Pune 411008.

Automotive Research Assocn. of India (A Research Instt. of the Indian Automotive Industry with the Min. of Industry, Govt. of India), Vetal Hills, Off Paud Rd., Kothrud, Post Box No. 832, Pune 411004. Conducts applied research connected with the design, devpt. and proving of automotive equipments and ancillaries. Publication: *Automotive Abstracts* (Monthly).

Braille Memorial Research Centre, NAB Louis, Rustom Alpariwala Complex, 124-127, Cotton Depot, Cotton Green, Bombay 400033. The Centre is an activity of the National Assocn. for the Blind, India, and carries out research on education, sociology & psychology in the field of blind welfare. It has been recognised by the Univ. of Bombay as an instt. of post graduate & doctoral research on the above subjects. The technical wing of the Centre prepares prototypes of simple & inexpensive aids & appliances for the blind and partially sighted.

Cancer Research and Treatment Centre, Ayurvedic, Atreya Arogya Mandir Trust, Laud Mansion, M. Karve Marg, Bombay 400002.

Cattle & Agriculture Devpt., BAIF Research Instt. of, Uruli-Kanchan 412202.

Cotton Development & Research Assocn. (ICMF), Textile Centre, 34, P. D'Mello Rd., Poona St., Bombay 400009.

Dharmakosha Mandal, P.O. Wai 412803. To conduct research in ancient Indian religion, philosophy & culture and to edit & publish encyclopaedic works such as Dharmakosha, Mimamsakosha, etc.

Drugs Research Assocn., Indian, 561-B, Shivajinagar, Behind Congress House, Pune 411005.

Electrical Research & Devpt. Assocn. (ERDA), C/o Indian Electrical Mfrs. Assocn., Kakad Chambers, Dr. A. Besant Rd., Bombay 400018.

Engineering Research Instt., Maharashtra, Dindori Marg, Nasik 422004.

Ergonomics Laboratory, Central Labour Instt. Campus, Sion, Bombay 400022. The discipline of ERGONOMICS also known as HUMAN FACTORS ENGINEERING enables us to study the man-machine systems in order to attempt at matching the machines and the environments to the man's capabilities. Studies regarding the total stress on the man arising out of the multiple factors like heat, toxic chemical fumes, vapour, dusts, work load, etc., are carried out in this Laboratory.

Fundamental Research, Tata Instt. of, Homi Bhabha Rd., Bombay 400005 (Estd. 1945). Fundamental research in pure mathematics, applications of mathematics, theoretical physics (particle physics, nuclear physics, solid state theory, astrophysics), high energy physics, cosmic rays (balloon altitudes, mountain altitudes and deep underground), space astronomies (with balloons, rockets and satellites), radio astronomy, nuclear physics, solid state physics, chemical physics, molecular biology and virology, and hydrology; applied research in solid state electronics, microwave engineering and computer sciences; national centre of the Government of India.

Haffkine Instt. for Trg., Research & Testing, Parel, Bombay 400012. The Instt. undertakes research in the fields of bacteriology, experimental medicine, chemotherapy, pharmacology, pathophysiology, biochemistry, haematology, immunology & virology related to communicable & other diseases. Also undertakes biological standardisation and evaluation of drugs. Scientists may study here for Master's or Doctorate degree or could be trained in specialised fields. It also undertakes commercial testing.

Havrashtra Foundation and Zoroastrian Community Development Institute, P. Box 4087, Bombay 400007.

Historical Research, Instt. of, 9, New Marine Lines, Bombay 400020.

History & Culture, Heras Instt. of, St. Xavier's College, Mahapalika Marg, Bombay 400001.

Industrial Research & Devpt. Centre, M. Visvesvaraya, Cuffe Parade, Colaba, Bombay 400005.

Jnana Prabodhini, 510, Sadashiv Peth, Pune 411030. A research body for Social Sciences.

Man-Made Textiles Research Foundation, Resham Bhavan, 78, V. Nariman Rd., Bombay 400020. Undertakes & promotes studies & research activity concerning man-made textiles in the field of manufacture, product devpt., mktg., etc.

Management & Research, Bhartiya Vidya Bhavan's Shriyans Prasad Jain Coll. of, Andheri, Bombay 400058.

Management & Research, Chetana Instt. of, Bandra East, Bombay 400051.

Mathematical Research Instt., Bhaskaracharya Pratishthana, 106, Erandavane. Pune 411004.

Micrographics, Indian Instt. of, Sarang St., Bombay 400003.

Music & Performing Arts, Research Instt. for (RIMPA), C/o K.C. Vajifdar, Warden Court, August Kranti Marg, Bombay 400036.

Natural History Socy., Prince of Wales Museum Compound, Bombay 400039.

Oriental Research Instt., Bhandarkar, Pune 411004.

Performing Arts, National Centre for the, Nariman Point, Bombay 400021. Objectives: To establish a national centre for research in the classical, folk, traditional and contemporary arts & sciences of performance and communication; to ensure their preservation by recording and master classes; to disseminate knowledge and raise the standard of public understanding of music, dance, drama & related arts; and accordingly, to establish schools, auditoriums, libraries, studies & workshops.

Post-Graduate and Research Instt., Deccan College, Yeravda, Pune 411006.

Reproduction, Instt. for Research in (ICMR), Opp. K.E.M. Hospital, Parel, Bombay 400012. Research in reproductive physiology, testing and evaluation of fertility regulating methods in animals, sub-human primates and humans; endocrinological and genetic studies of reproductive failure and mental retardation. **National Pituitary Agency** established in 1977. Activities are, extraction of protein hormones and preparation of diagnostic kits of hormones for biomedical research. Postgraduate teaching & training.

Research Foundation, Hindustan Lever, Chakala, Andheri East, Bombay 400099.

Research Foundation, The Times, Times of India Bldg., Bombay 400001. Estd. in April 1979 to aid, promote & co-ordinate research and education in all social sciences including ancient Indian history & culture, economics, business & demography.

Research Socy., Gujarat, Samshodhan Sadan, South Ave., Khar, Bombay 400052.

Rubber Mfrs. Research Assocn., Indian (Min. of Industry, Govt. of India), B/88 Road U, Wagle Estate, Thane 400604.

Rural Devpt.—Instt. of Regional Devpt. Planning, Wardha 442102. A regd. society financed wholly by Govts. which undertakes research for the Govts. & local bodies

Rural Education—Shri Mouni Vidyapeeth, Gargoti, Kolhapur 416001. A research & experimental centre in the field of rural education.

Samshodhana Mandal, Vidarbha (Vidarbha Research Society), West High Court Rd., Nagpur 440001.

Sciences, Maharashtra Assocn. for Cultivation of, 173B, Law College Rd., Pune 411004. Research in biological sciences.

Serum Instt. of India, 283, M. Gandhi Rd., Pune 411001.

Silk & Art Silk Mills Research Assocn. Ltd. (Min. of Industry, Govt. of India), Sasmira Mrg., Worli, Bombay 400025.

Small Industries Devpt. Instt., Agri. College Compound, Pune 411005. State Govt. agency under the Dte. of Industries.

Software Devpt. & Computing Techniques, National Centre for, C/o T.I.F.R., Homi Bhabha Rd., Bombay 400005.

Surgery, Rehabilitation & Research, Socy. for Reconstructive, C/o Tata Dept. of Plastic Surgery, Sir J. J. Group of Hospitals, Bombay 400008.

T.T.G. Foundation, 1st Flr., State Bank Annexe, Bank St., Bombay 400023.

Textile Research Assocn., Bombay (Min. of Industry, Govt. of India), Bombay Agra Rd., Ghatkopar, Bombay 400077.

Training, Development & Technology, Centre for, 108, Bajaj Bhavan, N. Point, Bombay 400021.

Typographical Research, Instt. of (ITR), Krishna Niwas, 4th Flr., Mangalwadi, Girgaum, Bombay 400004.

Typographical Research, Instt. of (ITR), 64, Budhwar, Laxmi Rd., Ganapati Chowk, Pune 411002.

Vehicles Research & Devpt. Instt., Ahmadnagar 414001.

Veterinary Biological Products, Instt. of, Ganeshkhind Rd., Pune 411007. A State Govt. Instt. manufacturing 20 biologicals including life saving vaccines against dreadful livestock & poultry diseases.

Village Industries, Jamnalal Bajaj Central Research Instt. for, Maganwadi, Wardha 442001. Estd. in 1955 for research & investigation for the improvement of tools & techniques of village industries.

Vividhlaxi Audyogik Samshodhan Vikas Kendra, P.O. Box No. 9037, Patel Vanika, Western Express Highway, Goregaon (E), Bombay 400063. Promotion of research in various fields, giving 6 Annual Awards, scholarship to needy research workers, establishment of a well equipped research reference library & research laboratory and research oriented indl. estate in Kaira Dist.

Wool Research Assocn. (Min. of Industry, Govt. of India), Churchgate Chambers, 7th Flr., 5, New Marine Lines, Bombay 400020.

Yogic Research, Trg. and Therapeutic Instt., Kaivalyadhama S M.Y.M. Samiti, Lonavla 410403.

MEGHALAYA

King Edward VII Memorial Pasteur Instt. & Medical Research Instt., Shillong 793001.

ORISSA

Aviation Research Centre, Charbatia 754028, Cuttack Dist.

Pulp & Paper Research Instt., P.O. Jaykaypur 765017, Koraput Dist.

Scientific & Industrial Research, Dalmia Instt. of, Rajgangpur 770017, Sundargarh Dist.

PUNJAB

Advanced Management & Technology, Centre for, 99, Sector 18-A, Chandigarh 160018.

Vedic Research Instt., Vishveshvaranand, Sadhu Ashram, Hoshiarpur 146021.

RAJASTHAN

Soil Conservation Research, Demonstration & Trg. Centre, Kota 324002.

TAMIL NADU

Adi Sankara Advaita Research Centre, 49, Fourth St., Abhiramapuram, Madras 600018.

Diabetes Research Centre, 5, Main Rd., Royapuram, Madras 600013.

Fisheries Research Instt., Central Inland, 51-A/16, Perambur High Rd., Madras 600012.

Historical Research, Tamil Nadu Council of Archives &, Tamil Nadu Archives, 6, Gandhi Irwin Rd., Egmore, Madras 600008.

Industrial & Scientific Research Assocn., 96, Mount Rd., Madras 600018.

Library and Research Centre, Adyar, The Theosophical Socy., Adyar, Madras 600020.

Management, Anna Instt. of, Post Box 3113, Madras 600028.

Management Professionals Assocn., 25, South Boag Rd., T. Nagar, Madras 600017. Carries out a number of research programmes in the area of management devpt. in collaboration with the Management Development Referral Service of the I.L.O., World Bank & Asian Development Bank.

Medical Research Foundation, 18, College Rd., Madras 600006.

Newspaper Development, Research Instt. for, 38, Pantheon Rd., Madras 600008.

Plastic Research Centre, Fibre Reinforced, I.I.T., Madras 600036.

Plastics & Rubber Instt., C/o Bhor Inds. Ltd., Raj Bldg., 730, Mount Rd., Madras 600006

Rural Development & Technology Transfer, Kothari Instt. of, Sembarambakkam, Madras 602107.

Soil Conservation Research, Demonstration and Trg. Centre, Patna House, Ootacamund 643001.

T.T.G. Foundations, 480, Mount Rd., Nandanam, Madras 600035.

Tamil Devpt. and Research Council, Directorate of Tamil Devpt., Kuralagam, 2nd Flr., Madras 600001.

Tamil Isai Sangam, Rajah Annamalai Hall, Madras 600001. Research in Tamil music and to encourage further musical compositions in Tamil.

Tamil Research, International Instt. of, 14/1, Off Sterling Rd., Madras 600034.

Tamil, Sanskrit & Other Indian Languages Research Instt., 16-A, Marshall's Rd., Madras 600008.

Testing Laboratory, Regional (Govt. of Tamil Nadu), Indl. Estate, K. Pudur, Madurai 625007. Physical testing and chemical analysis of raw materials and finished products are carried out with the latest addition of sophisticated instruments like impact tester, tensile testing machine for rubber, ion meter, D.C. polarograph, ultrasonic flaw detector, universal testing machine (40 tonnes capacity), hardness tester (vicker, Brinnel and Rockwell scales), torsion testing machine, spectro photo meter, glossi meter, Ultra Low temperature Bath (+50°C to − 20°C), in addition to furnishing of technical opinions on chemical and other allied industries in this laboratory.

Textile Research Assocn., South India (Min. of Industry, Govt. of India), Coimbatore 641014.

UTTAR PRADESH

Geology, Wadia Instt. of Himalayan, Dehra Dun 248001.

Irrigation Research Instt., U.P., Roorkee 247667.

Music & Performing Arts (RIMPA), Research Instt. for, 'Hemangana', S. 13/131, Tarana Bazar, Shivpur, Varanasi 221002.

Nature Cure Council of Medical Research, 52-57, Gwyne Rd., Lucknow 226001.

Palaeobotany, Birbal Sahni Instt. of, 53, University Rd., Lucknow 226007. Research on fossil plants in its purely scientific aspects and its application to problems of economic geology, coal and petroleum prospecting; Library of 3800 books, 7700 journals, 27709 reprints and 268 microfilms & 39 theses.

Remote Sensing, Indian Instt. of, 4, Kalidas Rd., Dehra Dun 248001.

WEST BENGAL

Sah Indl. Research Instt., 15/171, Gautam Buddha, Rajpath, Sarnath, Varanasi 221007.

Soya Production & Research Assocn., P. Box 75, Bareilly 243001.

Textile Research Assocn., Northern India, Ghaziabad 201001.

Vedic Research Instt., Maharshi, P.O. Shankaracharya Nagar, Rishikesh 249805.

Vedic Sadhana Ashram, Arshi Gurukul, Tapovan, Dehra Dun 248001. Vedic research & education.

Astro-Research Bureau, 17, Brindaban Mullick 1st Lane, Calcutta 700025

Bose Instt., 93/1, Upper Circular Rd., Calcutta 700009. Research work in different fields of life sciences.

Documentation and Research on Children's Literature, Academy for, 4/2, Jadab Ghosh Rd., Calcutta 700061.

Economic & Scientific Research Assocn., India Exchange, Calcutta 700001.

Folk Culture, Research Instt. of, 32, Becharam Chatterjee Rd., Calcutta 700034.

Homoeopathy, Central Research Instt. of, 37, Jodhpur Park, Calcutta 700031.

Jute Industries' Research Assocn., Indian (Min. of Industry, Govt. of India), 17, Taratola Rd., Calcutta 700088.

Medical Aid and Research Socy., Calcutta, 130, Sarat Bose Rd,, Calcutta 700029.

Operational Research Society of India, 7/3, Mandeville Gardens, Calcutta 700019.

Orthopaedically Handicapped, National Instt. for the, B. T. Rd., Bon-Hooghly, Calcutta 700090.

Plywood Industries Research Instt., Indian, 2/2, Biren Roy Rd., West, Sarsuna, Calcutta 700061.

River Research Instt., 11A, Free School St., Calcutta 700016.

Sciences, Indian Assocn. for the Cultivation of, Jadavpur, Calcutta 700032. Fundamental research in different branches of physics and chemistry.

Scientific Research Instt., Usha, 14, Princep St., Calcutta 700072. Research & development in the field of steel wires and wire rope industry, wire drawing machines, alloy steel making and in related sectors.

Socio-Economic Research Instt., C-19, College Mkt., Calcutta 700012.

Tea Research Assocn., 6, Netaji Subhas Rd., Calcutta 700001.

Torsteel Research Foundation in India, 4, Govt. Place North, Calcutta 700001.

SPACE RESEARCH

SPACE research has progressed very fast since the first man-made satellite 'Sputnik' was put into orbit by Russia in 1957. The United States followed up and launched 'Explorer I' into space in 1958. Many other countries, namely, France, Canada, Britain, Japan, West Germany, Italy, China and Australia have joined the space race.

The Indian Space Programme began in 1962 when the **Indian National Committee for Space Research** (INCOSPAR) was formed in the Department of Atomic Energy of the Government of India. In 1969, the **Indian Space Research Organisation (ISRO)** was created to plan, manage and execute the nation's growing activities in Space Science, Space Technology and Space Applications.

The Government of India established the Space Commission in June 1972, backed by the Department of Space (DOS) and entrusted DOS with the responsibility for conducting India's space programme. ISRO functions under DOS as its research and development organisation.

The Space Commission, the Department of Space and the Indian Space Research Organisation have their Headquarters in Bangalore.

The primary aims of the Indian Space Programme are the applications of space science and technology to further national developmental objectives in mass communication and education via satellites; the survey and management of natural resources through remote sensing technology from space platforms and the development of space technology with the maximum degree of self-reliance.

The activities of ISRO are carried out at the following centres. (1) **Vikram Sarabhai Space Centre** (VSSC), Trivandrum, Kerala; (2) **Auxiliary Propulsion System Unit** (APSU), Trivandrum, Kerala; (3) **ISRO Satellite Centre** (ISAC), Bangalore, Karnataka; (4) **SHAR Centre,** Sriharikota, Andhra Pradesh and (5) **Space Application Centre** (SAC), Ahmedabad, Gujarat.

In addition, DOS provides major support to the **Physical Research Laboratory** (PRL) at Ahmedabad which is India's prime centre for research in space sciences. The National Remote Sensing Agency (NRSA) at Hyderabad functions as an autonomous registered society, mainly supported by DOS. NRSA utilises modern remote sensing techniques for assisting in the planning and management of the country's natural resources and provides operational support to various users.

Vikram Sarabhai Space Centre (VSSC): Named after the late Prof. Vikram A. Sarabhai, the founder of the Indian space programme, VSSC encompasses work related to the development of sounding rockets and satellite launch vehicles, scientific and technological payloads, ground-based and vehicle-borne instrumentation and production facilities for propellants and rocket hardware. VSSC is also responsible for building and launching the **Menaka** and **Rohini** (including **Centaure**) series of sounding rockets for meteorological and scientific investigations of the upper atmosphere. India's first **satellite launch vehicle SLV-3,** successfully launched on July 18, 1980, was developed at this centre. This four-stage, solid propellant rocket placed a 35-kg indigenous Rohini Satellite (RS-1) into a near-earth orbit and all the systems of SLV-3 worked satisfactorily. The SLV-3-D2 was successfully launched on April 17, 1983. The vehicle incorporated an improved fourth stage kevlar motor, and introduced 18 major improvements/modifications/optimisations after detailed reviews, simulations and tests. The 22.7-metre-long SLV-3 is being augmented with strap-ons to achieve a vehicle (ASLV) capable of putting 150 kg class satellites into a low earth orbit. As a follow-up to ASLV, development of a Polar Satellite Launch Vehicle (PSLV) capable of putting a 1000-kg class satellite into a 900 km sun-synchronous polar orbit is also on the anvil.

The Space Science and Technology Centre (SSTC) of VSSC is the main research and development laboratory. Solid propellant for the rockets is produced at the Rocket Propellant Plant while the rockets and other hardware are made at the Rocket Fabrication Facility (RFF). The Propellant Fuel Complex (PFC) produces special materials required for the processing of propellants. Liquid propellants for rockets have also been developed on a laboratory scale. An experimental plant for the production of Ammonium perchlorate used as oxidiser in solid propellants has been set up at Alwaye, Kerala.

VSSC operates and maintains the **Thumba Equatorial Rocket Launching Station** (TERLS) which has been recognised by the United Nations Organisation (UNO) as an international facility for sounding rocket experiments to investigate problems of meteorology and ionosphere over the geomagnetic equator running close to Thumba and for other experiments. Since November 1963, when the range became operational, more than 1,500 sounding rockets of different makes have been launched for meteorological, ionospheric, aeronomic and astronomical studies. Scientists from Bulgaria, France, Federal Republic of Germany, Japan, the U.K., the USA and the USSR have participated, in co-operation with their Indian counterparts, in many of these experiments. APSU has the primary responsibility of designing, developing and supplying the propulsion control packages for launch vehicles and satellites.

ISRO Satellite Centre (ISAC) is responsible for the design, fabrication and integration of spacecraft and the development of satellite technology. The first Indian satellite, **Aryabhata,** named after the famous ancient Indian astronomer and mathematician, was designed and fabricated by this Centre. This 360-kg satellite was launched on April 19, 1975 into a near-circular orbit of 600 km at an inclination of 51^0 to the equator from a Soviet Cosmodrome using a Soviet Intercosmos rocket. The spin-stabilised satellite survived in orbit well beyond the design lifetime of six months.

With the launching of Aryabhata, India has acquired indigenous capability in satellite technology, namely, to design and fabricate a space-worthy system and evaluate its performance in orbit, evolve the methodology of conducting a series of complex operations on the satellite and set up the necessary receiving, transmitting and tracking systems besides the establishment of the infrastructure for fabrication of satellite systems.

The second Indian satellite, **Bhaskara**, was launched on June 7, 1979, from a Soviet Cosmodrome, for earth observations. The 444-kg experimental satellite named after an ancient Indian astronomer, was designed and built by ISRO. It contained sophisticated instruments for carrying out remote sensing experiments over India, using TV cameras and microwave radiometers. Bhaskara experiments are useful in the fields of forestry, hydrology, snow-cover and snow-melt, geology, soils, land use and ocean surface studies. The orbital period of the satellite was 95.2 minutes and the inclination 50.7^0. The maximum height of orbit above surface of earth (apogee) was 557 km and the minimum height (perigee) 512 km.

An improved version of **Bhaskara** with a wider scanning was launched on 21st November 1981.

Rohini Satellite (RS/D1) went into orbit on May 31, 1981 at the head of SLV-3-D1 launcher.

Rohini Satellite (RS/D2): The 41.2 kg Rohini D-2, third in the Rohini series, was put into orbit by the SLV-3 vehicle on April 17, 1983. The Rohini D-2 carries a smart sensor, capable of classifying ground features such as water, vegetation, bareland, cloud and snow through onboard processing of data.

Stretched Rohini Satellite Series (SROSS): The SROSS project envisages the development of spacecraft of 150-kg. class for launch on ASLV and on-orbit operations of spacecraft and experimental payloads pertaining to scientific, technological and remote sensing missions. Both 3-axis-stabilised and spin stabilised configurations are envisaged.

Apple Satellite: India's first three axis body stabilised geostationary experimental satellite, Apple, developed here was launched on 19th June 1981 using the third Ariane launch vehicle of the European Space Agency (ESA). The spacecraft weighing about 670 kg will provide India expertise in the technology necessary for the building and operation of geo-stationary satellites. While the communication payloads of the satellite were built at SAC (Space Applications Centre), important subsystems like ABM (Apogee Boost Motor) and secondary propulsion systems were built at VSSC. Under Apple project, a series of experiments aimed at speeding up the tempo of space communications in India is being carried out.

Indian Remote Sensing Satellite (IRS): Space-based remote sensing of natural resources being one of the major goals of ISRO, efforts are underway to develop an operational 900 kg class Indian Remote Sensing Satellite (IRS) by mid-eighties. The spacecraft will need to be placed in sun-synchronous near polar orbit at a nominal altitude between 550 km & 1,000 km, the orbit depending on the mission requirement. An agreement has been signed between ISRO and Licensintorg of USSR for the launch of first IRS on a Soviet launch vehicle.

SHAR Centre: The SHAR Centre at Sriharikota island, off India's east coast, is about 100 km. north of Madras city. It is being developed as a range for launching bigger satellite launch vehicles like ASLV and PSLV. India's first satellite launch vehicle SLV-3 was launched from here.

A comprehensive test facility for conducting various ground tests of rocket motors and subsystems has been set up at Sriharikota. Also, it has a large propellant production plant called SPROB. This is being augmented for PSLV programme.

The ISRO Telemetry, Tracking and Command Network (ISTRAC) which has been set up to manage the telemetry and telecommand network of ISRO has supported all ISRO missions such as Aryabhata, Bhaskara and RS-1 with its network stations at SHAR Centre, Ahmedabad, Car Nicobar and Trivandrum.

Space Applications Centre (SAC) is engaged in the planning and execution of the space application projects of ISRO. Its objective is to apply space science and technology to practical uses. To achieve this goal SAC has taken up work in telecommunications and television broadcasting and reception via satellites; use of remote sensing techniques to survey natural and renewable earth resources; studies in space meteorology and satellite geodesy.

This Centre conducted the **Satellite Instructional Television Experiment** (SITE), the year-long (August 1st, 1975 to July 31st, 1976) experiment in direct broadcast of television programmes via the NASA satellite, ATS-6. During the experiment, community TV sets were installed in 2,400 villages in Rajasthan, Bihar, Orissa, Madhya Pradesh, Karnataka and Andhra Pradesh and instructional programmes were beamed directly via the satellite.

Under an agreement between ISRO and the Symphonie organisation, one of the two transponders aboard the Franco-West German Symphonie satellite with a bandwidth of 90 MHz, was made available for Indian experiments in satellite telecommunications for two years, beginning from June 1977. Known as the **Satellite Telecommunications Experiments Project** (STEP) this two year project was taken up by ISRO in collaboration with the Posts and Telegraphs (P & T) Department of the Ministry of Communications. Under STEP, experiments in remote area communications using transportable terminals, radio-networking, emergency communications, digital communications, multiple access, integration of satellite circuits into terrestrial net-works and multiple audio-video transmissions were conducted. The project was mainly aimed at providing a system test of geo-synchronous communication satellite and to sharpen India's expertise in the design, development, fabrication and operation of communication systems involving geo-stationary satellite.

The ground network for STEP consisted of the following: The earth stations at Ahmedabad, Delhi and Madras, Transportable Remote Area Communication Terminal (TRACT) and the Emergency Communication Terminal (ECT).

Except for the Madras Earth Station, the modification, fabrication and operation of all other earth stations were the responsibilities of ISRO. ISRO was also responsible for fabricating the antenna system and the high-power amplifier for the Madras Earth Station. TRACT was fabricated at SAC and was tested with ATS-6 in July 1976. ECT, a miniaturised and ruggedised communication system, is mounted on a jeep in such a way that it can be detached easily and the whole unit air-lifted in emergencies like natural calamities when the terrestrial communication system is disrupted.

One important area of SAC activity is the remote sensing of natural and renewable resources. ISRO and the Indian Council of Agricultural Research (ICAR) conducted, during 1974-75, a joint experiment called the **Agricultural Resources Inventory and Survey Experiment** (ARISE), employing remote sensing techniques, to assess crops and land-use pattern in Anantapur district of Andhra Pradesh and Patiala district of Punjab.

The remote sensing techniques are being applied for a wide range of purposes such as collection of data relating to agriculture (crop vigour, crop census, classification of soil, etc.), detection of minerals, management of water resources, forest inventories and meteorological studies. SAC is developing sensors for use from balloons, aircraft and spacecraft to collect data for these applications. Some of these sensors are: infra-red scanner, multispectral scanner, microwave radiometer and the vidicon TV camera.

About ten remote sensing experiments have so far been conducted to study aspects of agriculture and landscape features over sites in Pune, Bombay, Sriharikota island, Jaipur, Bangalore, Anantapur district in Andhra Pradesh, Patiala district in Punjab and Panchmahals district in Gujarat.

INSAT: The Indian National Satellite System (INSAT) is a joint venture of the Dept. of Space, the ministries of Communications, Tourism and Civil Aviation and Information and Broadcasting. The INSAT system is multi-purpose operational space system providing telecommunications, meteorology and television services from a common satellite in geostationary orbit. The proposed system envisages a very significant telecommunications component providing for long-distance telephony, communication with remote areas and islands and emergency communications. The meteorological capability includes 24-hour observation of weather system, data collection and relay from remote, unattended platforms and a disaster warning. Television capability relates both to direct TV broadcasting from satellite to community TV sets in rural areas and to radio networking.

The two INSAT-1 spacecraft are being provided by Ford Aerospace Communications Corp. (FACC) under a contract from DOS.

The first INSAT-I satellite, INSAT-1A, was successfully launched on 10th April 1982. However, a series of malfunctions/anomalies in orbit led to its deactivation on 6th September 1982. The restoration of INSAT-1 system operating capability has been restored with the launching of the INSAT-IB Satellite in 1983.

Ahmedabad Earth Station (AES): SAC operates the Ahmedabad Earth Station (AES), Ahmedabad, which is an international Centre for training in satellite telecommunications technology.

STARS: The Satellite Tracking and Ranging Station (STARS) came into operation on January 23, 1977 at Kavalur in Tamil Nadu. In addition to the tracking cameras there is a Ranging Laser at the station. This facility is used to determine orbits of satellites. The data collected by this station will be useful for geodetic purposes.

PRL: The Physical Research Laboratory has been the cradle of space science in India and is being further developed as a national centre in this field. Its activities are supported mainly by DOS. PRL conducts basic research in many areas of space sciences for understanding the structure and dynamics of the earth's upper atmosphere, the solar terrestrial relationships, plasma physics and astrophysical problems. For these studies, data are collected through laboratory experiments, ground-based observations and measurements with rocket-borne instruments. PRL participates in many rocket-borne experiments at TERLS. It also uses data received from various orbiting scientific satellites of other countries. Investigations on lunar samples and meteorites and laboratory studies of plasma for understanding certain ionospheric phenomena and astrophysical problems are also conducted. Climatological, archeological and hydrological studies are also undertaken.

Sponsored Research: Various universities and academic institutions in the country are identified and encouraged by ISRO to undertake research and development studies in Space Science, Space Technology and Applications relevant to the Indian Space Programme.

ENERGY

ENERGY is an essential input to all productive economic activity and the process of economic development inevitably demands increasingly higher levels of energy consumption. The present per capita commercial energy consumption in India is only about a tenth of the global average reflecting the country's low level of income. While India, in common with many developing countries, consumes energy in a variety of forms ranging from electricity obtained from nuclear fuels to agricultural waste and animal dung, the pattern of commercial energy consumption is characterised by a high degree of oil dependency, the share of oil products (measured in coal replacement terms) being close to fifty per cent. Just when the Indian economy had managed to adjust itself to the oil price increases of 1973-74 there has been a threefold increase in oil prices in the last years. Apart from the heavy strain this will cast on the country's balance of payments, even the physical availability of oil in the international markets will pose a problem in the years to come. This means that if India's plans of economic growth are not to be hampered by inadequacies of energy supply, reduced dependence on imported oil has to be a key element in our development strategy. The main elements of such strategy are as follows:

(1) Accelerated exploitation of domestic conventional energy resources—oil, coal, hydro and nuclear power; (2) management of oil demand; (3) energy conservation: (4) exploitation of renewable sources of energy like energy forestry and biogas, specially to meet the energy requirements of rural communities: and (5) intensification of research and development in emerging energy technologies.

The energy sector of the plan is geared to implement this basic strategy.

The total commercial energy consumed increased five-fold during the last 25 years. Between 1953-54 and 1975-76, the annual growth rate in commercial energy consumption was 6.78 per cent as against the GDP growth rate of 3.68 per cent, the GDP-energy elasticity co-efficient has remained stable at around 1.8 and is high compared to developed countries. Firewood, agricultural waste and animal dung (which are commonly referred to as non-commercial forms of energy) continue to contribute a substantial proportion of the total energy consumed in the country, though reliable data on the extent and pattern of their use are not available. Rough estimates indicate that between 40 and 45 per cent of total energy consumed is still accounted for by non-commercial fuels.

The household sector in India is the largest consumer of energy accounting for about 50 per cent of the total energy consumption. Most of the energy used in this sector is in the form of non-commercial energy. Of the total of 5.7 lakh villages, about 2.5 lakh villages have been electrified, but the percentage of households electrified is about 14 per cent only.

The industries sector has the largest consumption of commercial energy (about 38.5 per cent). What is more, the intensity of energy use in this sector has been rising sharply mainly on account of higher electricity consumption. The electricity consumed per rupee of value added went up sharply from 0.54 kwh in 1960-61 to 1.02 kwh in 1975-76. The relatively high proportion in the industry mix of power-intensive primary metal industries in the initial stages of industrialisation and substitution of other energy forms by electricity appear to have controlled to the high electricity intensity.

Conventional energy technologies are characterised by long gestation periods. It takes even longer to bring about significant changes in the pattern of energy consumption. Appropriate policy and investment decisions have therefore to be taken without loss of time if the country is to meet the challenge which the energy problem will pose in the coming decades. This concern is reflected in the increased allocation made in this Plan for accelerated exploitation of India's demestic resources of oil, coal, hydro and nuclear power. The scale of the energy forestry and bio-gas programmes is being expanded sharply. Funds have also been provided for a more intensified research, development and demonstration effort in the area of renewable energy technologies, as also for a more efficient harnessing of animal energy. The details of the programmes and schemes are set out in the sections which follow. As for measures of energy conservation, the need is not so much for Plan investments as for appropriate fiscal policies and establishment of institutional mechanisms for regulation, extension and training. These will be pursued during the Plan period.

IRRIGATION

The main thrust of the development policy for irrigation sector during the Sixth Five-Year Plan (1980-85) is towards achieving the target of 113 million hectares of gross irrigation potential in the country by the turn of the century. Of this 58 million hectares have to be contributed by major and medium irrigation projects and the rest by minor surface irrigation works and groundwater. So far, however, 24.48 million hectares of irrigation potential has been created by major and medium schemes upto June, 1982, leaving a balance of 29.5 million hectares and 32.85 million hectares by minor schemes leaving a balance of 22.15 million hectares.

The Sixth Five-Year Plan, target for creation of additional irrigation potential is 13.74 million hectares in the five year period, i.e. about 2.75 million hectares on an average every year.

Water potential: India is endowed with substantial water resources. The total water resources of the country are assessed at 178 million hectares metres (1,442 MAF). However, on account of limitations of physiography, topography, geology, dependability and the present state of technology, only a part of this can be utilised.

The land area that can ultimately be irrigated has been assessed to be 113 million hectares as against possible gross cropped area of 200 million hectares on full development of irrigation potential. Thus, on present assessment, it may not be possible to provide irrigation facilities to the entire cultivated area in the country. National Water Perspective envisaging construction of storage reservoirs of optimal capacity and of inter-linking the various river systems has been evolved which can enable irrigation of an additional 35 million hectares, generation of 40 million K.W. of power and provide inland navigation, flood control and other multipurpose benefits.

Progress of irrigation development: Prior to 1951 the total area irrigated in the country was 22.6 million hectares (9.7 million hectares from major and medium irrigation projects and 12.9 million hectares from minor schemes both surface and ground). The irrigation potential increased to 52.1 million hectares by the end of the Fifth Plan in 1977-78 (out of which 24.8 million hectares was from major and medium irrigation projects and 27.3 million hectares from minor schemes). Between 1978 and 1980, an additional potential of 4.5 million hectares was created (1.8 million hectares from major and medium irrigation and 2.7 million hectares from minor schemes). The aggregate irrigation potential to the end of 1979-80, i.e. the beginning of the Sixth Plan, was 56.6 million hectares. During 1980-82, an additional potential of 4.7 million hectares has been created, bringing the aggregate to 61.3 million hectares. The target of 1982-83 is 2.345 million hectares.

Programme for 1982-83: During 1982-83, an outlay of Rs. 1,582 crores was approved by the Planning Commission for major and medium irrigation schemes with a target of creating an additional potential of 0.895 million hectares. A review of the irrigation development so far and the programme for 1982-83 was taken during August-September, 1982. It is anticipated that the target of 0.895 million hectares of additional potential will by and large be achieved.

Minor irrigation: Minor irrigation programme includes ground water development through construction of dugwells, private shallow tubewells, deep public tubewells, boring and deepening of dugwells etc. and small surface water development works through diversion schemes, storage schemes and lift irrigation projects, each having cultivable command area not more than 2000 hectares.

POWER

Resources of Power Development: *Coal:* Coal is the most important source of commercial energy in India. Assessment of coal reserves of the country is being made on a continuous basis by the Geological Survey of India through regional mapping and exploratory drilling. Various agencies, state governments and private parties also undertake assessment of reserves in some coal fields. Taking into account the development in the technologies and emerging energy situation the total coal reserves of the country have been estimated at 111,628 million tonnes comprising of 89,075 million tonnes of non-coking variety and 22,553 million tonnes of coking variety.

The use of coking coal is confined to metallurgical purposes. The up-grading of coking coal for use in the Steel Plant leaves behind considerable quantity of middlings which are used mainly for power generation. The poor quality of non-coking coal makes it suitable mainly for power generation with power stations close to pit-heads. The production of coal is anticipated to be stepped up to 165 million tonnes by the end of the Sixth Plan.

Oil and Natural Gas: Though Indian has a large sedimentary basin and prognostic studies of available geological data have indicated sizable reserves of oil and gas, the established reserves are still small. The present balance recoverable resources of crude oil are placed at 370 million tonnes and that of natural gas at about 350 million cubic metres.

It is estimated that the demand for petroleum products may reach a level of 45.5 million tonnes by 1984-85. While the exploration and development of new wells would be given greater emphasis, it is anticipated that we would continue to be dependent on import of oil in the coming years to a large extent. Therefore, along with increased emphasis on indigenous development the policy also envisages curbing demand for oil by suitable conservation measures and taking action to switch over to alternative fuels, wherever possible.

Hydro Power: Hydro-electric projects have a very significant role to play in the context of the massive power development programme which has been envisaged, both from the point of view of providing replenishable, clean and reasonably cheap source of energy and from the point of view of exploiting the enormous potential available in the various river valley systems. The Himalayan Region and the North-Eastern Region of the country hold very good prospects for hydro power development. Similarly with the award of the Narmada Waters Disputes Tribunal, it is likely that potentially good sites in this river system would become available for exploitation. In the Southern region of the country also there are some good sites that remain to be exploited.

Re-assessment of hydro potential: The hydro-electric potential in this country was originally assessed in 1953-59 by the Power Wing of the erstwhile Central Water & Power Commission at about 42 million kW at 60 per cent load factor and annual generation of 222 TwH. This study did not include assessment of secondary energy as well as the theoretical potential. Subsequently, in October 1977, a scheme for re-assessment of the hydro potential in the country has been sanctioned at a cost not exceeding Rs. 3 million. This scheme aims at the re-assessment made in 1953-59 and while doing so it is proposed: (a) that the annual energy contribution both for dependable and average conditions would be computed, (b) that possible pumped storage schemes would be identified and (c) the gross theoretical potential as well as economic potential would be determined. On a rough calculation on the basis of data compiled, the total hydro potential in the country has been tentatively assessed to be over 45 million kW at 100 per cent load factor, 75 million kW at 60 per cent load factor and nearly 150 million kW at 30 per cent load factor.

Investigations: The bulk of the hydro potential in the country is available in the North-Western and North-Eastern areas, particularly, in the states of Himachal Pradesh, J & K and North-Eastern States. The survey and investigation of hydro-electric schemes are generally done by the state authorities. However, the state authorities have not been able to accord adequate priority in this regard due to the constraints on availability of fiscal resources and technical expertise. In order to combat this problem and to have a shelf of well investigated projects, the Central Government has also been participating in the programme of investigations of hydro-electric sites in J & K, Arunachal Pradesh, Sikkim and Mizoram. Investigations in these states are being carried out by the Central Water Commission (Department of Irrigation), NHPC and North-Eastern Electric Power Corporation. In addition, the state governments are also being given Central assistance in the form of grants-in-aid for the survey and investigation of hydro-electric projecs in hilly and backward areas.

Presently, 70 hydro-electric schemes are in different stages of implementation. It is proposed to increase the proportion of hydro power in the installed capacity by giving more priority to hydro projects both in the state sector as well as in the Central sector. In this connection, 87 new hydel projects with total installed capacity of 16963.5 MW have been indentified for construction during the period 1980-85.

In order to expedite construction of hydro-electric projects, close and effective monitoring systems have been set up in CEA, NHPC and the Ministry of Energy. It is also proposed to take up large hydro-electric projects in the Central Sector for execution by the NHPC and North-Eastern Electric Power Corporation (NEEPCO), which are being strengthened and streamlined with a view to expediting the construction of these projects. The National Hydro-electric Power Corporation is currently executing the following projects:

Project (State)	Installed capacity
Baira Suil (HP)	3 × 60 MW
Salal (J & K)	3 × 115 MW
Loktak (Manipur)	3 × 35 MW

The North-Eastern Electric Power Corporation is executing the Kopili (Assam) project with an installed capacity of 2 × 50 MW + 2 × 35 MW.

In addition to the above, the under-mentioned hydro-electric projects have been taken up in the Central sector for investigation/execution through the National Hydro-electric power Corporation:—

Project (State)	Installed capacity (MW)
i) Koel Karo (Bihar)	710
ii) Dul Hasti (J & K)	390
iii) Kol Dam (HP)	600
iv) Chamera (HP)	640
v) Parvati (HP)	1,900
vi) Eastern Ramganga (UP)	80
vii) Dhauliganga (UP)	900
viii) Gauriganga (UP)	450

The north-Eastern Electric Power Corporation is also investigating the under-mentioned four projects in the North-Eastern region:—

Project (State)	Installed capacity (MW)
i) Ranganadi (Arunachal Pradesh)	500
ii) Damwe (Arunachal Pradesh)	400
iii) Papu (Arunachal Pradesh)	80
iv) Tuivai (Mizoram)	200

Nuclear Power: The nuclear power development in the country was initiated at Tarapur (420 MW) based on the boiling water reactor technology which requires enriched uranium. Subsequently, three nuclear power plants, with pressurised heavy water reactors using natural uranium were taken up in Rajasthan (440 MW), Kalpakkam (470 MW) and Narora (470 MW). The 2 x 220 MW units at RAPP and the Kalpakkam unit have been commissioned.

During the Sixth Plan discussion, the Planning Commission agreed in principle for commitment of work on six more reactors of 235 MW each during the current Plan period. Financial sanction for two units of 235 MW each at Kakrapar in the Western Region has also been accorded.

Geo-Thermal Energy: The activities in the geo-thermal field in the country are directed towards locating promising hydro-thermal reservoirs for power generation and other possible uses of the heat energy. Based on the preliminary geological and geo-chemical studies, two experimental projects, viz., one at Parbati Valley in Himachal Pradesh with the assistance of UNDP and the other called 'Puga Geothermal Assessment Project' in the Puga Valley in J & K have been undertaken to make a detailed assessment of geo-thermal potential.

Drilling rigs and accessories have since been shifted to the drilling site in the Parbati Valley. With a view to obtaining a plausible three-dimensional model of the Manikaran geo-thermal system, large-scale geo-thermal mapping was carried out over an area of 0.7 sq. km. in the Manikaran Area. Since the expected resource temperature of about 150^0 C is not considered adequate for direct power generation using geo-thermal fluids, the feasibility of generating power using binary cycle scheme is being examined. During 1982-83, direct applications of geo-thermal energy for local uses are proposed to be studied.

Geo-scientific investigations including geological mapping, hydro-geological mapping, plane-table mapping, glaciological studies were continued in Puga Valley during 1981-82. Major items of equipment for geo-thermal drilling have also been shifted to the site. During 1982-83 it is proposed to continue the geo-scientific investigations.

Based on the preliminary investigations and taking into account the recommendations of a UNDP expert, the possible area where tidal range is fairly high and where tidal power could be developed are in the Gulfs of Kutch and Cambay along with the West Coast and in the Sunderban areas along the East Coast. A proposal to take up investigations and studies to establish the feasibility of power generation from tidal waves in the Gulf of Kutch at an estimated cost of Rs. 218 lakhs has been approved.

The scheme is estimated to afford an energy benefit of 1,600 GWH p.a. with an installation of 600 MW. The investigation was formally inaugurated on 9th January, 1982 by the Minister of State for Energy and the work on the scheme has already commenced. It is also proposed to get necessary consultancy assistance from the Electricite de France (EDF) in Paris which has the necessary expertise in the field in view of its experience in the only major tidal project, viz., La-rance.

Wind Power: Initial studies and investigations to examine the possibilities of using wind energy in India indicate that though the energy of the wind is of no practical value over the greater part of the country yet it should be possible to make use of wind mills for irrigation and certain places in the Peninsular India. Research and development activities in this area are also being undertaken by the Commission for Additional Sources on Energy. Several wind mills have been established under an integrated rural development project in the Eastern U.P. in collaboration with the Government of the Netherlands. It was thought desirable to continue the integrated rural development project and also to take up R & D activities for the development of wind power for application in rural areas. However, as per the evaluation report of the projects, the extension programme proposal related only to the manufacture and sale of the wind mills. A scheme is proposed to be worked out in consultation with the CPRI for undertaking R & D activities for application of wind power in rural areas.

Development of a National Power Grid: The Union Cabinet has approved, in principle, the formulation of a National Power Grid. The successful operation of the National Power Grid will depend on the integrated operation of the existing regional grids and the speedy construction of as many EHV lines (at least of 400 kV) as possible to evacuate the power which will soon start flowing from the gigantic super thermal power stations. To begin with, the following 400 kV inter-state/inter-regional lines and the associated works have been included in the Central sector project with the National Thermal Power Corporation (NTPC) as the implementing agency:

	Approximate Route Length Km.
1. (a) Ramagundam-Mangur 400 kV S/C line on D/C Towers	190
(b) Mangur-Vijayawada 400 kV S/C line on D/C Towers	160
(c) 400 kV line bay at Ramagundam	—
(d) 400 kV grid sub-station at Mangur with 315 MVA 400/220 kV Interconnecting transformer	—
(e) 400 kV grid station at Vijayawada with 315 MVA 400/220 kV Interconnecting transformer	—
2. (a) Vijayawada-Red Hills 400 kV S/C Line	460
(b) Line bays at Vijayawada and Red Hills with line reactors etc.	—
3. (a) Chandrapur-Ramagundam 400 kV D/C Line	158
(b) Terminal bays at Chandrapur and Ramagundam	—
4. (a) Waidhan-Singrauli 400 kV S/C Line	10
(b) 400 kV Line bay at Singrauli	—
(c) HVDC back to back station at Waidhan complete with 500 MWDC converter station 400 kV AC entrances, etc.	—

Several other 400 kV transmission lines associated with the different super thermal power stations are also under construction by NTPC. The National Hydro-Electric Power Corporation (NHPC) and North-Eastern Electric Power Corporation (NEEPCO) are also engaged in the construction of a number of 132 kV and 220 kV transmission lines. Many more EHV lines will be constructed in future by different state electricity boards and Central undertakings. The integrated operation of these lines along with existing lines in the different Regional Grids will in course of time make the National Power Grid a reality.

There have been interchange of power and electrical energy exchanges between the constituent systems of the Regional Grids since 1977-78. These are 1977-78: 7731 million units; 1978-79: 7,878 million units; 1979-80: 6,800 million units; 1980-81: 6,745 million units; 1981-82 (upto Sep., 1981): 4,089 million units.

The total inter-regional exchanges of energy were 784 MU in 1979-80 and 1,078 in 1980-81. During the current year (April-September, 1981) the total inter-regional exchange was 505 MU.

The National power grid will facilitate flow of power from surplus areas to deficit areas and thus help in the optimum utilisation of the power generated in the country.

For the integrated operation of the Regional Grids, Regional Load Despatch Centres (RLDCs) are being set up in different regions. In the Southern region, a permanent RLDC has already been established. Phase-I of the project is already in operation and Phase-II of the project is under implementation. Interim Load Despatch Centres are functioning in the Northern, Western, Eastern and North-Eastern Regions. These Centres are monitoring the Regional Grid operation and assisting in exchange of power among the state systems. The work on setting up permanent RLDC projects with latest computer-systems for the Northern, Western and Eastern regions is in progress. The equipment for these RLDCs are being obtained under IDA Credit 604. IN.

TABLE 1: GROWTH OF POWER INDUSTRY

Year	Installed capacity (MW) (@)	Energy generation (GWH)	Per capita consumption (KWH)
1950	2,302	7,514	18
1960-61	5,654	20,123	38
1970-71	16,271	61,212	90
1973-74	18,456	72,796	98
1979-80*	31,307	112,820	131
1980-81	33,141	119,226	135
		Projections	
1984-85	51,192	191,000	212
1989-90	82,000	310,000	320

*—provisional.

(@)—includes figures of non-utilities also.

TABLE 2: GROWTH RATES (%)

Year	Capacity	Energy
1950 to 1960-61	10.5	10.4
1960-61 to 1970-71	12.2	11.8
1970-71 to 1978-79	7.6	7.6
1978-79 to 1984-85	10.5	11.3
1984-85 to 1989-90	9.9	10.1

TABLE 3: EXPENDITURE INCURRED AND POTENTIAL CREATED FROM MAJOR AND MEDIUM IRRIGATION PROGRAMMES DURING VARIOUS PLANS

Period	Expenditure (Rs. million)	Additional irrigation potential created (Million hectares)
Pre-Plan	Not available	9.7
1st Plan (1951-56)	3000	2.5
2nd Plan (1956-61)	3800	2.1
3rd Plan (1961-66)	5810	2.3
Annual Plan (1966-69)	4340	1.5
4th Plan (1969-74)	12370	2.6
5th Plan (1974-78)	24420	4.1
Annual Plan (1978-80)	20720	1.8
Total	74460	26.6
Sixth Plan (1980-85)	84480	5.7
1980-81	12100	0.9
1981-82	14250	1.0

ATOMIC ENERGY

National Programme:

THE Indian atomic energy programme was launched chiefly to supplement the limited conventional energy resources to meet the long-term electricity needs of the country, to produce nuclear power and to utilise nuclear techniques in agriculture, industry, medicine and other areas.

The **Atomic Energy Commission** was constituted in 1948 as the policy-making body of the Government of India for the development and utilisation of atomic energy. In 1954 the Government of India set up the Department of Atomic Energy.

The Department of Atomic Energy functions directly under the Prime Minister. The chairman of the Atomic Energy Commission is also the Secretary to the Department of Atomic Energy and is responsible for the administration of the Department. The Constitution of the Commission was changed in 1958, vesting it with full executive and financial powers of the Government of India. Dr. H. J. Bhabha was the first chairman of the Commission.

The Atomic Energy Establishment was formally inaugurated by Jawaharlal Nehru in 1957 and renamed the Bhabha Atomic Research Centre (BARC) after its founder and the first director Dr. H. J. Bhabha in 1967. (The Director of BARC is an ex-office member in charge of research and development.) It is now the largest scientific organisation in India.

The production of nuclear fuels, control instruments, reactor components, research equipment, high purity metals and materials required for the atomic energy programme is undertaken either under the aegis of the Department of Atomic Energy or by the industry with technical assistance from the Department.

Over the years, the Department has placed considerable emphasis on the following areas in addition to its main task of nuclear research and development producing commercial nuclear power and applying nuclear techniques to agriculture, industry, medicine etc. These activities are:

(a) Training and development of personnel in different fields of science and technology related to the atomic energy programme.
(b) Development of the nuclear equipment/industry, both in the public and private sectors.
(c) Transfer of technology from research centres to industry in several non-nuclear areas.
(d) Planning and implementation of pilot level and semi-commercial demonstration projects to extend the benefits of atomic energy in industry, medicine, agriculture and research.
(e) Assistance, both financial and otherwise, to various academic and other institutions for promoting research and other activities that are beneficial to the atomic energy programme.

RESEARCH AND DEVELOPMENT

The Bhabha Atomic Research Centre, Trombay, which was set up as the Atomic Energy Establishment in 1957 and renamed in 1967, is the national centre for research and development work in nuclear energy and related disciplines. Its facilities include research reactors *Circus* (40 MW) and *Apsara* (1MW), a 5.5 MeV Van de Graaff accelerator, a number of computers and various special laboratories. A zero energy thermal reactor *Zerlina* and a fast critical facility *Purnima* also have been used for a number of experimental purposes. It also has a uranium metal plant, a fuel element fabrication plant, a plutonium plant, radiological laboratories to handle radio isotopes, facility to fabricate plutonium mixed fuel elements, etc.

A 100 MW thermal research reactor R-5 has been constructed and is expected to be in operation as soon as the commissioning of the various systems is completed.

The **Variable Energy Cyclotron** has been set up at Bidhan Nagar, Calcutta, by the Bhabha Atomic Research Centre. It is a national facility for advanced work in nuclear physics and for the controlled direct irradiation of biological and agricultural products.

The High Altitude Research Laboratory, Gulmarg of the Bhabha Atomic Research Centre which was set up in 1963, provides facilities for high altitude research to all scientific institutions and universities in the country.

The **Nuclear Research Laboratory,** Srinagar, is devoted to applied research in nuclear and radiation physics.

The Reactor Research Centre has been set up at Kalpakkam, Tamil Nadu, adjacent to the Madras Atomic Power Station. The research and development efforts have been in the area of fast reactor technology, sodium technology, metallurgy, fuel reprocessing engineering and material science. The major projects undertaken by the Centre are a Fast Breeder Test Reactor, the Materials Development Laboratory, Radiometallurgy Laboratory and Radiochemistry Laboratory.

The Reactor Research Centre has a large computer system to meet the R & D requirements.

The Gauribidanur Seismic Station (of the Bhabha Atomic Research Centre), 80 kilometres north of Bangalore, was set up towards the end of 1965 in collaboration with the U.K. Atomic Energy Authority. It has an array of 20 short-period seismographs and 3 long-period seismographs deployed over an area of 25 km × 25 km. It helps in the detection and identification of underground nuclear explosions and also facilitates seismic research.

Aided Institutions: The 3 aided institutions which receive grants from the Department of Atomic Energy for their research and development plan schemes are the Tata Institute of Fundamental Research, the Tata Memorial Centre, both at Bombay and the Saha Institute of Nuclear Physics at Calcutta.

The **Tata Institute of Fundamental Research** was founded in June 1945. It is the national centre for nuclear science and mathematics. It has two schools: the School of Mathematics and the School of Physics (experimental physics, theoretical physics, astrophysics, geophysics, computer science, molecular biology and radio astronomy).

The institute has established a National Computation Centre, a Balloon Fabrication and Flying Facility, a Tritium Laboratory for hydrological studies and a new liquid Helium Plant. At the Balloon Facility, Hyderabad the new launch vehicle built during 1977-78 has been further modified to launch heavier payloads.

The **Tata Memorial Centre** comprises two institutions: The Tata Memorial Hospital and the Cancer Research Institute.

It is one of the foremost cancer treatment centres in the country and conducts extensive research on cancer. The Centre proposes to acquire sophisticated equipment and intensify research in cancer. It is recognised as a post-graduate teaching institute by the University of Bombay.

The **Saha Institute of Nuclear Physics** was formally opened in June 1950. Its fields of research include: electron microscopy, EPR spectroscopy, mass spectrometry, microwave absorption spectroscopy, molecular biology, NMR spectroscopy, NCR spectroscopy, nuclear activation, nuclear reactions, nuclear spectroscopy, radiochemistry, solid state physics, structural crystallography, technical physics and theoretical nuclear physics.

It aims at development of polarised target facilities, development of high power Hd. glass laser, and studies of radioactive isotopes etc.

POWER

Nuclear power provides an alternative and long-lasting source of electricity and its role is expected to enlarge with installation of more PHW (Pressurised Heavy Water) reactors and with the development of Fast Breeder Technology. The total nuclear power generation capacity in 1983 was 860 MW.

To meet the requirements of heavy water for the PHWR atomic power stations, following heavy water plants have been set up:

1. Heavy Water Plant, Tuticorin: The plant, designed to produce 71.3 tonnes of heavy water per annum became operational in July 1978. Its annual production depends on the availability of synthesis gas from the Southern Petrochemical Industries Corporation and adequate power supply.

2. Heavy Water Project, Baroda: Designed to produce 67.2 tonnes of heavy water per year had become operational in April 1977, but had to be closed for extensive repairs as a result of fire and explosion in the plant in December 1977. The operation of the plant was also affected by the cyclone in November 1982.

3. Heavy Water Plant, Kota: This plant with a capacity to produce 100 tonnes per year of nuclear grade heavy water is being commissioned.

4. Heavy Water Plant, Talcher: This plant is designed to produce 62.7 tonnes of heavy water per year and is linked with the Ammonia Plant of Fertiliser Corporation of India at Talcher. The commissioning of this plant is adversely affected by the intermittent operation of FCI's ammonia plant and by frequent power cuts.

5. Heavy Water Plant, Nangal: This plant was commissioned in August 1962. It has an annual capacity of about 14 tonnes. This plant is shut down whenever a total power cut is imposed.

Nuclear Fuel Complex, Hyderabad: For fabricating the fuel bundles, the Coolant and the Calandria Tubes required for the nuclear power stations in the country, the Department has established the Nuclear Fuel Complex at Hyderabad. The Ball Bearing Steel Tubes Plant is designed to produce 21,000 metric tonnes of S.S., Tubes for the Ball Bearing Industry. and 3,000 metric tonnes of drill pipes for O.N.G.C. The expansion of natural uranium fuel fabrication facilities is being taken up to meet the fuelling needs of the power reactors already under construction in order to achieve self-sufficiency in this regard.

The **Power Reactor Fuel Reprocessing Plant**, Tarapur, has been built by the Bhabha Atomic Research Centre. This plant processes the irradiated fuel from the Tarapur and Rajasthan Atomic Power Stations.

The **Atomic Minerals Division** is responsible for surveying, prospecting and exploratory development of atomic minerals required for the atomic energy programme.

The **Tarapur Atomic Power Station**, 100 kms. north of Bombay, is the first atomic power station in India. It was built by General Electric Co. of U.S.A. It has two boiling water type reactors fuelled by enriched uranium with a total output of 420 MWe and has been supplying power to Maharashtra and Gujarat since October 1969.

The **Rajasthan Atomic Power Station** at Rana Pratap Sagar has two units. The first unit with a capacity of 220 MWe is in commercial operation since Dec., 1973. The second unit started commercial operation since April, 1981.

The **Madras Atomic Power Station**, about 80 kms. south of Madras has two Candu-type units. The first unit is ready to receive heavy water and the second unit is nearing completion.

The **Narora Atomic Power Station,** U.P. consists of two units. The first unit of the station is expected to be completed in 1987 and the second unit in 1988.

Financial sanctions for two 235 MWe units at Kakrapar in Gujarat has been accorded. The two units are expected to be completed in 1991 and 1992.

Beyond Kakrapar four more 235 MWe units have been included in the Sixth Plan proposal.

PUBLIC SECTOR UNDERTAKINGS

The **Indian Rare Earths Ltd.** was incorporated on 18th August 1950, with its registered office at Bombay with the object of processing monazite recovered from the beach sand deposits in Kerala and Tamil Nadu to produce rare earths chloride as main product and a compound containing uranium and thorium as a co-product at their Rare Earths Plant at Udyogmandal, Alwaye, Kerala. The company owns and operates two Mineral Sands Separation Plants, at Chavara (Kerala) and Manavalakurichi (Tamil Nadu). It also manages the Thorium Factory at Trombay.

The **Electronics Corporation of India Limited** was incorporated, with its registered office at Hyderabad on April 11, 1967 with the primary object of developing, manufacturing and marketing electronic components, instruments and systems based on indigenous know-how. It also undertakes commercial manufacture of various electronic equipment developed at Bhabha Atomic Research Centre and Tata Institute of Fundamental Research and other commercial products like T.V. sets, Computer etc.

The **Uranium Corporation of India Ltd.,** Jaduguda, was formed in Oct., 1967 with the primary object of providing uranium required for the Indian nuclear power programme. The Corporation took over the assets and liabilities of two Government projects viz. the Jaduguda Mines Project and the Jaduguda Uranium Mill Project on 16th Oct. 1967. Copper and molybdenum concentrates are produced as by-products.

Another important R & D project on hand is Magneto Hydrodynamics (MHD) Power Generation. Located at Tiruchirapalli, the project is a joint venture of BARC and Bharat Heavy Electricals Ltd. The MHD technique relates to the direct conversion of thermal energy to electrical power. The technology is expected to improve the thermal efficiency of fossil-fired power plants from the present 30-40 per cent to 50 per cent, and even higher.

BARC has also built and commissioned a flash X-ray generator in a national laboratory at Chandigarh. The flash X-rays have many applications in high-speed radiography, pulse radiolysis and X-ray cinematography.

Production of wide range of radioisotope preparations and associated equipment is a major activity at the BARC. During the year, the Centre supplied over 45,000 consignments of various radioactive products to users in India and abroad.

Isomed, the radiation sterilisation plant at Trombay, sterilised a total of 3,030 cu.m. of various medical products during the year.

NUCLEAR EXPLOSION

The first peaceful underground nuclear explosion at Pokhran in the Rajasthan desert was conducted on May 18, 1974. The plutonium device used was designed to yield about 12 kilotons of TNT explosive energy.

SOCIAL WELFARE

WITH the fast changing modern times, the very concept of social welfare has undergone a transformation, stress being laid on preventive and developmental aspects. Consequently, the Ministry of Social Welfare has set up three bureaux, each headed by a Joint Secretary, dealing with nutrition and child development, social security and welfare of the handicapped, well-being of women and development.

Financial allocations have been progressively going up from Rs. 16 million in the First Five-Year Plan to Rs. 1,500 million in the Sixth Five-Year Plan.

Among the highlights of the projects are Integrated Child Development Services, Welfare of Children in Need of Care and Protection, National Children's Fund, Creches, Condensed Courses of Education for Women, Assistance to Voluntary Organisation for the Handicapped, Scholarships to the Physically Handicapped Hostels for Working Women, etc. There has been co-ordination with UNICEF and CARE.

The following are the service centres:

The Central Social Welfare Board (Jeevan Deep Building, Parliament Street, New Delhi 110001). (*Established in* 1953): The Board, with a network of 30 State Social Welfare Advisory Boards in all the States and Union Territories, renders financial assistance to nearly 10,000 voluntary organisations for strengthening and improving their existing welfare services and to take up new activities for the benefit of the socially and economically weaker sections of the community with emphasis on children, women and the handicapped. The Board provides financial assistance to voluntary organisations under its various programmes. It also initiates pioneering welfare services in new fields and in unexplored areas. In extending these services, the Board supervises, guides and strengthens the voluntary organisations and its activities, besides evaluating the aided programmes. The Board has recently set up Voluntary Action Bureau in Delhi and 16 other States/Union Territories to fight social crimes, thus shifting the emphasis of its role from a mere fund giving agency to that of a social catalyst.

National Institute of Social Defence, Ministry of Social Welfare, West Block No. 1, Wing-7, Ramakrishnapuram, New Delhi 110066.

The main functions of the institute: (1) Undertakes research on social defence; (2) Compiles, processes, and analyses statistics on social defence; (3) Develops, promotes, sponsors and undertakes training orientation in the fields of social defence; (4) Drafts model legislation and rules in the field of social defence; (5) Advises the Central and State Governments/Union Territory Administrations on social defence problems and provides technical service facilities for preparation of schemes, formulation of projects, drafting of legislation, etc.; (6) Provides a forum for the exchange of information on social defence among States/Union Territories and voluntary organisations and thus serves as a clearing house for information in the field of social defence; (7) Creates public awareness on social defence problems specially in regard to preventive and rehabilitative role of the community; (8) Assists the Government of India for the exchange of information on social defence with other countries and with the United Nations or other specialised agencies; (9) Establishes liaison with universities, research institutes and voluntary organisations for appropriate attention to social defence: (10) Organises conferences/seminars/workshops on social defence; (11) Brings out publications in the field of social defence, both popular and scientific.

Rehabilitation Services, Delhi Administration, Jamnagar House, Shahjahan Road, New Delhi 110011 (Formerly Social Welfare and Rehabilitation Directorate, Govt. of India). Set up to tackle problems of destitute, needy and economically and socially handicapped women.

The main activities are: 1. One Year Certificate Course in Tailoring and Embroidery; 2. Two-Year Teachers' Training Diploma Course in Tailoring, Embroidery, Drawing & Designing, Book-keeping & Accounts and Method of Teaching & School Organisation etc.; 3. Non-Diploma Courses in Tailoring, Embroidery and Knitting etc. Besides this, the main employment providing work, for 19 Training-cum-Production Centres come from the Govt. of India's sources, under the standing orders of Ministry of Home Affairs, whereby liveries of all Central Government offices/departments/Public Undertakings is to be done as per prescribed stitching rates.

Research & Documentation Centre in Social Welfare and Development, 175, Dr. D. N. Rd., Bombay 400001. A voluntary organisation dedicated to social work in the areas of research, documentation, organisation of training courses, seminars & action projects.

The Association for Social Health in India (4, Deendayal Upadhyaya Marg, New Delhi 110002). Aims at the prevention of prostitution and other evils related to it; to secure equal ethical standards of living for men and women; to promote understanding & edn. in respect of sex relations and encourage healthy family relations through Family Life Instt.'s counselling & guidance centres; to establish, maintain and assist short stay homes & family homes to prevent exploitation of women, etc.

Research Institutions: *Andhra Pradesh*—Tribal Cultural Research & Training Instt., Ravindranagar Colony, H. No. 6-2-6, 2819, P. C. Khairatabad, Hyderabad 500004; *Assam*—Tribal Research Instt., New Sarania, Gauhati 781003; *Bihar*—Tribal Welfare Research Instt., Morabadi Rd., Ranchi 834001; *Gujarat*—Tribal Research and Trg. Centre, Gujarat Vidyapeeth, Ahmedabad 380014; *Kerala*—Instt. for Research Training & Development Studies of Scheduled Castes and Scheduled Tribes, Kozhikode; *Madhya Pradesh*—Tribal Research and Devpt. Instt., Bhopal 462001; *Maharashtra*—Tribal Research Instt., 28, Queen's Road, Pune 411001; *Meghalaya*—Tribal Research & Trg. Instt., Shillong 793001; *Nagaland*—Naga Cultural Instt., Kohima 797001; *Orissa*—Tribal and Harijan Research-cum-Training Instt., Bhubaneshwar 751001; *Rajasthan*—Tribal Research & Trg. Instt., Udaipur 313001; *Uttar Pradesh*—Directorate of Harijan and Social Welfare, Lucknow 266001; *West Bengal*—Cultural Research Instt., Maniktola, Calcutta 700001.

THE SALVATION ARMY

For administrative purposes the country is divided into 6 territories each under a territorial commander.

The work done is evangelical, social, medical and educational. The six territories are:

Madras and Andhra: Territorial Headquarters, The Salvation Army, 15, Ritherdon Road, P. O. Box 453, Vepery, Madras 600007.

South-Eastern India: Territorial Headquarters, The Salvation Army, High Ground Road, Maharaja Nagar P.O., Tirunelveli 627011, Tamil Nadu.

South-Western India: Territorial Headquarters, The Salvation Army, Kowdiar, Trivandrum 695003. Kerala State.

Northern India: Territorial Headquarters, The Salvation Army, "Rana Place", H-15, Green Park Extension, New Delhi 110016.

Eastern India: Territorial Headquarters, The Salvation Army, 37, Lenin Saranee, Calcutta 700013.

Western India: Territorial Headquarters, The Salvation Army, Sheikh Hafizuddin Marg, P.O. Box 4510, Byculla, Bombay 400008.

FAMILY WELFARE PROGRAMME

INDIA adopted family planning as an official programme in 1952 as it recognised that a timely check on population growth would, in turn, raise the standard of living of the people. During the period of the first two Plans (1951-61), the emphasis was mainly on research in the field of motivation, communication, demography, physiology of reproduction and on the extension of Central and State organisations for providing clinical services. After the results of the 1961 census, which revealed a growth rate higher than calculated, the programme was re-organised and a new "Extension Approach" was adopted in 1962-63. The programme was, however still treated as an isolated birth control scheme. This point of view was given a more concrete shape during 1974, the World Population Year. In March 1977, the Ministry of Health and Family Planning has been redesignated as Ministry of Health and Family Welfare, the Department of Family Planning as the Department of Family Welfare and the Family Planning Programme as Family Welfare Programme. The objective of the Family Welfare in India in 1978 was to reduce the **birth rate** to 30 per thousand population by the end of 1982-83 from the present rate of 33 per thousand population.

In 1978, the Planning Commission, appointed a Working Group on Population Policy to suggest a long-term demographic objective for the country. They felt that under the present conditions it is hardly possible to separate the issues of fertility control from the broad spectrum of socio-economic and developmental factors. The Group suggested that the future fertility goals should be linked to some developmental variables, like mortality level, particularly infant mortality. The Working Group, in its final report has recommended that the long-term demographic goal of the country should be that on the average woman will be replaced by one daughter and two-child family will be the normative pattern in the society, and for the country as a whole the goal should be reached by 1996. The recommendations of the Working Group were discussed by the National Development Council and following the approval of the Council the demographic goal suggested by the Working Group was incorporated into the Sixth Plan (1980-85) as the objective of the Population Policy.

Keeping in view the long-term demographic goal of the new population policy, the past performance, the present capacity and the future potentials, the operational programme fixed for the five

Overall Performance of Family Planning in 1979-80

Method	Tarjet 1980-81	Achievement			Change in performance in 1980-81 over 1979-80 (Percentage)
		Number	Percentage	Performance in 1979-80	
1. Sterilisation	2.90	2.03	70.0	1.78	(+)14.0
(a) Vasectomy	—	0.44	—	0.47	(−) 6.4
(b) Tubectomy	—	1.59	—	1.31	(+)21.4
2. I.U.C.D.	0.79	0.62	78.8	0.63	(−) 1.6
3. Other Methods (Eq. Users)	5.54	3.79	68.4	3.07	(+)23.5
(a) C.C.Users	5.04	3.70	73.4	2.99	(+)23.8
(b) Oral Pill Users	0.50	0.09	17.9	0.08	(+)12.5
Total Users	—	6.44	—	5.48	(+)17.5

year period 1980-85 envisages 22 million sterilisations, 7.9 million IUD insertions, and an annual average of 7.6 million users of conventional contraceptives and oral pills. For the year 1980-81, it was aimed to perform 2.9 million sterilisations, 0.8 million IUD insertions and 5.5 million users of conventional contraceptives.

Position in 1980-81

The method-wise performance of the programme as compared to that in the year 1979-80 is tabulated in the table given above.

Administration: A full-fledged Department of Family Planning created in April 1966, in the Ministry of Health and Family Planning, now known as the Department of Family Welfare, is headed by the Secretary, who is in overall charge of the department. He is assisted by an Additional Secretary who is also Commissioner of Family Welfare. There is a Family Welfare Cabinet Committee presided over by the Finance Minister and the State Family Welfare Cabinet Committees headed by the Chief Ministers to ensure expeditious policy clearance and better co-ordination among different administrative wings. The Central Family Welfare Council is the supreme policy-making body. The Union Minister of Health presides over the Council, while all State Health Ministers and Secretaries are its members. The Council also includes representatives of voluntary and labour organisations, some members of Parliament and eminent personalities and experts in the field of family welfare. Family Welfare Councils also function at the State level.

On 31st May, 1982, Government announced the formation of a national population advisory council to keep a close watch on the implementation of the family planning programme and suggest strategies for improving the performance of the programme to facilitate attainment of the demographic goals.

The council, headed by the Health Minister, comprises 20 members who are to hold office for two years.

Organisation in States and Union Territories: To implement Family Welfare and Maternal Health Programme, 27 State Family Welfare Bureaux are functioning in various States and Union Territories. At the district level, out of 391 districts in India, 366 district Family Welfare Bureaux are functioning in the country and five more, two each in Meghalaya and Maharashtra and one in Haryana, have been sanctioned during 1981-82. Up to the period ending March, 1981, there were 2,218 Urban Family Welfare Centres (including 503 attached to Post-Partum Family Welfare Institutions). In addition, the State Governments have been allowed to establish 200 new Urban Family Welfare Centres during 1981-82. Again in the rural areas Family Welfare Centre forms an integral part of the Primary Health Centre. As against 5,456 Primary Health Centres functioning in the country, 5,408 Rural Family Welfare Centres have been functioning. The State Governments have been allowed to establish 80 Rural Family Welfare Centres at such Primary Health Centres which do not have one at present. These Rural Centres are supported by sub-centres. Against the required 80,050 sub-centres necessary to achieve the target of one sub-centre per 5,000 population (1981 census), 50,157 sub-centres are functioning in the country. It has also been decided to establish a comprehensive Health Delivery System in the rural areas through a team of multipurpose workers, one female and one male per 5,000 rural population. It is proposed that 71 per cent of the estimated number of workers according to mid-year population of 1982 would be in position by the end of Sixth Five Year Plan and massive training scheme have been taken up towards that end.

Integrated Approach: During the inter-plan period of 1968-69, the family planning programme was integrated with the public health

Allocation of Funds and Actual Expenditure during the Plan Periods.

Period	Allocation of Funds (in million Rs.)	Actual Expenditure (in million Rs.)
First Plan		
1951-56 ...	6.5	1.45
Second Plan		
1956-61 ...	49.7	21.56
Third Plan		
1961-66 ...	270.0	248.60
Annual Plans (Inter Plan Period)		
1966-67 ...	149.3	34.26
1967-68 ...	310.0	265.23
1968-69 ...	370.0	305.15
Fourth Plan (Plan Outlay 3,300.0)		
1969-70 ...	420.0	361.84
1970-71 ...	520.0	489.04
1971-72 ...	606.1	617.56
1972-73 ...	763.1	797.48
1973-74 ...	548.5	578.46
Fifth Plan (Plan Outlay 4,973.6)		
1974-75 ...	541.4	620.48
1975-76 ...	632.0(a)	806.14
1976-77 ...	1,491.0+	1,729.82*
1977-78 ...	981.8+	933.37*
Sixth Plan — 1978-83 (Plan Outlay 7,650.0)		
1978-79 ...	1,118.1	1,075.5
1979-80 ...	1,161.9	1,185.1
Sixth Plan — 1980-85 (Plan Outlay 10,100.0)		
1980-81 ...	1,400@	
1981-82 ...	1.550@	

* Provisional

+ Including Rs. 791.4 million obtained through supplementary grants and excluding Rs. 1.5 million provided in the Ministry of Works and Housing

(a) In addition supplementary grant was also sought, including Rs. 59.5 million for payment of arrears.

@ Budget provision

programme in the country, especially with the maternal and child health programme. In 1973-74, it was integrated with other health programmes, like health, family planning, maternity and child health (MCH) and multi-purpose workers are being trained to perform all the integrated tasks. Since 1978, the programme has been integrated with other development programmes, such as adult education programmes, population education programmes in the schools and special programmes for employment of women in rural areas. However, during the year 1974-75, the policy of mini-camps were adopted. These camps are held at primary health centres, urban welfare centres and at district and *tehsil* hospitals. An extra expenditure of Rs 5 per case is allowed.

Some Associations: Voluntary organisations have been recognised for playing an important role in the field of family welfare. Some of these are: the Family Planning Association of India, Indian Medical Association, Central Bharat Sevak Samaj, Indian Red Cross Society, Trained Nurses Association of India, Bharatiya Gramin Mahila Sangh, Indian Council of Social Welfare, the Christian Medical Association, the Rotary Clubs, the Lions Clubs and the Junior Chambers of Commerce etc. Many of these voluntary organisations are represented on the Central as well as on the State family welfare councils. In addition, the Ministries of Railways, Defence, Labour and Employment, and the Posts and Telegraphs Department have been participating in the National Family Welfare Programme. For commercial distribution of *Nirodh*, 12 consumer goods marketing companies are engaged in the work and it is estimated that 0.38 million retail shops are selling *Nirodh*.

Research: Research in demography, bio-medicine and communication is supported by the Government through suitable grants.

A high-powered committee called the Committee on Socio-economic Studies on Family Welfare has been constituted to go into different aspects of the family welfare programme. This Committee advises and co-ordinates research on economic, sociological, educational, psychological, communicational and demographic aspects of population growth and family welfare. The Committee also reviews the progress of research work done and makes recommendations for development of research in these fields. It also reviews the working of the research centres dealing with population studies.

The International Institute for Population Studies (IIPS), Deonar, Bombay 400 088: Formerly known as Demographic Training and Research Centre, the Institute was established as a registered body in July 1956 and is a regional centre for the training of demographers from India and other ESCAP countries. It is supported by the United Nations and Government of India. The Institute conducts a Certificate course in Population Studies, and Diploma course in Population Studies. It also has a Ph.D Programme leading to Ph.D. in Demography of the Bombay University. Apart from teaching the Institute undertakes researches in the field of population studies, including family welfare. It was renamed as International Institute for Population Studies in 1970.

Population Research Centres: The National Institute of Health and Family Welfare, New Delhi, is a technical Institute for promoting health and family welfare programme in the country through education, training, service, research, evaluation and consultancy. In addition, there are 15 Population Research Centres located at Baroda, Bangalore, Delhi, Dharwar, Gandhigram, Lucknow, Patna, Pune, Trivandrum, Bhubaneswar, Waltair, Gauhati, Chandigarh, Bhopal and Udaipur. These Centres are functioning with the financial assistance from the Department of Family Welfare, Ministry of Health and Family Welfare. Three new Centres at Bhopal, Calcutta and Udaipur have been sanctioned and are at various stages of establishment.

India Population Project: Since 1973, two experimental projects on family welfare have been initiated. The first project covers six districts of Uttar Pradesh and the second, five districts of Karnataka. These projects were run with assistance from the International Development Association to the extent of 21.2 million dollars in the form of a loan, and 10.6 million dollar grant from the Swedish International Development Authority. The emphasis in these projects is on the implementation of a maternity based family welfare programme both in urban and rural areas. An attempt has also been made to assess the effect of supplementary nutrition on the acceptance of family welfare in one district each in the two States and to Develop a better system of management information and evaluation. The implementation of the field programme has been divided into three broad categories namely, an urban programme in the cities of Lucknow and Bangalore: an optimal programme on the existing pattern in four districts of Uttar Pradesh and three districts of Karnataka: and an intensive rural programme in two districts of each of the States. A population centre is attached to each of these projects. The main function of the Centre is to carry out experimental and innovative studies in the field of family welfare and to experiment with new management techniques.

Research in Reproductive Biology and Fertility Control: Research in Reproductive Biology and Fertility Control is carried out at the Central Drug Research Institute, Lucknow: All-India Institute of Medical Sciences, New Delhi: Rajasthan University: National Institute of Health & Family Welfare, New Delhi; Indian Institute of Science. Bangalore: Institute of Research in Reproduction, Bombay. The Indian Council of Medical Research provides technical advice and co-ordinates research work in the field of medical and bio-medical research.

Training: The training of family welfare instructors and key staff is undertaken by five training institutes, the National Institute of Health and Family Welfare, New Delhi; the Institute of Rural Health and Family Welfare, Gandhigram; the All-India Institute of Hygiene and Public Health, Calcutta; the Family Welfare Training and Research Centre, Bombay; and the Central Health Education Bureau, New Delhi. There are 59 Family Welfare Training Centres at the State level functioning. Each State has a Central Family Welfare Field Unit which undertakes *ad hoc* training programmes. In order to overcome the acute shortage of Auxiliary Nurse Midwives in some States, the Family Welfare Department opened 25 new ANM training schools in 1970-71, ten in Bihar, ten in Uttar Pradesh and five in Orissa.

Oral Contraceptives: The Technical Committee on Family Planning recommended in June, 1971, that oral contraceptives may be tried both in urban and rural areas under some restricted conditions as an adjunct to the IUD programme. As of March 1981 there were 7,061 centres comprising 4,546 rural centres and 2,515 urban centres (excluding 25 centres of Tripura for which rural/urban break up is not available) were distributing pills throughout the country. During 1980-81 a total of 1.15 million cycles of oral pills were distributed gratis throughout the country.

Copper 'T': The Government has agreed to include Copper T as a new loop in its programme. The Indian Medical Research Institute has found it effective. Out of a total of 0.62 million IUD insertions in 1980-81, 0.28 million were Copper T. Compared to the performance of Copper T insertion in 1979-80, the performance during 1980-81 has slightly decreased. It is likely the demand of Copper T will increase in the future.

Medical Termination of Pregnancy Programme: Through this programme, abortions are conducted on persons requiring the same voluntarily by trained doctors in government hospitals and approved institutions. As per reports received upto March 1981, there were 3,319 institutions approved for M.T.P. Since inception more than 2.4 million abortions have been terminated under this programme, out of which 375,815 were performed during 1981-82.

Conventional Contraceptives: Among the conventional contraceptives, Nirodh is widely used. It claims about 97 per cent of the total conventional contraceptive users. During the year 1980-81, about 285.6 million pieces were distributed out of which around 130 million pieces were distributed through commercial distribution and the rest free of cost. Presently 12 consumer goods marketing companies are engaged in this work and about 0.38 million retail shops are selling *Nirodh*.

Progress: The country's birth rate for 1979 was slightly lower than that for the previous year. Calculated on the basis of births averted through the family welfare programme, the rate was 33.3 per 1.000 during 1978 as compared to 33.0 for 1979.

The number of births averted in 1980-81 was 4.93 million while the corresponding achievement in the preceding year was 4.91 million.

The total number of births averted up to the end of March 1981 since the inception of the family planning programme was 44.2 million.

However, the progress of the family welfare programme during 1980-81 was better than in the previous year. The number of voluntary sterilisations performed in 1980-81 was 2.03 million as compared to 1.78 million in 1979-80, representing a 14.0 per cent increase.

The percentage of tubectomy operations performed during 1980-81 was slightly more (78.6 per cent) than that of 1979-80 (73.4 per cent). Since the launching of the family planning programme in the country, 33.4 million sterilisation operations have been performed upto the end of March 1981, giving a cumulative rate of 48.8 per 1,000 population.

The number of IUD insertions done in 1980-81, was 623,086 as against 634,509 in 1979-80 representing a slight decrease of two per cent. The total of such insertions done from the beginning of the programme until March 31, 1981 was 8.77 million giving a cumulative rate of 12.8 per 1,000 population.

But in 1980-81 the actual performance, against the official "expectation" was less in all aspects of the programme. In the case of voluntary sterilisation, while the expectation was 2.90 million the achievement was 2.03 million.

During the year 1980-81 there was an improvement in the number of sterilisations compared to that of the previous year. However, there was a slight decline in the number of IUD insertions. In case of "Other Methods", C.C. and Oral Pill users there was increase in the number of users. As a result of the net change in the performance in 1980-81 over 1979-80, there was an increase of 17.5 per cent in the number of "acceptors" of any family planning methods propagated under the official programme in 1980-81 was 6.44 million against 5.48 million in 1979-80.

Up to the end of March, 1981 the number of eligible couples effectively protected by the programme was 26.4 million, out of the total 116 million such couples in the country. Thus, the percentage of protected couples was 22.7.

State-wise achievement of family planning by methods, 1980-81

States/Union Territories	Sterilisation Achievement	Per cent of target	IUCD Achievement	Per cent of target	Other Methods Achievement	Per cent of target
Andhra Pradesh	233,448	64.2	16,534	34.4	38,944	14.7
Assam	23,923	33.2	6,136	39.8	16,191	25.8
Bihar	92,481	31.2	18,772	26.1	62,115	21.6
Gujarat	200,594	117.1	40,942	86.6	184,142	66.9
Haryana	32,527	70.9	24,666	160.2	115,247	110.4
Himachal Pradesh	14,900	58.4	6,826	158.7	16,313	100.1
J. & K.	10,530	32.4	7,643	140.8	7,179	26.8
Karnataka	142,896	70.6	54,657	99.4	95,897	64.5
Kerala	112,974	84.6	18,394	70.7	17,159	16.1
Madhya Pradesh	129,949	65.8	18,630	38.1	95,464	28.8
Maharashtra	311,877	117.6	37,909	65.0	170,338	73.7
Manipur	2,133	41.3	2,180	83.8	2,002	33.4
Meghalaya	263	3.3	284	18.9	582	9.7
Nagaland	238	—	32	—	—	—
Orissa	90,310	68.2	16,700	72.3	33,841	37.3
Punjab	47,632	43.1	47,369	185.0	108,813	97.0
Rajasthan	100,541	34.3	18,110	51.6	93,784	73.2
Sikkim	300	121.2	814	—	624	—
Tamil Nadu	131.224	55.9	31,463	65.8	73,854	38.8
Tripura	515	11.0	296	17.4	1,685	21.1
Uttar Pradesh	78,771	12.0	174,384	96.7	322,803	67.1
West Bengal	209,940	70.5	31,033	88.7	98,131	43.1
A. & N. Islands	538	29.9	646	215.3	499	83.2
Arunachal Pradesh	162	5.0	506	72.3	877	33.7
Chandigarh	1,357	62.7	4,510	300.7	8,350	116.0
D. & N. Haveli	420	67.2	19	19.0	354	70.8
Delhi	15,593	48.1	30,630	113.4	158,902	87.8
Goa, Daman & Diu	2,320	36.2	521	40.1	1,400	26.9
Lakshadweep	25	9.5	28	28.0	267	133.5
Mizoram	1,795	89.1	445	63.6	629	28.6
Pondicherry	4,192	121.5	1,289	184.1	1,007	45.8
M/o Defence	21,702	92.6	6,867	228.9	57,454	112.0
M/o Railways	12,444	25.0	3,851	77.0	192,671	108.7
Commercial Distribution	—	—	—	—	1,798,611	89.9
Family Planning Association of India	—	—	—	—	5,339	—
CMAI (FP Project)	—	—	—	—	6,097	—
All India	2,028,514	58.3	623,086	78.8	3,787,565	68.4

New Legislation: The Medical Termination of Pregnancy was passed in 1972 and is designed to substantially liberalise legal provisions to resort to abortion in cases where contraceptives fail to prevent conception.

According to the National Population Policy announced by the Government of India on April 16, 1976, it was proposed to raise the legal minimum age of females at marriage from 16 to 18 years. The Child Marriage Restraint (Amendment) Act, 1978, which came into effect from 1-10-1978, provides for raising the minimum age of marriage in respect of girls to 18 years and in respect of boys to 21 years. The Government has also taken preliminary steps to introduce population education in schools and colleges.

According to the revised statement of policy released on 29-6-1977, family planning will be pursued vigorously as a wholly voluntary programme and an integral part of comprehensive policy covering education, health, maternity and child care, family welfare, women's rights and nutrition.

Religion and Family Welfare: The religion-wise distribution of sterilisation and IUD insertions in 1979-80 based on the revised estimates of the Department of Family Welfare are given in the table below.

Religion-wise percentage distribution of sterilisation and IUD, 1979-80

Religion	Sterilised Persons	IUD acceptors	Distribution in 1971 census
Hindus	88.6	84.9	82.7
Muslims	5.9	7.4	11.2
Christians	3.3	2.5	2.6
Sikhs	1.4	5.5	1.9
Others	0.8	0.7	1.6
Total	100.0	100.0	100.0

Percentage of couples effectively protected by various methods up to March 1981.

States/Union Territories	Estimated no. of eligible couples in March 1981 ('000)	Percentage of couples effectively protected			
		Sterilisation	IUD	Other Methods	All Methods
Andhra Pradesh	9,620	25.7	0.3	0.2	26.2
Assam	2,929	17.8	0.5	0.3	18.5
Bihar	13,067	11.3	0.3	0.3	11.9
Gujarat	5,575	30.2	1.3	1.8	33.3
Haryana	2,071	22.9	3.0	2.8	28.7
Himachal Pradesh	734	22.1	1.6	1.1	24.9
J. & K.	1,012	9.1	1.1	0.4	10.7
Karnataka	6,081	20.9	1.5	0.9	23.2
Kerala	3,559	29.7	1.0	0.3	30.9
Madhya Pradesh	9,287	20.3	0.5	0.5	21.3
Maharashtra	10,730	33.2	0.5	0.8	34.6
Manipur	185	8.3	2.0	0.6	10.9
Meghalaya	195	5.5	0.4	0.2	6.0
Nagaland	96	1.0	0.1	—	1.1
Orissa	4,601	24.3	0.8	0.4	25.4
Punjab	2,386	19.2	3.4	2.3	24.9
Rajasthan	6,111	12.1	0.6	0.8	13.5
Sikkim	41	3.0	3.2	1.5	7.7
Tamil Nadu	8,167	26.4	0.8	0.5	27.6
Tripura	322	8.4	0.2	0.4	9.0
Uttar Pradesh	19,639	8.1	1.8	0.9	10.8
W. Bengal	8,288	22.3	0.5	0.6	23.5
A. & N. Islands	27	13.2	3.2	1.0	17.4
Arunachal Pradesh	102	0.8	0.7	0.7	2.2
Chandigarh	74	15.0	10.0	5.7	30.7
D. & N. Haveli	18	13.4	0.1	1.0	14.6
Delhi	974	23.0	5.2	8.2	36.4
Goa, Daman & Diu	152	16.4	0.7	0.5	17.5
Lakshadweep	7	5.6	0.4	2.3	8.3
Mizoram	72	9.9	1.1	0.5	11.6
Pondicherry	100	34.6	2.4	0.5	37.5
All India	1,16,345	20.0	1.0	1.7	22.7

PUBLIC HEALTH

(For the addresses of the Research Institutes mentioned in the chapter please refer to the Research chapter)

PUBLIC health, which broadly embraces preventive measures and control of communicable diseases to enable the citizen to lead a healthy life, is primarily the responsibility of the State Governments. But the Union Government plays a major role in all such programmes. The Centre is also directly responsible for this State subject in the Union Territories. It also emphasises the Family Welfare Programme and guides, sponsors, and supports major health programmes of national significance such as control of T.B., Leprosy, Malaria etc.

For effective implementation of the policies the Union Ministry of Health and Family Welfare functions through the Directorate-General of Health Services.

Outlay on Public Health and Medical Programme

(Rs. million)

Period	Central	Centrally Sponsored	States	Union Territories	Total
Third plan	148.3	54.6	1,932.4	123.3	2,258.6
1966-69	167.6	111.4	1,052.4	69.7	1,401.1
Fourth Plan					
1969-74	535.0	1,765.0	1,842.4	192.9	4,335.3
Fifth Plan					
1974-78	445.1	1,740.6	2,436.6	269.8	4,892.1
1978-79	219.8	1,245.0	1,223.5	127.0	2,815.3
1979-80	179.2	1,390.5*	1,044.8	140.0	2,754.5
1980-81	220.2	879.8	1,958.6	172.2	3,230.8
1981-82	324.2	925.8	2,091.5	224.5	3,566.0

*Prior to the transfer of Centrally Sponsored Schemes to State share.

The primary objective of the Health Sector in the Sixth Five Year Plan (1980-85) is to provide better primary health and medical care services in the rural areas, tribal areas and to poor people. This aims to achieve the goal of "Health for all by 2000 A.D." as postulated in the 'Alma Ata' international declaration.

In the Sixth Five Year Plan, an outlay of Rs. 28,311 million has been provided for Health and Family Welfare Programmes out of which Rs. 18,211 million is for health and Rs. 10,100 million is for family welfare schemes. The outlay for health schemes is roughly 1.9 per cent of the total plan investment of the Sixth Plan. In the Annual Plan of 1981-82, an outlay of Rs. 3,566.0 million has been provided for health plans. The budget estimates (1981-82) under the Central and State Sectors are Rs. 1,250.0 million and Rs. 2,316.0 million respectively.

Rural Health: The Central Health and Family Welfare Ministry drafted a plan for the development and extension of health care services in the rural areas at an expenditure of Rs. 4,860 million over the four years during 1981-85. It proposes to provide health services at the villager's doorstep through 580,000 community health workers and another 580,000 midwives after a short term training in the preventive and promotional aspects of health care. It envisages one man and one woman multipurpose worker for every 5,000 people by 1984-85. Manpower will be drawn from among those below 30 years with minimum formal education up to the sixth standard. The workers, covering every village with a population of 1,000 will be selected by the community itself and trained in groups of 20 for three months. The target of training is 580,000 community health workers at the country's 5,372 community health centres. Since the inception of the Community Health Volunteer s Scheme 182,077 persons had been trained up to 30th September, 1981

During 1981-82 the Government has established 142 new primary health centres and 8,518 new sub-centres. Besides 36 primary health centres have been upgraded.

Expectation of Life at Birth and Death Rates

Year	Expectation of life at birth		Death rate per 1,000 population
	Males	Females	
1941-50	32.5 years	31.7 years	27.4
1951-60	41.9 years	40.6 years	22.8
1961-70	46.4 years	44.7 years	19.0
1971-75	50.7 years	49.3 years	15.5 (for 1973)†
1976-80	53.8 years	52.6 years	14.2 (for 1978)†

†Based on sample registration system data.

Source: (i) The figures for 1941-50, 1951-60, 1961-70 are based on Census estimates. (ii) The figures for 1971-75 and 1976-80 are estimates based on the revised projections made by the Expert Committee appointed by the Government of India.

Hospitals and Dispensaries: The number of hospitals and dispensaries (as on January 1, 1982) was 23,559 out of which 10,148 were in the urban areas and the rest rural. The number of beds available in the urban areas was 417,781 and in rural 86,757.

Doctor-Population Ratio: At the end of 1979-80 the doctor-population ratio was 1:3,600 and that of midwife/nurse was 1:5,600. The number of doctors registered (possessing recognised medical qualifications under I.M.C. Act) with the State Medical Councils was 268,712 in 1981. The corresponding number in 1980 was 255,138.

Population Ratio per Doctor in States/Territories: (Year in brackets): Andhra Pradesh: 12,557 (1982); Assam: 11,879 (1979); Bihar: 4,746 (1978); Gujarat: 2,603 (1978); Haryana: 6,131 (1982); Himachal Pradesh: 7,514 (1979); Jammu and Kashmir: 6,996 (1979); Karnataka: 9,770 (1979); Kerala: 2,491 (1979); Madhya Pradesh: 11,546 (1978); Maharashtra: 2,045 (1982); Manipur: 3,463 (1980); Meghalaya: 6,422 (1979); Nagaland: 3,425 (1979); Orissa: 9,377 (1978); Punjab: 3,705 (1982); Rajasthan: 10,637 (1982); Sikkim: 3,115 (1979); Tamil Nadu: 7,663 (1982); Tripura: 5,743 (1980); Uttar Pradesh: 16,677 (1979); West Bengal: 2,236 (1981); Andaman and Nicobar Islands: 2,896 (1981); Arunachal Pradesh: 2,841 (1981); Chandigarh: 1,131 (1979); Dadra and Nagar Haveli: 5,184 (1982); Goa, Daman and Diu: 1,014 (1982); Lakshadweep: 3,095 (1980); Mizoram: 7,173 (1981); Pondicherry: 2,472 (1982).

Air Pollution: The National Environmental Engineering Research Institute, Nagpur is studying the effects of air pollution in Bombay. A national network of sampling for air quality has been set up in nine cities (viz. Delhi, Calcutta, Madras, Kanpur, Bombay, Ahmedabad, Hyderabad, Jaipur and Nagpur).

A provision of Rs. 15 million was made in the Fifth Plan for water and air pollution control to meet the cost of establishment of a Central Water Board and for extending financial assistance to State Governments and Union Territories for necessary studies in this subject.

Cancer: About 425,000 people die every year from cancer in India. There are 110 centres where facilities for cancer treatment are available in the form of surgery, radium etc. The State-wise break-up is: Andhra Pradesh 7, Assam 4, Bihar 2, Delhi 6, Gujarat 5, Karnataka 6, Kerala 3, Maharashtra 15, Orissa 2, Punjab (including Haryana) 5, Rajasthan 6, Tamil Nadu 13, Uttar Pradesh 5, and West Bengal 5. During the Fifth Plan it was proposed to strengthen the treatment facilities by providing radio-therapy units at medical college hospitals and important district hospitals with Cobalt beam. A sum of Rs. 30 million has been provided for this purpose. The Cancer

Foundation had offered a donation of Rs. 4 million for setting up of a Rotary Cancer Hospital at the All India Institute of Medical Sciences, New Delhi. In the Sixth Plan, a sum of Rs. 115 million has been provisionally kept for cancer research and treatment.

Research is conducted at the Cancer Research Institute, Parel, Bombay; the Cancer Institute, 110 Mount Road, Madras 600018; the Chittaranjan National Cancer Research Centre, Calcutta; Radium Institute and Cancer Hospital, Hyderabad; J.K. Institute of Radiology and Cancer Research, Kanpur; International Cancer Centre, Neyoor, Tamil Nadu and S. N. Medical College, Agra. Field Research stations for official facilities have also been established at Chandernagore, Hooghly, West Bengal and Madras. The Indian Council of Medical Research has started a study of cancer of the cervix at the Lady Hardinge Medical College and Safdarjang Hospital in New Delhi.

Cholera: The endemic areas are Andhra Pradesh, Bihar, Maharashtra, Karnataka, Orissa, Tamil Nadu and West Bengal. Considerable decline had been noticed in the case fatality of Cholera during 1981 compared to 1980. During 1981, 5,731 cases with 190 deaths were reported while during 1980, 8,717 cases occurred with 309 deaths.

The introduction of Oral Rehydration Therapy has proved very effective in the control of cholera and other diarrhoral diseases. 46 cholera combat teams are functioning in different parts of the country.

Diabetes: The urban population in the country is more prone to diabetes than its counterparts in rural areas. On a rough estimate at the end of 1972 about 5.5 million people were suffering from diabetes in India. Of them, urban area's share was 3.3 million.

Filaria: The National Filaria Control Programme has been in operation since 1955-56. About 236 million persons are endemic for filaria. 18 million persons have been detected as micro-filaria carriers and 14 million are chronic filaria patients. At present 157 Filaria control units, 46 filaria clinics, and 26 survey units are functioning in various endemic States/Union Territories endemic for filariasis. These units protect 23 million urban population.

The headquarters of the programme is located at the National Institute of Communicable Diseases, Delhi. Training in filariology is being imparted at the Regional Filaria Training and Research Centres located each at Calicut (Kerala), Rajahmundry (Andhra Pradesh) and Varanasi (Uttar Pradesh). These centres are also responsible for the field evaluation of the programme, and research in various aspects of filariasis.

Pilot programmes for the control of filariasis in rural areas were introduced in three districts, viz. Srikakulam (Andhra), Bulsar (Gujarat) and Jaunpur (Uttar Pradesh) since 1977, which cover about 5 million of the population.

Goitre: Endemic goitre is a nutritional deficiency disease and is prevalent in the southern slopes of the Himalayas covering a distance of 2,414 kms. About 40 million people live on this goitre belt which consists of northern parts of Jammu and Kashmir, Punjab, Haryana, Himachal Pradesh, Bihar, West Bengal, Nagaland, Arunachal Pradesh and Manipur. The persons affected with goitre are estimated to be about 8 to 10 million. The Central Goitre Survey Teams have completed initial goitre surveys.

The National Goitre Control Programme includes the manufacture of iodised salt at Sambhar Salt Ltd. (Sambhar Lake) in Rajasthan, Hindustan Salt Ltd. (Kharaghoda) in Gujarat, Government Salt Golah (Howrah, Calcutta) and at Gauhati (Assam). The production during 1981-82 in these establishments was estimated to be 0.15 million metric tonnes. Three additional plants are proposed to be installed one each in Meghalaya, Himachal Pradesh and Madhya Pradesh.

Influenza: An Influenza Centre was opened in 1950 at the Pasteur Institute, Coonoor, Tamil Nadu, to undertake study of and research in problems relating to influenza. The centre co-operates with the World Influenza Centre, London and other influenza centres organised by the WHO in different parts of the world.

Leprosy: It has been estimated that 3.2 million people in India are suffering from leprosy out of which about 25 per cent are of the infectious type and 25 per cent suffer from deformities.

The National Leprosy Control Programme was launched in the year 1955 to control the spread of the disease and to provide modern treatment facilities to the leprosy patients. Till October 1981, the following components have been established under the above programme: Leprosy Control Units: 383; Survey education and treatment centres: 6,695; Urban leprosy centres: 445; Temporary hospitalisation wards: 226; Voluntary leprosy control units: 42; Number of beds provided: 32,000.

The Central Leprosy Training and Research Institute, Chingleput (Tamil Nadu), **Regional Leprosy Training Institute,** Aska (Orissa) and **Regional Leprosy Training & Research Institute,** Raipur (Madhya Pradesh) are the Regional Training and Research Institutions under the Central Govt.

Assistance to certain research programmes is received from the WHO in the form of equipment and drugs.

Private organisations also take active part in controlling leprosy. These include the Leprosy Mission, Hind Kushta Nivaran Sangh (the Indian Leprosy Association), Gandhi Memorial Leprosy Foundation (for addresses refer to the chapter on 'Institutions for the Handicapped') and 3 R' Society, C/o Tata Dept. of Plastic Surgery, Balaram Bldg., J. J. Group of Hospitals, Bombay 400008. In addition four centres helped by international agencies are also functioning. They include the French Centre in Andhra Pradesh, ELEP Centre and Swedish Mission Hospital in Tamil Nadu, and JALMA in Uttar Pradesh.

The Reconstruction Surgery Programme is receiving increasing attention of the Government of India and leprosy patients with deformities of hands, feet and face get facilities of corrective surgery now in about 30 hospitals in India.

Malaria: The incidence of the disease which used to be 75 million cases per year in 1952 has been reduced to about 0.1 million total cases in 1965. But due to world-wide shortage of DDT and BHC, and increase in their prices, spraying was limited causing an increase in the incidence of malaria. In 1975 there were 5.1 million cases which again were brought down to 3.1 million in 1979 and 2.7 million in 1981. Mortality due to malaria which in 1952 was estimated at 0.75 million deaths, is now a rarity. Deaths due to Malaria during 1981 were 164. Incidence of Malaria during 1976 was the highest in recent years, viz. 6,467,215. In order to tackle the growing incidence of Malaria a modified plan of operation at an estimated cost of Rs. 658.7 million per annum was implemented since April 1, 1977. There are at present 393,250 NMEP units functioning in the country covering a population of 535 million. The remaining population reside in areas which were never malaria endemic.

The National Institute for Communicable Diseases is responsible for research and field investigations and for the training of unit medical officers and district health officers in methods of malaria eradication. Other categories of health personnel are trained by the regional co-ordinating organisations established at Bangalore, Vadodara, Bhubaneswar, Hyderabad, Lucknow and Shillong.

Mental Diseases: At present there are 38 mental hospitals with accommodation for about 25,000 patients. About 1 million Indians suffer from mental sickness (1971).

It was proposed to establish 50 psychiatric clinics in medical colleges during the Fifth Plan. The following is a list of mental hospitals in India:

Andhra Pradesh: Government Mental Hospital, Waltair; Hospital for Mental Diseases, Hyderabad. **Assam:** Mental Hospital, Tezpur. **Bihar:** Hospital for Mental Diseases, Ranchi; Ranchi Mansika Arogya Shala, Ranchi. **Delhi:** Mental Hospital, Delhi. **Goa:** Mental Hospital, Panaji, Goa. **Gujarat:** Mental Hospital, Ahmedabad; Mental Hospital, Vadodara; Mental Hospital, Bhavnagar; Mental Hospital, Bhuj; Mental Hospital, Jamnagar. **Jammu & Kashmir:**

Mental Hospital, Srinagar. **Karnataka:** National Institute of Mental Health and Neuro Sciences, Bangalore; Government Mental Hospital, Dharwar. **Kerala:** Mental Hospital, Trivandrum; Mental Hospital, Trichur; Mental Hospital, Calicut. **Madhya Pradesh:** Mental Hospital, Indore; Mental Hospital, Gwalior. **Maharashtra:** Mental Hospital, Thane; Mental Hospital, Ratnagiri; Central Mental Hospital, Yeravada; Mental Hospital, Nagpur: Private Hospital, Miraj. **Orissa:** Orissa Red Cross Mental Health Institute, Cuttack. **Punjab:** Mental Hospital, Amritsar. **Rajasthan:** Mental Hospital, Jaipur; Mental Hospital, Jodhpur. **Tamil Nadu:** Government Mental Hospital, Madras. **Uttar Pradesh:** Mental Hospital Varanasi; Mental Hospital, Agra, Mental Hospital, Bareilly; Nur Manzil Psychiatric Centre, Lucknow. **West Bengal:** Mental Observation Ward, Calcutta; Lumbini Park Mental Hospital, 24-Parganas; Bangiya Unmad Ashram, Calcutta; Mental Hospital, Calcutta; Bodhi Peet Mental Hospital, Calcutta, Mental Hospital, Mankundu, Hooghly.

There are at present 51 institutions (25 Government and 26 private) for the **mentally deficient** and the **mentally handicapped.** The Major centres are in: Chandigarh (1), Uttar Pradesh (5), Karnataka (2), Maharashtra (19), Tamil Nadu (1), Madhya Pradesh (1), Kerala (1), Gujarat (3), Delhi (7), Bihar (2) and Andhra Pradesh (2).

National Institute of Mental Health & Neuro-sciences, P. Bag No. 2979, Hosur Road, Bangalore 560029, is registered as a society and it is the premier institution of its kind in India. (See Chapter on "Education" for courses conducted.)

The institute is backed by a well-equipped hospital complex. It provides treatment in the fields of neuro-surgery, neurology and psychiatry. A community psychiatric service in 50 surrounding villages and a project to probe "human consciousness" which includes a study of altered conscious states in the *Kundalini yoga* and after the use of drugs are among the schemes currently undertaken by the Institute.

Smallpox: As a result of intensive campaign carried out in 1974-75 with the help of the World Health Organisation, smallpox has been eradicated from the country. No smallpox case has been reported since May 1975. 9,597,687 primary vaccinations and 10,573,439 revaccinations against smallpox have been given during 1979 (upto Sept.).

Trachoma: Trachoma infection is highly endemic in the States of Punjab including Haryana (79.1 per cent), Rajasthan (74.3 per cent), Uttar Pradesh (68.1 per cent), and Gujarat (56.0 per cent). The States of Madhya Pradesh (41.3 per cent), Bihar (35.0 per cent), Assam (25.2 per cent), and Karnataka (22.6 per cent), are considered to be moderately endemic areas where the prevalence is more than 20 per cent but less than 50 per cent. The low endemic areas are the States of Jammu and Kashmir (16.8 per cent), Maharashtra (11.2 per cent), Kerala (8.7 per cent), Andhra Pradesh (5.3 per cent), Tamil Nadu (4.6 per cent), Orissa (2.7 per cent) and West Bengal (0.5 per cent).

About 45 million people are suffering from visual impairment and over 9 million are blind including 6 million who can be cured by surgery. Due to nutrition deficiency about 2 million people lost their eye-sight.

A National Plan for prevention of Visual Impairment and Control Blindness including Trachoma Control was drawn up with the main objective of providing eye-health care services to the community with emphasis on prevention and treatment. The control strategy of the programme includes (1) health education to the community; (2) temporary measures to provide immediate and comprehensive eye health care by establishing mobile units in different parts of the community and (3) creation of permanent infrastructure for eye care in general health services. International co-operation is being extended by WHO/UNICEF, UNDP etc. for the programme. Besides Danish International Development Agency has provided an assistance of Rs. 85 million for mobile units, and to strengthen PHCs and District hospitals. Financial assistance is being provided to voluntary organisations for organising eye-camps in rural areas.

Tuberculosis: There are at present 653 T.B. clinics in the country including 353 upgraded District T.B. centres. Approximately, 44,000 T.B. beds have been established. There are 17 T.B. demonstration and training centres.

It is estimated that the number of active cases is nearly 9 million of which 2.25 million are infectious. Almost all of the 3,119 towns and urban areas and 575,936 villages are affected by tuberculosis. The Government of India proposes to have one BCG team in every district. There are 320 BCG teams currently functioning in various States and Union Territories.

The National Tuberculosis Institute of India, Bangalore 560003, established by the Government of India in 1959 is responsible for formulating and continuous evaluation of India's National Tuberculosis Programme. It carries out applied research in tuberculosis, epidemiology, bacteriology and B.C.G. vaccination, sociological studies as well as operation research. This institute also arranges for the training of tuberculosis programme workers. There are two more research institutions at Madanapalle, Andhra Pradesh and Tamil Nadu. Training is also imparted at other institutions, such as Vallabhbhai Patel Chest Institute, Delhi.

The B.C.G. Vaccine Laboratory, Guindy, Madras is one of the largest B.C.G. producing laboratories in the world, manufacturing freeze dried vaccine. India is self-sufficient in BCG vaccine.

Venereal Diseases: India has an estimated 20 million people suffering from V.D. which comes to nearly 20 per cent of the reproductive age group. About 5 per cent of the total population suffers from syphilis and an equal percentage from gonorrhoea. Yaws is prevalent in a few districts of Andhra Pradesh, Orissa, Madhya Pradesh and Maharashtra.

V.D control schemes are sponsored by the Union Government, which gives all the money needed to the States and Union Territories. In India, 240 V.D. clinics function, whilst some hospitals have special wards for V.D. patients. A mobile V.D. unit at Safdarjang Hospital, New Delhi, has started functioning since July 1973. Sufficient quantity of VDRL antigen is produced in the country. During 1978 (upto Oct.) 303,120 V.D. cases were examined in the V.D. clinics. During 1979-80 about 452,640 patients were suffering from S.T.D. (Venereal Diseases) in various States & Territories.

Training: Facilities are available in the V.D. Training Centre, Safdarjang Hospital, New Delhi, and the Institute of Venereology, Government General Hospital, Madras. Efforts are being made to establish five regional, teaching and training centres at Bombay, Calcutta, Delhi, Madras and Bhopal.

National Water Supply and Sanitation Programme: This programme was launched in 1954. During the three Plan periods and three Annual Plans, about 418,700 new wells were constructed and 304,000 new hand-operated tubewells were bored. In addition about 554,000 old wells were renovated.

Nearly 36,000 villages with a population of 21.6 million have been provided with water supply. For the water supply and sanitation sector the Fifth Plan had allocated Rs. 10,206 million against Rs. 4,105.3 million in the Fourth Plan.

The programme also provides for the training of public health engineering personnel. The training programme is being implemented at the Victoria Jubilee Technical Institute, Matunga, Bombay 400019, the All India Institute of Hygiene and Public Health, Calcutta, the Engineering College, Guindy, Tamil Nadu and the Engineering College, Roorkee, Uttar Pradesh. The Central Public Health Engineering Organisation (C/o Min. of Health and Fly. Welfare) has been set up for helping State Governments in the preparation and execution of their schemes and for giving technical advice and guidance. Similar organisations have also been established in most of the States.

HEALTH EDUCATION: The Central Health Education Bureau at Temple Lane, Kotla Road, New Delhi 110002, established in November 1956, co-ordinates and promotes health education in the country through Health Education Bureaux established in the States and Union Territories.

The Bureau conducts a one-year Diploma in Health Education under the auspices of the University of Delhi and conducts in-service training programmes for health and family planning personnel such as, medical officers, mass education and information officers, media personnel etc. It conducts research on behavioural aspects of health and develops health education curricula for different age groups of students and teacher training courses. The Bureau organises exhibitions, maintains a film library and produces educational and publicity materials for National Health Programmes and programmes for promoting MCH nutrition and immunisation and against the menace of food and drug adulteration.

Publications: The Central Health Education Bureau publishes monthly journals *Swasth Hind* (English) and *Arogya Sandesh* (Hindi) for general readers and *Directorate General of Health Services Chronicle* for medical personnel.

It also produces health education material—folders, pamphlets, posters, filmstrips, etc. for use by health personnel and the general public.

FOOD AND NUTRITION: Several measures are being taken to meet the nutritional deficiency of certain vulnerable groups such as industrial workers, expectant and nursing mothers and school children. Skim milk powder supplied by UNICEF and other organisations is distributed to children and expectant and nursing mothers. Midday meals are provided to about 13.1 million primary school children. Other schemes being implemented are protein supplement to the diet of the vulnerable groups, opening of canteens in industrial concerns and offices and manufacture and popularisation of cheap and nutritious food.

Malnutrition is one of the major factors responsible for high mortality and morbidity in India. Nutrition divisions have been established in Health Dept. of 18 States and two Union Territories to tackle the problem of malnutrition. Those divisions assess the incidence of nutritional deficiencies among various groups, conduct nutrition education campaigns and supervise supplementary feeding programmes.

Quality control over food articles is exercised under the Prevention of Food Adulteration Act, 1954 (amended in Feb. 1976). Excepting Maharashtra, Assam and Kerala where the States have taken the responsibility, in all other States the work is left to the local bodies. The Director-General of Health has established a Food Squad under the Act to check adulteration of food at inter-state level. A few States like Madhya Pradesh, Andhra Pradesh, Gujarat, Maharashtra, Delhi and Pondicherry have also established separate food and drugs directorates.

Central Food Laboratories: The Prevention of Food Adulteration Act (amended in 1976) provides for the establishment of (four) Central Food Laboratories, viz. State Public Health Laboratory, Pune (West Zone); Central Food Laboratory, Mysore (Southern Zone); Food Research and Standardisation Laboratory, Ghaziabad (Northern Zone) and Central Food Laboratory, Calcutta (Eastern Zone).

The Government of India proposes to have regular refresher training course at the Central Food Technological Research Institute, Mysore, for analysts working in the country.

A two weeks' refresher course for senior Health Officers and administrators in the implementation of the Prevention of Food Adulteration Act is imparted in collaboration with the Indian Institute of Public Administration at New Delhi.

MEDICAL EDUCATION: There are 106 medical colleges with over 12,000 annual admissions in the country.

Dental Education: There are now 22 dental institutions, all affiliated to universities, training students for the degree of Bachelor of Dental Surgery (B.D.S.), having facilities for about 866 admissions. Fourteen of these institutions have post-graduate degree courses leading to M.D.S. and two institutions have 1½ year dental hygienist-cum-chairside dental assistant course.

(Refer to the chapter on "Education" for the list of dental institutions.)

Pharmacy: (See chapter on "Education", for institutes and/or universities teaching pharmacy.)

STATUTORY COUNCILS

Medical Council of India: Established under the Indian Medical Council Act of 1933 and reconstituted under the Indian Medical Council Act, 1956, this Council is responsible for the maintenance of the Indian Medical Register, uniform standards of medical education and for recognition of medical qualifications in the country. The total number of doctors on the Medical Register upto 31st December 1981 was 282,098.

Dental Council of India: This council was established under the Dentists Act of 1948 for the regulation of the profession of dentistry. It maintains uniform standards of dental education in the country. It also maintains the registers of qualified dentists, dental hygienists and dental mechanics, respectively. The number of dentists on the State Dentists Registers of the various State Dental Councils as on 1st April 1982 was 8,648.

Pharmacy Council of India: Was constituted under the Pharmacy Act, 1948 to prescribe the minimum educational standards for qualification as a pharmacist, to ensure that these standards are uniformly enforced throughout the country and to recognise qualifications in pharmacy granted outside the said Act which offered sufficient guarantee of the requisite skill and knowledge.

By 1980 the diploma courses in pharmacy were being conducted at 72 centres having annual admissions of 3,760 and degree course in pharmacy at 29 centres having annual admission of 1,039 per annum. The list of pharmacy institutions is given under the chapter on 'Education'.

The registration of pharmacists is the responsibility of the State Government's State Pharmacy Councils.

Indian Nursing Council: (Medical Council Building, Temple Lane, Kotla Road, New Delhi-110002.) The Council established under the Indian Nursing Act, 1947, is responsible for laying down uniform standards of nursing education.

The number of training institutions for nursing personnel and of students (in brackets) under training at the end of 1980 respectively were as follows:

Nurses: 286 (22,710); Midwives: 276 (2,901); Auxiliary Nurse Midwives: 323 (10,916); Health Visitors: 21 (735); B.Sc. (Nursing): 8 (1,155). During 1979-80 there were 146,201 registered nurses in India.

(See chapter on **State Associations** for State-wise list of medical associations)

Availability of Health Services in India

Items & Units	1960-61	1981-82
Hospital beds ('000)	186	505
Primary health centres (number)	2,800	5,739
Sub-centres (number)	1,649	59,511
Medical colleges (number)	57	106
Doctors ('000)	70	269
Nurses ('000)	27	150
Auxiliary nurses, midwives ('000)	19.9	218
Public health expenditure (Rs. million)	890	N.A.

Availability of Health Services in India

Items	1960-61*	1980-81*
Doctors	15.9	27.8
Beds	42.4	69.6
Auxiliary nurses/midwives	1.4	17.9
Nurses	6.2	

*Per 100,000 population

*Sources: 1. Draft of Fifth Five-Year Plan. 2. Ministry of Health and Family Welfare, Directorate General of Health Services, New Delhi.
(See also "Commercial Firms" — Manufacturers and Services).

POPULATION

INDIA'S total population touched 685 million on 1st March, 1981. This represents an increase of 25.0 per cent since 1971 when the population was 548 million. The main cause of this increase can be attributed to a fall in the death rate due to better health conditions. Efficient handling of epidemics and other natural calamities coupled with general improvement in economic conditions have also contributed to a rise in population apart from natural increase due to births.

Census: Most of the population data in India is available from the Census. The first synchronous Census in India was taken in 1881, and since then a Census has been taken every tenth year. The last of the series is the Census of 1981 which gives the population count at the sunrise of 1st March, 1981. Generally the Census count in India refers to the sunrise of 1st March, but because of the mid-term General Election the Census date of the 1971 Census was shifted by one month and it refers to the sunrise of 1st April, 1971.

The 1981 Census: The enumeration of the 1981 Census began on 9th February, 1981 and ended on 28th February, 1981. A revisional round was conducted during 1st to 5th March, 1981 to up-to-date the figures for the sunrise of 1st March, 1981. The houseless persons were enumerated on the night of 28th February, 1981.

The 1981 Census was conducted synchronously in all the States and Union Territories except for Assam and Jammu and Kashmir. In Jammu and Kashmir the enumeration was done from 20th April to 5th May, 1981 with the reference date being the sunrise of 6th May, 1981. The revisional round was conducted during 6th to 10th May, 1981. In Assam, Census could not be conducted synchronously because of the disturbed conditions. In order to determine the total population of the country as on 1st March 1981, the population of Assam has been borrowed from the estimates of the Expert Committee on Population Projections set up by the Planning Commission.

The Census Organisation on the basis of the 1981 Census has published final population totals and some other information. In the present section the figures have been updated wherever available and the remaining are based on the previous Census.

Number: India's population in 1981 numbered 685,184,692, comprising about 354 million males and 331 million females.

Growth: India's population which was 238 million in 1901 increased to 361 million in 1951 and to 685 million in 1981. Thus, in the first half of the present century, that is, during 1901-51, India's population increased by about 51.5 per cent whereas in the next thirty years during 1951-81 it increased by nearly 89.8 per cent

The rate of growth of India's population till the 1951 Census was slow and since then it has tended to increase at a faster rate. During the period 1921-51, India's population increased at a moderate rate but after the 1951 census it increased at an accelerated rate because of decline in death rate caused by health programmes initiated by the Government to control/eradication of epidemic and communicable diseases. It may be mentioned that during the decade 1911-21, India's population experienced a negative growth, excess of deaths over births, due to natural calamities and epidemics. During the inter-censal period 1961-71 the population increased by 24.80 per cent. Again, during 1971-81 the population experienced a growth of 25.0 per cent. This signifies that the growth of India's population has somewhat stabilised and may start declining with decline in fertility levels.

Future Growth: The recent increase in India's growth rate is due to a fall in the death rate and not due to any increase in the birth rate. The death rate has declined considerably in the last 60 years. Reliable estimates of birth and death rates are not available in India because of the shortcoming of the registration data. Efforts are being made by the Registrar-General of India to improve the quality of the registration data and a scheme called the Sample Registration System has been launched in different parts of India. The object of the scheme is to have sample areas, both urban and rural, in different States and Union Territories and to obtain reliable birth and death data in these areas. Most reliable estimates, however, point out that the **Birth-rate** in India in 1961 was around 43 and **Death rate** around 21 per 1,000 population. The sample registration system estimated that the birth rate in 1980 was 33.3 and the death rate 12.4. The birth rate in the rural areas was 34.6 and in the urban areas 28.1, whereas, the death rate was 13.5 and 8.0 respectively. It is estimated that the death rate might decline still further and reach the low level of 10 per 1,000 population by 1990 or so. Birth rate would, therefore, be the crucial factor in determining the future growth of India's population.

Expectation of Life and Death Rate: According to the estimates of the Sample Registration System, the expectation of life at birth for 1970-75 was 50.5 years for males and 49.0 years for females.

Growth of Population from 1901-1981

Year	Persons	Per cent Decade Variation
1901	238,396,327	—
1911	252,093,390	5.75
1921	251,321,213	(—)0.31
1931	278,977,238	11.00
1941	318,660,580	14.22
1951	361,088,090	13.31
1961	439,234,771	21.64
1971	548,159,652	24.80
1981	685,184,692	25.00

State-wise Growth Rate: The decennial growth rate of 1971-81 shows that the highest rate was observed in the Union Territory of Chandigarh followed by Andaman and Nicobar Islands and Delhi. In case of States, the highest rate was observed in Sikkim followed by Nagaland, Assam, Manipur and Tripura. The differential growth rate is due to differences in birth and death rates and in internal migration.

Age Structure: One of the consequences of high birth rate is that India has a 'young' population. Nearly 42.0 per cent of India's population in the 1971 Census was below the age of 15 years and only 6.0 per cent of the population was aged 60 years and over.

Income Structure: The average per capita income in the country at current prices has shown an increase in 1979-80 compared to the previous year but at the 1970-71 prices it has decreased.

The average **per capita income** in 1979-80 was Rs. 1,379 at current prices and Rs. 678 at the 1970-71 prices

In 1978-79 the average per capita income in India was Rs. 1,267 at current prices and Rs. 728 at 1970-71 prices.

Rural-Urban: A very large proportion of India's population lives in rural areas. However, urban population has grown from about 9 per cent in 1881 to about 23.3 per cent in 1981. Leaving aside the Union Territories, the most urbanised State in India is Maharashtra, in which about 35 per cent of the population was found living in the urban areas at the time of the 1981 Census. Bihar, Himachal Pradesh, Orissa and Tripura are less urbanised States with less than 15 per cent urban population.

Rural-Urban Population*, 1981

Residence	Persons
Total	685,184,692
Rural	525,457,335
Urban	159,727,357

*Includes projected figures for Assam

Some Demographic Characteristics of India's Population, States and Union Territories, 1981

States	Population (in '000)		Decennial growth rate (per cent)	Sex Ratio (females per 1,000 males)	Density (persons per sq. km.)	Literacy Rate		Percentage increase	Percentage of urban population
	1971	1981				1971	1981		
ALL INDIA	548,160	685,185	25.00	936	220	29.45	36.12	22.65	23.31
1. Andhra Pradesh	43,503	53,550	23.10	976	195	24.57	29.72	20.96	23.32
2. Assam*	14,625	19,897	36.05	NA	NA	28.15	NA	NA	10.29
3. Bihar	56,353	69,915	24.06	946	402	19.94	26.20	31.39	12.47
4. Gujarat	26,697	34,086	27.67	942	173	35.79	43.75	22.24	31.10
5. Haryana	10,037	12,923	28.75	877	291	26.89	35.84	33.28	21.88
6. Himachal Pradesh	3,460	4,281	23.71	988	76	31.96	41.94	31.23	7.61
7. Jammu and Kashmir	4,617	5,987	29.69	899	NA	18.58	26.17	40.85	21.05
8. Karnataka	29,299	37,136	26.75	963	193	31.52	38.41	21.86	28.89
9. Kerala	21,347	25,454	19.24	1,034	654	60.42	69.17	14.48	18.74
10. Madhya Pradesh	41,654	52,179	25.27	941	118	22.14	27.82	25.65	20.29
11. Maharashtra	50,412	62,784	24.54	938	204	39.18	47.02	20.01	35.03
12. Manipur	1,073	1,421	32.46	972	63	32.91	41.52	26.16	26.42
13. Meghalaya	1,012	1,336	32.04	955	59	29.49	33.35	13.09	18.07
14. Nagaland	516	775	50.05	867	47	27.40	41.99	53.25	15.52
15. Orissa	21,945	26,370	20.17	982	169	26.18	34.12	30.33	11.79
16. Punjab	13,551	16,789	23.89	886	331	33.67	40.74	21.00	27.68
17. Rajasthan	25,766	34,262	32.97	921	100	19.07	24.05	26.11	21.04
18. Sikkim	210	316	50.77	837	44	17.74	33.92	91.21	16.15
19. Tamil Nadu	41,199	48,408	17.50	978	371	39.46	45.78	16.02	32.95
20. Tripura	1,556	2,053	31.92	948	195	30.98	41.78	56.35	10.99
21. Uttar Pradesh	88,341	110,862	25.49	886	377	21.70	27.40	26.27	17.95
22. West Bengal	44,312	54,581	23.17	911	614	33.20	40.88	23.13	26.47
UNION TERRITORIES									
1. A. & N. Islands	115	189	63.93	761	23	43.59	51.27	17.62	26.30
2. Arunachal Pradesh	468	632	35.15	870	7	11.29	20.09	77.95	6.56
3. Chandigarh	257	452	75.55	770	3,948	61.56	64.68	5.07	93.63
4. Dadra & Nagar Haveli	74	104	39.78	974	211	14.97	26.70	78.36	6.67
5. Delhi	4,066	6,220	53.00	810	4,178	55.61	61.06	9.80	92.73
6. Goa, Daman & Diu	858	1,087	26.69	981	284	44.75	55.86	24.83	32.37
7. Lakshadweep	32	40	26.53	975	1,257	43.66	54.72	25.33	46.28
8. Mizoram	332	494	48.55	936	23	53.79	59.50	10.90	24.67
9. Pondicherry	472	604	28.15	985	1,228	46.02	54.07	17.49	52.28

*For Assam the 1981 population is projected figure.

Population Growth in Metropolitan Cities (Urban Agglomeration) during 1901-81.

Metropolitan Cities	Population (in thousands)					Percentage growth over 1901
	1901	1951	1961	1971	1981	
Calcutta	1,488	4,589	5,737	7,031	9,194	517.7
Greater Bombay	813	2,967	4,152	5,971	8,243	914.1
Delhi	214	1,437	2,359	3,647	5,768	2,594.0
Madras	594	1,542	1,945	3,170	4,289	621.6
Bangalore	159	779	1,200	1,654	2,922	1,737.0
Ahmedabad	186	877	1,206	1,742	2,548	1,270.7
Hyderabad	448	1,128	1,249	1,796	2,546	467.7
Pune	164	606	791	1,135	1,686	927.4
Kanpur	203	705	971	1,275	1,639	708.2
Nagpur	166	485	690	930	1,302	681.4
Jaipur	160	304	410	637	1,015	533.8
Lucknow	256	497	656	814	1,008	293.2

TABLE II

Some Demographic Characteristics of India's Population, States and Union Territories, 1981

State/Union Territory	Proportion of Workers (percentage)			Distribution of Workers by broad categories				Mean age at marriage in 1971	
	Total	Male	Female	Cultivators	Agri. labourers	Household industry	Other Workers	Male	Female
INDIA*	33.44	51 23	14.44	41.53	25.16	3.99	29.32	22.4	17.2
Andhra Pradesh	42.18	56.16	27.87	32.60	36.68	5.43	25.29	22.7	16.2
Assam	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	25.6	18.7
Bihar	29.66	49.08	9.16	43.77	35.44	3.01	17.78	19.9	15.3
Gujarat	32.40	51.77	11.85	37.76	22.82	2.71	36.71	22.2	18.4
Haryana	27.92	48.17	4.82	44.97	16.40	3.36	35.27	20.6	17.6
Himachal Pradesh	33.89	48.81	18.80	69.44	2.92	2.65	24.99	23.1	17.7
Jammu & Kashmir	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	23.6	17.7
Karnataka	36.82	53.75	19.23	38.46	26.66	4.58	30.30	25.1	17.8
Kerala	26.54	40.77	12.79	13.18	28.19	4.09	54.54	26.8	21.0
Madhya Pradesh	38.49	53.43	22.63	52.10	24.17	3.80	19.93	19.3	15.0
Maharashtra	38.71	52:14	24.39	34.84	26.79	3.14	35.23	23.6	17.5
Manipur	41.68	46.69	36.52	59.22	7.88	10.89	22.01	26.2	22.3
Meghalaya	44.20	53.02	34.97	63.56	9.92	1.09	25.43	25.3	19.9
Nagaland	45.79	50.09	40.83	70.49	1.87	1.43	26.21	27.5	23.6
Orissa	32.82	54.38	10.88	47.00	27.65	3.47	21.88	22.7	17.3
Punjab	29.03	52.01	3.09	36.32	22.83	3.44	37.41	23.3	20.6
Rajasthan	30.35	49.65	9.44	62.18	7.37	3.65	26.80	19.5	15.1
Sikkim	46.42	56.23	34.68	60.65	3.55	1.40	34.40	25.5	21.6
Tamil Nadu	39.15	55.36	22.57	29.40	31.45	5.12	34.03	26.0	19.6
Tripura	29.61	49.06	9.08	43.57	23.91	1.62	30.90	25.2	18.3
Uttar Pradesh	29.13	49.61	6.02	58.02	16.32	4.39	21.27	19.3	15.4
West Bengal	28.47	48.97	5.97	30.64	24.81	4.12	40.43	24.5	18.0
Union Territories									
A. & N. Islands	32.96	54.22	5.03	16.45	3.70	4.10	75.75	26.1	18.0
Arunachal Pradesh	49.19	56.63	40.64	72.29	2.45	0.41	24.85	25.2	19.2
Chandigarh	34.46	54.17	8.87	1.35	0.52	1.14	96.99	24.3	20.5
Dadra & Nagar Haveli	40.85	55.11	26.20	61.87	10.79	0.83	26.51	20.9	18.0
Delhi	30.79	50.57	6.39	1.93	0.86	3.76	93.45	23.7	19.9
Goa, Daman & Diu	30.63	45.86	15.10	18.90	9.78	4.13	67.19	26.9	21.3
Lakshadweep	19.71	33.50	5.57	—	—	12.69	87.31	24.2	17.7
Mizoram	41.21	49.14	32.73	72.11	2.56	1.28	24.05	—	—
Pondicherry	28.61	45.90	11.05	9.44	30.92	2.64	57.00	26.2	19.3

* The 1981 figures exclude Assam and Jammu & Kashmir. N.A. — Not available.

Table III

Some Demographic Characteristics of India's Population, 1901-1981

Year	Population (in million)	Density per square km.	Sex ratio (females per 1,000 males)	Percentage		Percentage of population by religion				Percentage of literate and illiterate population		Number of persons per household
				Rural	Urban	Hindu	Muslim	Christian	Sikh	Literate	Illiterate	
1901	238.4	77	972	89.2	10.8	70.4	21.2	1.0	0.8	5.4	94.7	5.27
1911	252.1	82	964	89.7	10.3	69.4	21.3	1.2	1.0	5.6	94.1	4.95
1921	251.3	81	955	88.8	11.2	68.6	21.7	1.5	1.0	7.2	92.8	4.89
1931	279.0	90	950	88.0	12.0	68.2	22.2	1.8	1.2	9.5	90.5	4.97
1941	318.7	109	945	80.1	13.9	65.9	23.8	1.6	1.5	N.A.	N.A.	5.12
1951	361.1	117	946	82.7	17.3	85.0	9.9	2.3	1.7	16.7	83.3	4.90
1961	439.2	142	941	82.0	18.0	83.5	10.7	2.4	1.8	24.0	76.0	5.16
1971	548.2	177	930	80.1	19.9	82.7	11.2	2.6	1.9	29.5	70.5	5.46
1981	685	220	936	76.7	23.3	—	—	—	—	36.1	63.9	—

N.A.—Not available.

In the 1981 Census it was observed that about 60.4 per cent of the urban population of India lives in towns having a population of 100,000 and more. The corresponding figure for 1971 was 48.9 per cent. The growth of population in towns of large size is generally greater than in medium and small towns

As per the 1981 Census, there are 12 cities which have population of one million and above and these are Calcutta, Greater Bombay, Delhi, Madras, Bangalore, Ahmedabad, Hyderabad, Pune, Kanpur, Nagpur, Jaipur and Lucknow.

The twelve metropolitan cities (with their respective Urban Agglomeration figures) in India:

1. Calcutta	9,194,018
2. Greater Bombay	8,243,405
3. Delhi	5,768,200
4. Madras	4,289,347
5. Bangalore	2,921,751
6. Ahmedabad	2,548,057
7. Hyderabad	2,545,836
8. Pune	1,686,109
9. Kanpur	1,639,064
10. Nagpur	1,302,066
11. Jaipur	1,015,160
12. Lucknow	1,007,604

A city is regarded as metropolitan when its population exceeds one million.

Sex Ratio: There are more males than females in India. In 1961 the sex ratio was 941 females per 1,000 males and in 1971 it decreased to 932 females per 1,000 males. Differential mortality by sex may be responsible for this disparity in the sex composition. However, in the 1981 Census the situation improved and the sex ratio worked out to 936 females per 1,000 males. Probably during the decade 1971-81 the females gained comparatively more from the health programmes than the males. Only in Kerala the sex ratio is favourable to females and in other places it is favourable to males. In Haryana, Jammu & Kashmir, Nagaland, Punjab, Sikkim, Uttar Pradesh, Andaman & Nicobar Islands, Arunachal Pradesh, Chandigarh and Delhi the sex ratio is highly favourable to males where it is estimated to be less than 900 females per 1,000 males.

Literacy: Literacy which is defined as capacity to read and write with understanding in any language was as low as 5.8 per cent in 1891 and only 9.5 per cent in 1931. In 1981 it had increased to 36.1 per cent. Male literacy was found to be nearly 47 per cent and female literacy about 25 per cent. Rural areas have lower literacy rate than urban areas.

Religious break-up: According to the 1971 Census 82.7 per cent of India's population belonged to the Hindu religion and about 11.2 per cent to the Muslim religion. The percentage of the Christians and the Sikhs was 2.6 and 1.9 respectively.

Religion		Number	Percentage to total population	Percentage increase in 1961-71
Hindus	..	453,436,630	82.72	23.69
Muslims	..	61,418,269	11.20	30.84
Christians	..	14,225,045	2.59	32.58
Sikhs	..	10,378,891	1.89	32.28
Buddhists	..	3,874,942	0.71	17.33
Jains	..	2,604,837	0.48	28.49
Scheduled Castes	..	80,005,398	14.60	24.14
.. Tribes	..	38,015,162	6.94	26.00

Age at Marriage: In India, age at marriage is very low because of the prevalence of child marriages. From time to time suitable legislations have been passed specifying the minimum age at marriage for boys and girls. Nevertheless, a sizeable number of boys and girls seem to be married below the specified minimum age. However, the age at marriage shows an increasing trend over the decades which is an indicator of social change.

Decade		Age at marriage	
		Male	Female
1921-31	..	18.4	12.5
1931-41	..	20.3	14.4
1941-51	..	19.9	15.4
1951-61	..	21.8	15.4
1961-71	..	22.2	17.2

Age at Widowhood: It was found in the 1911 Census that 17.3 per cent of the females were widows. This percentage declined to 15.5 in 1931 and to 8.9 in 1971. The mean age at widowhood of those who are widowed by age 45 was found to be 34 years in the 1951-61 decade and 34.8 years in the 1961-71 decade.

Fertility: The fertility of Indian women is high and about 5.5 children are born to a couple who remain married throughout the reproductive period. This average number is, however, reduced to 5 when all ever-married women, that is, those who are widowed, divorced or separated are considered.

The pattern of age-specific fertility among females between the ages 15-44 shows that highest fertility exists among females in the ages between 20 to 29 years. The fertility curve shows a low but significant rate in the ages 15-19 years, a sharp rise in the age group 20-24 and 25-29 and a sharp decline after the age of 35.

Of the children born in a year roughly 62 per cent in rural India and 67 per cent in urban India are of first-three order births and 38 per cent and 33 per cent are of the fourth and higher order birth. About 23.5 per cent and 25.3 per cent are first order births, 20.9 and 23.5 per cent second order births, 17.2 and 17.8 per cent are third order births, 13.7 and 12.4 per cent fourth order births, 9.7 and 7.7 per cent fifth order births, and about 15.2 and 13.7 per cent sixth and higher order births in rural and urban India respectively.

There is some evidence to indicate that fertility of those women who are educated above Matriculation and also of those who marry after the age of 19 is lower than of those who are less educated or marry earlier.

Working Force: According to the 1981 Census, roughly 33.4 per cent of the population of India was in the working force. About 51.2 per cent of the males and 14.4 per cent of the females were workers. A larger proportion of the rural population was in working force. The work participation rate by residence shows that 34.8 per cent of the rural population (52.2 per cent male and 16.5 per cent female) was in working force whereas 29.2 per cent of the urban population (48.2 per cent male and 7.6 per cent female) was in working force.

Among the workers, nearly 42 per cent are cultivators, 25 per cent are agricultural labourers, 4 per cent are engaged in household industry and 29 per cent in other activities. In the rural areas nearly 51 per cent of the workers were cultivators, 30 per cent were agricultural labourers, 3 per cent are engaged in household industry and 16 per cent in other occupations. In urban areas nearly 5 per cent of the workers were cultivators, 6 per cent agricultural labourers, another 6 per cent are engaged in household industry and 83 per cent in other occupations.

Poverty Line: At least 294 million people in the rural and urban areas were living below the poverty line during 1977-78 under the norms adopted by the Planning Commission.

First Six States Area-wise: Madhya Pradesh (443.4 sq. kms.); Rajasthan (342.2 sq. kms.); Maharashtra (307.7 sq. kms.); Uttar Pradesh (294.4 sq. kms.); Andhra Pradesh (275.1 sq. kms.); and Gujarat (196.0 sq. kms.).

First Six States Population-wise: Uttar Pradesh (110,862,013); Bihar (69,914,734); Maharashtra (62,784,171); West Bengal (54,580,647); Andhra Pradesh (53,549,673); Madhya Pradesh (52,178,844).

Language-wise Break-up: According to 1971 Census, about 25 million people or 4.5 per cent of the total population speak their mother tongue other than the 15 languages listed in the Constitution.

The break-down of the population in terms of the 15 Constitutional languages is as follows (figures in million): Assamese — 8.96: Bengali — 44.79; Gujarati — 25.87; Hindi — 208.51; Kannada — 21.71; Kashmiri — 2.50; Malayalam — 21.94; Marathi — 41.77; Oriya — 19.86, Punjabi — 14.11; Sindhi — 1.68; Sanskrit— 2,212 (persons); Tamil — 37.69; Telugu — 44.76; Urdu — 28.62.

Six Most Thickly Populated States: (figures per sq. km.): The six most thickly populated States, excluding the Union Territories, according to the 1981 Census are: Kerala (654); West Bengal (614); Bihar (402); Uttar Pradesh (377); Tamil Nadu (271); and Punjab (331).

National Average Density: 220 per sq. km.

Density in Union Territories: (per sq. km.) (First three). Delhi (4,178); Chandigarh (3,948); Lakshadweep (1,228).

Per Capita Net Domestic Product for Different States

State/Union Territory	Year	Per capita (Rs.) (At current prices)	Per capita (Rs.) (At constant prices)
Andhra Pradesh	1977-78	1,002	322
Assam	1977-78	866	552
Bihar	1976-77	700	422
Delhi	1976-77	2,213	785
Goa, Daman & Diu	1976-77	1,686	1,240
Gujarat	1976-77	1,341	400
Haryana	1976-77	1,472	482
Himachal Pradesh	1977-78	1,154	359
Jammu & Kashmir	1977-78	986	355
Karnataka	1976-77	1,002	366
Kerala	1976-77	968	291
Madhya Pradesh	1977-78	896	494*
Maharashtra	1977-78	1,628	527
Manipur	1977-78	799	500*
Meghalaya	1973-74	598	N.A.
Orissa	1975-76	785	523*
Pondicherry	1976-77	1,341	N.A.
Punjab	1977-78	1,991	625
Rajasthan	1977-78	925	308
Tamil Nadu	1977-78	1,031	657*
Tripura	1975-76	813	374
Uttar Pradesh	1977-78	892	503*
West Bengal	1976-77	1,047	387

Source: Family Welfare Programme, *Year Book*, 1978-79 (Ministry of Health & Family Welfare, New Delhi), Table C. 2, p. 59.

* Base: 1970-71. N.A.—Not available.

Population Projections upto 1991

(in Million)

Year	Males	Females	Total
1971	283.5	263.6	547.1
1976	315.4	293.7	609.1
1981	347.6	324.4	672.0
1986	379.8	355.3	735.1
1991	412.4	386.5	798.9

The projected figures given above are of Projection III, prepared by the Expert Committee on Population Projections set up by the Planning Commission and has been recommended for official use. Projection III is based on the assumption that birth rate in India will reach a level of thirty per thousand population by 1982-83 and thereafter it will reduce by one point every year. As a result of the decline in the birth rate, the percentage of population in the age group 0-14, which at the time of the 1971 Census was around 41.5 will come down to 34.3 in 1991. The working age population in the age group 15-59 will however, increase. Its percentage which in 1971 was 53.3 will increase to 59.3 in 1991. However, on 1st March 1981, about 684 million persons were enumerated in the country. Thus, the projected population fell short of the enumerated population by about 12 million.

Literacy Rate by Sex, 1981

State/Union Territories	Persons	Males	Females
INDIA	36.12*	46.72*	24.80*
Andhra Pradesh	29.72	39.03	20.18
Bihar	26.01	37.78	13.58
Gujarat	43.75	54.53	32.31
Haryana	35.84	47.78	22.23
Himachal Pradesh	41.94	52.36	31.39
Jammu & Kashmir	26.17	35.49	15.82
Karnataka	38.41	48.61	27.83
Kerala	69.17	74.03	64.48
Madhya Pradesh	27.82	39.38	15.54
Maharashtra	47.37	58.89	35.08
Manipur	41.99	52.97	30.69
Meghalaya	33.22	36.98	29.28
Nagaland	41.99	49.16	33.77
Orissa	34.12	46.90	21.11
Punjab	40.74	46.59	34.14
Rajasthan	25.05	35.78	11.22
Sikkim	33.83	43.65	22.07
Tamil Nadu	45.78	57.19	34.12
Tripura	41.58	51.05	31.60
Uttar Pradesh	27.38	38.87	14.42
West Bengal	40.88	50.49	30.33
Andaman and Nicobar	51.27	58.44	41.85
Arunachal Pradesh	20.09	27.98	11.02
Chadigarh	64.68	68.82	58.30
Dadra and Nagar Haveli	26.60	36.19	16.75
Delhi	61.06	67.95	52.56
Goa, Daman and Diu	55.86	64.77	46.78
Lakshadweep	54.72	64.97	44.21
Pondicherry	54.23	64.00	44.30
Mizoram	59.50	65.99	52.57

*Excludes Assam.

HOUSING

THE problem of housing in India is a complex one, requiring finances on a large scale, and is dependent for its solution on the concerted efforts of individuals, co-operatives and Central and State Governments to be planned and executed over a number of years. With a growing population and the steady shift of population from the rural to the urban areas, the problem has become more difficult, both in qualitative and quantitative terms.

The total number of households in 1970 was 97.0 million—78.0 million in the rural areas and 19.0 million in the urban areas. Their numbers rose to 103.1 million at the beginning of the Fifth-Five Year Plan in 1974—81.4 million in rural areas and 21.7 million in urban areas. It is estimated that the growth of population alone demands 2 million dwelling units every year.

Shortage: The shortage of housing units at the beginning of the Fifth Plan (on the criterion that (i) every household in the urban areas should have a *pucca* house or semi-*pucca* house; and (ii) every household in rural areas should have a *pucca*, semi-*pucca*, or serviceable *katcha* house) has been estimated by the National Building Organisation at 15.6 million units—11.8 million in rural areas and 3.8 million in urban areas respectively.

On the basis of the 1971 Census and population projections made by the Registrar-General of India for 1981, the shortage of housing is estimated by the National Buildings Organisation at 21.3 million units—16.5 million in rural and 4.8 million in urban areas.

The priority in the Sixth Five-Year Plan (1980-85) is to focus the attention on the housing needs of absolutely shelterless people. The Plan outlay provides Rs. 8,373.7 million for Social Housing Schemes and Rs. 3,535 million for Rural House-sites-cum-Construction Assistance Scheme for the rural landless.

Household Incomes: Family incomes naturally, play a great part in a family's ability to acquire or afford a home. Income of families in the urban areas are much higher than families in the rural areas. For instance in Greater Bombay 56 per cent families have an income of less than Rs. 350 a month and 28 per cent less than Rs. 600 a month.

In the Asansol Industrial area of West Bengal 80 per cent families earned less than Rs. 350 a month and 19 per cent less than Rs. 600.

Household Expenditure: It is observed that an increasing amount of a family's income goes towards the purchase of food alone. A low income family's inability to pay for shelter can be seen from the expenditure pattern of the various income groups compiled by the Town and Country Planning Organisation, New Delhi. The survey covers South Delhi and is deemed to be representative for all major urban areas of the country (See table on next page).

HOUSING SCHEMES

(a) Central Sector Schemes:

Subsidised Housing Scheme for Plantation Workers: This scheme was transferred from the State to the Central Sector in 1970. The Central Government provides 50 per cent loan and 37.5 per cent grant for construction of homes to be occupied by the plantation workers free of rent. This scheme is being implemented in Assam, Tripura, West Bengal, Karnataka, Kerala and Tamil Nadu. The scheme has recently also been extended to Uttar Pradesh.

About 24,000 houses have so far been constructed in all the six States.

(b) State Sector Schemes:

Scheme for Provision of House-sites to Landless Workers in Rural Areas: The scheme aims at providing house-sites, free of cost, to families of landless workers and artisans like carpenters, potters, fishermen etc., in rural areas, who do not own a house-site or a built-up house or a hut on land of their own. It is proposed to cover all the landless families numbering about 14.5 million by 1985.

Since the inception of the scheme in 1971 and till December 1982, 10.4 million families have been provided with house-sites and about 2.2 million families with construction assistance.

The Sixth Plan envisages to provide sites to 6.8 million landless families and financial assistance for house construction to 3.6 million families at a total cost of Rs. 3,535 million.

Integrated Subsidised Housing Scheme for Industrial Workers and Economically Weaker Sections of the Community: Up to December 1981, 188,871 houses had been constructed.

Low Income Group Housing Scheme: The scheme provides for loan assistance up to 80 per cent of the approved cost of a house subject to a maximum of Rs. 14,500, to persons whose annual income does not exceed Rs. 7,200. Up to 31st December 1981, 342,639 houses had been constructed.

Growth of population in larger urban centres in India

Urban Centres		Population in 1981 (in million)	Increase over 1971 (in percentage)
Calcutta (U.A.)	..	9.16	30.4
Gr. Bombay (U.A.)	..	8.20	37.4
Delhi (U.A.)	..	5.22	43.4
Madras (U.A.)	..	4.27	34.9
Hyderabad (U.A.)	..	2.91	76.2
Bangalore (U.A.)	.	2.56	42.9
Ahmedabad (U.A.)	..	2.51	44.4
Kanpur (U.A.)	..	1.68	32.2
Pune (U.A.)	..	1.68	48.5
Nagpur	..	1.29	39.6
Total	..	39.53	39.46

U.A. Urban Agglomeration.

Source: Census of India—1981—General population tables—series 1.

The average number of persons per room in some larger cities of India is given in the table below:

Cities		Average No. of persons per room 1961	1971
Calcutta (M.C.)	..	3.03	3.40
Greater Bombay	..	3.79	3.99
Delhi (M.C.)	..	3.18	3.04
New Delhi (M.C.)	..	2.79	2.76
Madras (M.C.)	..	2.93	3.01
Hyderabad	..	2.41	2.81
Ahmedabad	..	3.11	3.22
Bangalore (M.C.)	..	3.07	2.58
Kanpur (M.C.) and Railway Colonies	..	2.75	2.94
Pune	..	2.96	3.21

M.C. Municipal Corporations

Source: 1. Census of India—1981—Housing and establishment tables Part IV (B). 2. Census of India—1971—Housing tables Part IV (B).

Village Housing Projects Scheme: Under this scheme loans are granted to villagers for construction of a house to the extent of 80 per cent of the cost or a maximum of Rs. 5,000. Loans are also granted to improve the environmental hygiene of the village. Upto the end of December 1980, 69,914 houses had been constructed.

Middle Income Group Housing Scheme: Loans are given to individuals earning between Rs. 7,210-Rs. 18,000 per annum. Loans are restricted to 80 per cent of the cost of construction subject to a maximum of Rs. 27,500. Loans are also given to eligible persons for the purchase of ready built houses. Up to the end of December 1981, 45,741 houses had been completed.

Rental Housing Scheme for State Government Employees: Under this scheme introduced in 1959, State Governments construct houses and rent them to their employees. Up to the end of December 1981, 35,023 houses had been completed.

Land Acquisition & Development Scheme: Financial assistance is given to States for large scale acquisition and development of land to make plots available at reasonable prices to house builders, particularly in the lower income group. The aim of the scheme (started in 1959) is to stabilise land prices, rationalise urban development and promote self-contained composite housing colonies. Up to 31st December 1981, about 13,748 hectares of land had been acquired and 7,438 hectares developed by various State Governments.

(c) House Building Allowances to Central Government Employees

To simplify the procedure and to cut down administrative delays, sanction of House Building Advances was decentralised from April, 1978. Ministries/Departments concerned were authorised to scrutinise and sanction advances out of funds allocated by the Housing Ministry. Out of the total revised Budget grant of Rs. 320 million, Rs. 314 million (approx.) has been allocated to the Ministries/Departments upto the end of December 1982 and the balance is to be allocated during the remaining period of the financial year 1982-83.

Research: National Buildings Organisation, Nirman Bhavan, Maulana Azad Rd., New Delhi 110011, is engaged in documentation and dissemination of information on building science and technology to bring about improvement in quality of building construction and reduction in cost.

It is also the co-ordinating agency for housing and building statistics as well, and sponsors and conducts studies in socio-economic aspects of housing.

Central Building Research Institute, Roorkee, U.P.: Assists the building industry by developing new materials and techniques to achieve economy and efficiency.

Loans from Life Insurance Corporation to State Governments: Life Insurance Corporation has been lending money to State Governments every year in accordance with the allocation made by the Centre for the implementation of social housing schemes. These loans amounted to Rs. 3,861.6 million up to 1982-83, including Rs. 314.9 million during 1982-83. Similarly the General Insurance Corporation has so far given loans of Rs. 660 million up to 1982-83 including Rs. 250 million for 1982-83.

Some Public Sector Undertakings

Hindustan Prefab. Factory Ltd., Jungpura, New Delhi 110014.

National Buildings Construction Corporation Ltd., 44, Ring Rd., Lajpat Nagar III, New Delhi 110024.

Housing & Urban Development Corporation Ltd., 12-A, Jamnagar House, New Delhi 110011.

(See also under "Commercial Firms"—Manufacturers and Services).

Expenditure Pattern of Various Income Groups

Annual Income Groups	Av. Income per household in Rs.	Total expenditure in Rs.	Expenditure, as % of income	Expenditure on food as % of total expenditure
Less than Rs. 2,500	1,996	2,190	109.7	72.2
Rs. 2,501-5,000	3,900	3,683	94.4	68.2
Rs. 5,001-7,500	6,288	5,302	84.3	62.9
Rs. 7,501-20,000	8,854-17,625	6,124-9,109	69.2-51.7	60.5-52.8
Rs. 20,000	22,303-48,656	10,335-14,620	46.3-30.0	48.3-46.6

LABOUR

THE seventh schedule of the Indian Constitution deals with the subject of labour and its various aspects which are the main concern of the Department of Labour. The implementation of the labour policy is mainly the responsibility of State governments though co-ordinated by the Union government, except in cases where labour is spread over in more than one State.

With industrial progress and growing awareness among workers of their rights and interests the Government has framed legislation to safeguard workers' interests, namely, health and welfare, minimum wages, bonus and social security measures. India also ratified the ILO convention No. 144 favouring tripartite consultations to promote international labour standard in 1979.

The working population formed 37.55 per cent of total population according to 1981 census.

Employment: According to the 1971 census 72 per cent of the working population was engaged in the primary sector, 11.1 per cent in the secondary sector and 16.7 per cent in the tertiary sector.

The occupational structure of the rural working population also revealed that 84.8 per cent were dependent on agriculture and allied activities, 6.6 per cent on mining, manufacturing and household industry and only 8.5 per cent in trade, commerce and other services.

In the urban sector 54.9 per cent were engaged in the tertiary sector and only 32.3 per cent found employment in the secondary sector.

According to 1981 census, out of the total working population of 247.1 million, 91.4 million were cultivators, 55.4 million agricultural labourers, 8.8 million belonged to household industry and 64.5 million related to various other spheres. There were about 27.1 million marginal workers.

Rural Workers: Nearly 80 per cent of the population of India and 83 per cent of the workforce live in the rural areas. The estimated workforce in the rural areas in 1978 was 216.16 million as against urban workforce of 44.76 million. The workforce in agriculture was 192.43 million. The remaining 23.73 million of the rural workforce was engaged in non-agricultural occupations. The rural workforce is expected to rise to 349.73 million by 1983.

Sex Break-up: The sex-wise break-up of the working population showed that 82.6 per cent of the total workers were male and 17.4 per cent female.

Age Break-up: 5.9 per cent of the total workers were children in the age group 0 to 14 whilst 7.8 per cent were over the age of 60. The social reality is that nearly 10.8 million children are labourers despite the law against child labour, whilst lack of old age security compels people to work beyond the retirement age.

Employment Exchanges: The total number of employment exchanges functioning in the country at the end of 1982 was 692 as against 663 at the end of 1981. These included 73 University Employment Information & Guidance Bureaux, 16 Professional & Executive Employment Offices, 7 Colliery Employment Exchanges, 10 Project Employment Exchanges, 22 Special Employment Exchanges for the Physically Handicapped and 1 Special Employment Exchange for Plantation Labour. In addition 211 Employment Information and Assistance Bureaux to cater to the needs of rural areas were also functioning in different Community Development Blocks.

The number of vacancies notified by employers was 837.7 thousand during 1980 against 878.7 thousand in the previous year.

Employment of Handicapped: Special employment offices for the physically handicapped are functioning at Bombay, Delhi, Madras, Hyderabad, Calcutta, Kanpur, Bangalore, Ahmedabad, Chandigarh, Ludhiana, Trivandrum, Patna, Jabalpur, Jaipur, Simla, Bhubaneshwar, Gauhati, Agartala, Rajkot, Surat, Baroda and Imphal. In addition Vocational Rehabilitation Centres are functioning, one each at Bombay, Hyderabad, Delhi, Kanpur, Jabalpur, Ludhiana, Calcutta, Madras, Trivandrum, Bangalore, Sitamarhi, Gauhati and Ahmedabad for vocational evaluation and imparting adjustment training to physically handicapped persons.

Apprentice Training Scheme: Under the Apprentice Act, 1961, it is obligatory on the part of employers in organised sectors to engage apprentices as per ratio fixed by Central Government. Persons possessing qualifications from 5th standard to 10th standard are

Labour situation in 1981 at a glance

Sr. No.	State/Union Territory	No. of Industrial disputes referred to I.R.M.	No. of failure reports received	Adjudication, Arbitration & Awards				Strikes & Lockouts (P)		
				No. of disputes referred for		No. of disputes for which awards are available		No. of strikes and lock-outs	No. of workers involved	No. of man-days lost
				Adjudication	Arbitration	In favour of workers	Against workers			
1	2	3	4	5	6	7	8	9	10	11
	CENTRAL SPHERE	6,340	1,612	973	4	..	..	472	439,600	2,603,273
1.	Andhra Pradesh	1,225	310	159	3	42	28	2	14,042	196,502
2.	Assam	942	106	106	..	10	14	9	8,396	13,016
3.	Bihar	..	..	..	..	..	..	88	35,571	1,356,564
4.	Gujarat	..	..	..	..	..	..	185	37,036	589,771
5.	Haryana	..	..	..	..	..	..	59	11,954	341,261
6.	Himachal Pradesh	..	..	..	..	..	..	1	55	770
7.	Jammu & Kashmir	..	..	..	..	..	..	4	1,975	5,529
8.	Karnataka (x)	1,359	456	1,398	..	502	337	17	102,178	2,393,865
9.	Kerala	..	..	..	..	..	..	31	12,324	450,428
10.	Madhya Pradesh	..	..	..	..	..	..	84	14,984	86,620
11.	Maharashtra	..	..	..	..	..	..	177	82,633	1,350,157
12.	Manipur	..	..	..	..	..	..	5	1,070	55,517
13.	Meghalaya	14	..	..	..	..	..	(—)	(—)	(—)
14.	Nagaland	(—)	(—)	(—)	(—)	(—)	(—)	(—)	(—)	(—)
15.	Orissa	..	..	..	..	..	..	11	5,863	202,611
16.	Punjab	..	..	..	..	..	..	49	16,973	75,382
17.	Rajasthan	1,248 (P)	905	457	11	(—)	8	97	34,049	699,879
18.	Sikkim	(—)	(—)	(—)	(—)	(—)	(—)	(—)	(—)	(—)
19.	Tamil Nadu	..	..	..	..	..	..	258	176,607	3,805,581
20.	Tripura	..	..	..	..	..	..	(—)	(—)	(—)
21.	Uttar Pradesh	..	..	..	..	..	..	123	47,994	620,727
22.	West Bengal	..	..	..	..	..	..	151	124,380	7,540,173
23.	Andaman and Nicobar	..	..	..	..	..	..	6	1,007	31,403
24.	Arunachal Pradesh	(—)	(—)	(—)	(—)	(—)	(—)	1	680	680
25.	Chandigarh	347	189	162	2	36	38	10	1,834	1,822
26.	Dadra & Nagar Haveli	(—)	(—)	(—)	(—)	(—)	(—)	(—)	(—)	(—)
27.	Delhi	5,672	2,381	1,578	1	241	91	19	4,506	28,931
28.	Goa, Daman & Diu	..	..	..	..	..	..	12	1,808	37,654
29.	Lakshadweep	..	..	..	..	..	..	..	..	..
30.	Mizoram	(—)	(—)	(—)	(—)	(—)	(—)	15	(—)	(—)
31.	Pondicherry	..	..	..	..	..	..	..	15,148	72,386
	Total	17,133	5,959	4,833	21	831	516	1,926	1,182,667	22,560,502

(x) Upto Nov. 1981.
Note: (—) Nil. (P) Provisional.

engaged as apprentices in 138 different designated trades in 217 industries. 122,610 trade apprentices were undergoing training as on April 30, 1982. Out of these roughly 40,334 belong to weaker section viz. Scheduled Castes, Scheduled Tribes, physically handicapped, minorities and women. Also 13,555 graduate and technician apprentices have been engaged.

Stipend: The present rate of stipend for various categories of apprentices is—Trade apprentices in the first year of their training get Rs. 230 per month, in the second year Rs. 260, in the third year Rs. 300 and in the fourth year Rs. 350. Engineering graduate apprentices get Rs. 450 per month, while sandwich course students having a degree get Rs. 320 per month and diploma-holders (for post institutional training) get Rs. 320 per month. Sandwich course students from Diploma Instt. get Rs. 250 per month.

Industrial Relations: The number of mandays lost due to strikes and bandhs in 1983 was 30,743 causing a loss of Rs. 7.91 million. The number of workers retrenched during 1983 was 485 in cotton textiles, 2,534 in engineering and 18.191 in all other industries.

Employment Situation: The employment in the Organised Sector increased from 22.879 million at the end of March, 1981 to 23.558 million at the end of March, 1982 registering a growth rate of 3.0% as against an increase of 2.6% during the preceding year 1980-81. An analysis of the employment data pertaining to different branches of the Public Sector revealed that all the branches of the Public Sector recorded an increase in employment during the year 1981-82. The highest growth rate was attained by the Central, Quasi Govt. establishments, being 9.7% followed by Local Bodies 2.4%, Central Govt. establishments and State Govt. establishments 1.7% each and State Quasi Govt. establishments 0.5%.

Employment in Private Sector: The employment in Private Sector increased by 2.9% during 1981-82 against a growth rate of 2.3% recorded in the preceding year 1980-81. In absolute terms, the employment increased from 7.395 million at the end of March, 1981 to 7.611 million at the end of March, 1982.

Employment in Public Sector: Employment in the Public Sector increased from 14.68 million at the end of March 1979 to 15.08 million at the end of March 1980 contributing a growth rate of 2.7 per cent during 1979-80 as against an increase of 3.4 per cent achieved during the previous year. An analysis of the different branches of the Public Sector showed that all the branches of Public Sector recorded an increase in employment during 1979-80. The highest rate of growth was in the State Quasi-Government establishments (7.0 per cent), State Government establishments (3.2 per cent), Central Quasi-Government establishments (2.3 per cent), local bodies (0.8 per cent) and Central Government establishments (1.4 per cent).

Employment in Public and Private Sectors

(Numbers in million)

As at the end of March	PUBLIC SECTOR						
	Central Govt.	State Govt.	Quasi Govt.	Local Bodies	Total	Private Sector	Grand Total
1962	2.186	3.087	0.879	1.365	7.417	5.160	12.577
1974	2.939	4.706	2.912	1.928	12.485	6.794	19.279
1975	2.988	4.748	3.192	1.940	12.868	6.803	19.671
1976	3.047	4.939	3.392	1.985	13.363	6.844	20.207
1977	3.082	5.130	3.675	1.989	13.876	6.867	20.744
1978	3.09	5.40	3.91	—	14.40	7.05	21.45
1979	3.13	5.31	4.17	2.06	14.68	7.21	21.88
1980	3.18	5.48	4.54	2.08	15.08	7.24	22.32
1981	3.19	5.75	4.58	1.99	15.48	7.39	22.88
1982	3.25	5.85	4.81	2.03	15.95	7.61	23.56

Employment in Public and Private Sectors,
(Based upon NIC-1970)

(as on 31st March)

(In '000)

Industry Division	Public Sector				Private Sector			
	1975	1980	1981	1982	1975	1980	1981	1982
Agriculture, Hunting, Forestry & Fishing	334	431	463	456	818	860	858	850
Mining & Quarrying	694	797	818	832	123	125	130	129
Manufacturing	1,019	1,446	6,902	1,592	4,111	4,417	4,545	4,725
Electricity, Gas and Water	508	661	683	699	39	34	35	36
Construction	956	1,068	1,083	1,112	127	73	72	71
Wholesale and Retail Trade and Restaurants and Hotels	53	110	117	113	309	274	277	278
Transport, Storage and Communications	2,364	2,651	2,709	2,781	79	71	60	60
Financing, Insurance, Real Estate and Business Services	511	691	748	815	169	206	196	204
Community, Social & Personal Services	6,444	7,224	7,355	7,547	1,032	1,167	1,222	1,258
TOTAL:-	12,883	15,078	15,484	15,948	6,808	7,227	7,395	7,611

Unemployment: The total number of work-seekers on the live register of Employment Exchanges showed a rise of 10.7 per cent from 17.838 million in December, 1981 to 19.753 million in December, 1982. The total number of placements effected during the year 1982 was 473,000 as against 504,000 during the corresponding period of previous year, showing a decline of 6.2 per cent.

Out of the educated job-seekers, 5.56 million were Matriculates. 2.44 million under-Graduates (including Intermediate and Higher Secondary) and 1.77 million were Graduates and above.

The number of job-seekers belonging to the Scheduled Castes and the Scheduled Tribes on the live register of Employment Exchanges at the end of December 1982 was 2.21 million and 0.60 million respectively as against 1.97 million and 0.55 million respectively in December 1981.

Women work-seekers on the live register at the end of December, 1982 were 3.14 million as against 2.73 million in December 1981. During the period January-December, 1982 the number of placements effected in respect of women job-seekers was 63,000 as against 63,600 during January-December, 1981.

Wages: The per capita annual earnings of workers drawing less than Rs. 1,000 per month in the manufacturing industries increased from Rs. 5,614 in 1977 to Rs. 5,797 in 1978. The average daily employment of such workers in 1978 was 3,620,000. The figures exclude those for Railway workshop and groups of industries of seasonal nature consisting of food, beverages, tobacco and gins and presses but includes installations.

Trade Unions (See chapter on Trade Unions).

Employees' State Insurance Corporation: The ESI Scheme covers 7.3 million persons for provision of social security benefits and extends medical care to 28.2 million people. An amount of Rs. 916.66 million was disbursed to insured persons towards cash benefits and Rs. 808.67 million was spent on provision of medical care during 1981-82. The Corporation has paid Rs. 998 million out of Rs. 1,539 million sanctioned on construction of ESI Hospitals, annexes with 17,017 and 798 beds respectively have been commissioned.

Labour Education & Training (See chapter on Education).

Employees' Provident Fund & Miscellaneous Provisions Act, 1952.

Under this Act three Schemes have been framed:

(i) The Employees' Provident Fund Scheme, 1952;
(ii) The Employees' Family Pension Scheme, 1971; and
(iii) The Employees' Deposit-linked Insurance Scheme, 1976.

The salient features, in brief of these three schemes, are as follows:

(1) *The Employees' Provident Fund Scheme, 1952:* The Act and the Scheme have been made applicable to 172 specified industries classes of establishments upto December 31, 1982. All factories/establishments engaged in one or more of these industries/classes of establishments and employing 20 or more persons and having completed the infancy period (viz., 3 years for establishments employing 50 or more persons and 5 years for those employing more than 20 but less than 50 persons) are covered under the Scheme. The statutory rate of Provident Fund Contribution—employers' and employees' share each is 8 per cent of pay (i.e. basic wages, dearness allowance including cash value of food concession, if any, and retaining allowance, if any) in respect of factories/establishments (including 5 part industries) engaged in 95 specified industries/classes of establishments and employing 50 or more persons and 6.25 per cent in respect of the other factories/establishments.

The qualifying period of service for membership of the Provident Fund is three months' continuous service or 60 days of actual work during a period of three months or less or on becoming permanent, whichever is earliest.

Membership: At the end of December, 1982 the number of subscribers was 12.40 million in respect of 137,961 covered establishments (both exempted and unexempted) and the total Provident Fund contributions collected was Rs. 87,706.3 million.

(2) *The Employees' Family Pension Scheme, 1971:* The Scheme came into force w.e.f. 1st March, 1971 and covers the employees enrolled as members of the Employees' Provident Funds Scheme, 1952, thereafter, the existing subscribers of the E.P.F. Scheme, 1952 as on 28.2.1971, were given the option to join this Scheme. As on December 31, 1982, there were 7.40 million members of the Family Pension Scheme. The rate of contribution is 1.6 per cent of the pay of the employees, diverted out of both employer's and employees' shares of contributions to the Provident Fund with an equal share contributed by the Central Govt. who also bears the total administrative expenses of this Scheme. As on December 31, 1982 a total amount of Rs. 4,640.3 million was received as contributions' (including Central Govt.'s share) in respect of this Scheme.

(3) *The Employees' Deposit-linked Insurance Scheme, 1976:* This Scheme, which came into force w.e.f. August 1, 1976, is applicable to all employees who are members of the Provident Fund, both in exempted or unexempted establishments. The Scheme provides for the payment to the nominees/heirs of a member in the event of his

Rehabilitation of Bonded Labourers (1982)

State	Number of bonded Labourers							Those to be rehabilitated	Funds released to State Govts. (Rs. in million)
	Identified & freed	Under other on-going schemes	Rehabilitated so far under the centrally sponsored Scheme						
			during 1978-79	during 1979-80	during 1980-81	during 1981-82	Total covered		
Andhra Pradesh	13,399	2,880	2,920	1,586	2,268	1,724	11,378	2,021	241,417.5
Bihar	4,958	952	816	369	1,876	602	4,615	343	90,300
Gujarat	42	42	—	—	—	—	42	—	—
Karnataka	62,699	39,960	527	1,521	13,436	5,080	60,524	2,175	886,175
Kerala	1,162	138	110	60	—	152	460	702	15,200
Madhya Pradesh	1,531	—	58	—	—	135	193	1,338	17,737.5
Orissa	7,096	—	321	16	517	6,045	6,899	197	906,250
Rajasthan	6,036	4,256	700	700	344	36	6,036	—	3,600
Tamil Nadu	27,874	27,311	—	—	359	100	27,770	104	10,000
Uttar Pradesh	8,753	1,368	495	2,606	500	3,784	8,753	—	382,400
Total	133,550	76,907	5,947	6,858	19,300	17,658	126,670	6,880	2,553,080

death, of an additional amount equal to the average balance in the Provident Fund account of the deceased member during the preceding three years, but not exceeding Rs. 10,000, provided that the average balance (after August 1, 1979) in the account of the deceased member is not less than Rs. 1,000 during the preceding three years or during the period of his membership, whichever is less. Employees covered under this Scheme are not required to make any contribution to get the benefit under this Scheme. The Scheme is financed by the employees of the covered establishments @ 0.5 per cent of the pay of the employees, who are members of the Provident Fund and the Central Govt. also contributes an amount representing one half of the employer's contribution. The cost of administration of this Scheme is borne both by the employers and the Central Govt. @ 0.1 per cent and @ 0.5 per cent (respectively) of the pay of the employees. The employers of the exempted establishments however pay inspection charges @ 0.01 per cent of the pay of the employees. As on December 31, 1982, a total amount of Rs. 1,618.4 million and Rs. 363.5 million was received as contributions and Administration Charges respectively in respect of this Scheme, which includes Central Govt.'s share also.

Bonded Labour: The powers for enforcement of the Bonded Labour System (Abolition) Act, 1976 rest with the State Governments. According to reports from State Governments the number of bonded labourers so far identified and released is 161,075 till December 31, 1983. The 32nd round of the National Sample Survey (April 1979) indicated the number around 340,000.

Employment Publications: The Directorate of Advertising and Visual Publicity of the Government of India began in April, 1976, to bring out *"Employment News"* in English and *"Rozgar Samachar"* in Hindi every week

TRADE UNIONS

COLLECTIVE bargaining is an essential institution in a democratic set-up, helping to maintain a steady balance on the industrial front. However, factory regulations and legislation were introduced in India not because of the demands by labour but at the behest of the British textile industry which wanted to reduce the hours of work of labour. Ironically, it was workers who protested at the reduction of work-hours for they felt it would entail reduced wages.

The earliest labour legislation points to The Factories Act, 1881, which substantiates the Indian Labour Commission Report of 1908. Since the first labour law concerned the textile industry in Bombay, the city can claim to be the birthplace of the labour movement in India. By 1892 workers became conscious of their rights and in the initial stages resorted to petitions.

After World War 1, in 1918 the strike weapon was brought into play as a bargaining power. But this method gained only partial support among the workers. Collective bargaining was still away. It was only in 1919 that the labour movement received official recognition when labour was granted a seat in the Legislative Council. The birth of ILO gave a further impetus to trade unionism in Bombay and the first trade union, the All-India Trade Union Congress (AITUC) was established in 1920 while the All-India Railwaymen's Federation came up in 1925. The Indian Trade Union Act of 1926 granted legal status to all trade unions.

With the emergence of AITUC on the labour scene the British Government saw a threat to its policies through organised labour and in 1929 a Royal Commission of Labour was appointed.

Between 1925 and 1959, there was a radical change in the attitude of Government towards industry and its workers. Consequently, the number of diverse trade unions jumped from 29 in 1927 to 9,000 in 1955. Today Government is the largest employer in the public sector.

World War II and the influence of ILO compelled Government to play an active role in regulating industrial labour disputes. In 1945 the office of the first Chief Labour Commissioner was created. From 8,095 registered trade unions in 1955-56 the number shot up to 24,547 in 1975-76.

Significantly 1960s saw a spurt in employers' union, a big rise from 198 unions in 1961-62 to 555 in 1975.

Listed below are a few of the important trade unions.

All-India Port and Dock Workers' Federation, *Headquarters:* 9, Second Line Beach, Madras-600001.

Established: By P. D'Mello and Sibanlal Saxena in the year 1948.

President's Office: P. D'Mello Bhawan, P. D'Mello Rd., Carnac Bunder, Bombay 400038.

Regional Office: Port Shramik Bhawan, 26, Dr. Sudhir Basu Road, Calcutta-700023.

Total Membership: 201,000.

Number of Affiliated Unions: 32.

Present Office-bearers:

President: S. R. Kulkarni; *Vice-Presidents:* M.G. Kotwal, M. K. Raghavan, K. A. Khan, Parbati Das, Dr. S. Maitra; *General Secretary:* S. C. C. Anthony Pillai.

All-India Trade Union Congress: 24, Canning Lane, New Delhi 110001.

Established: 31-10-1920.

Regional Offices: State committees in all the States and Union Territories.

Total Membership: 0.34 million.

Number of Affiliated Unions: 3,004.

Present Office-bearers:

President: S. A. Dange; *Vice-Presidents:* M. S. Krishnan, B. D. Joshi, Mohd. Elias, J. Chittaranjan, M.L.A., K. G. Sriwastava, Homi F. Daji, N. K. Krishnan, M. Kalyanasundaram, M.P., Chaturanan Misra; *General Secretary:* Indrajit Gupta, M.P.

Centre of Indian Trade Unions: 6, Talkatora Road, New Delhi 110001.

Established: 30-5-1970.

Regional Offices at Hyderabad (A.P.), Gauhati (Assam), Patna (Bihar), Ahmedabad (Gujarat), Rohtak (Haryana), Sundernagar (H.P.), Bangalore (Karnataka), Trivandrum (Kerala), Bhopal (M.P.), Bombay (Maharashtra), Imphal (Manipur), Bhubaneshwar (Orissa), Jullundur (Punjab), Jaipur (Rajasthan), Madras (T.N.), Agartala (Tripura), Lucknow (U.P.), and Calcutta (W. Bengal) and in the Union Territories of Delhi and Goa.

Total Membership: 0.33 million.

Number of Affiliated Unions: 4,214.

Present Office-bearers:

President: B. T. Ranadive; *Vice-Presidents:* Jyoti Basu, Mohammed Ismail, S. Y. Kolhatkar, Sudhin Kumar, K. Ramani, Manoranjan Roy, C. Kannan, Susheela Gopalan (M.P.), P. Ramamurti, N. Prasad Rao, Har Sahay Singh; *General Secretary:* Samar Mukherjee; *Treasurer:* E. Balanandan.

Official Publications: 'The Working Class' (English), 'CITU Mazdoor' (Hindi), 'Sramik Andolan' (Bengali), 'Karmik Lokam' (Telugu), 'Shramik Ekta' (Oriya), 'CITU Sandesham' (Malayalam), 'Warga Yudha' (Marathi), 'CITU Saithee' (Tamil)—all monthlies and 'Voice of Working Women' (Bi-monthly).

Hind Mazdoor Sabha: Nagindas Chambers, 167, P. D'Mello Rd., Bombay 400038.

Established: 1948.

Total Membership: 0.73 million.

Number of Affiliated Unions: 1,500.

Present Office-bearers:

President: S. R. Kulkarni: *General Secretary:* D. D. Vasisht.

Indian National Trade Union Congress: 1B, Maulana Azad Rd., New Delhi 110011.

Established: 3-5-1947.

Total Membership: 2.23 million.

Number of Affiliated Unions: 3,863.

Present Office-bearers:

President: N. K. Bhatt, M.P.; *General Secretary:* G. Ramanujam.

Official Publications: 'Indian Worker', Weekly.

Rashtriya Mill Mazdoor Sangh: Mazdoor Manzil, G. D. Ambekar Marg, Parel, Bombay 400012.

Established: By late G. D. Ambekar on 19-5-1940.

Total Membership: 130,000.

United Trades Union Congress: 249, Bepin Behari Ganguly St., Calcutta 700012.

Established: By late Mrinal Kanti Bose, late K. T. Shah and Jatin Chakravorty in the year 1949.

Regional Offices: 780, Ballimaran, Delhi 110011; 11, McLean Street, Madras 600001; 119/75, Darshanpurwa, Kanpur 208012; Plamood, P.B. No. 1019, Trivandrum; Jakkanpur New Area, Patna 800001; 5th Rd., Santa Cruz East, Bombay 400055.

Total Membership: 417,461.

Number of Affiliated Unions: 540.

FOREIGN AID TO INDIA

INDIA'S agrarian economy had needed a prop in the initial stages to balance the external payments gap arising out of necessary imports meant to establish modern industries and the infra-structural facilities for their smooth operation. Thus foreign aid played a crucial role in our development process as it helped build the much-needed foreign exchange reserve.

Government-to-government assistance has flowed in, in the form of grants, loans, credits, collaboration ventures as well as plain gifts. These have helped us tide over our initial difficulties.

There has, however, been a significant shift in this role of foreign aid since the sixties. It became more committed to programmes which do not need foreign exchange expenditure. It was the only immediate solution to the threat of a fall in foreign exchange reserve. Today, foreign aid is a prop for internal equilibrium of the economy and a substitute for domestic resources raising ventures, easing the pressure on the rupee resources even as it provides for the foreign exchange needs to meet urgent imports.

Foreign Exchange Reserves: 1960-61: Rs. 3,040 million; 1970-71. Rs. 7,320 million; 1971-72: Rs. 8,490 million; 1972-73: Rs. 8,470 million; 1975-76: Rs. 10,237.3 million; 1980-81: Rs. 38,375.9 million. External assistance during 1982-83: Rs. 22,274.8 million. Foreign debt as on July 31, 1982: Rs. 159,498.7 million.

AID-GIVING COUNTRIES

United States: The total amount of U.S. economic assistance to India up to September 30, 1982 was 12,402.6 million dollars or, at the current rate of exchange 124,026 million rupees.

The break-up of this figure is as follows:

Grants (not repayable) 3,753.8 million dollars; Loans repayable in dollars 4,255.4 million dollars; Loans repayable in dollars or rupees convertible into U.S. dollars and/or third country currencies at the option of U.S. Government 423.8 million dollars; Loans repayable in rupees 3,371.0 million dollars (including PL 480 Title I rupee loans to Government of India equivalent to 2,494.5 million dollars, and Cooley Fund loans to private enterprises equivalent to 220.3 million dollars); housing investment guarantee for HDFC 20 million dollars; and amounts reserved from all rupee sale proceeds under PL 480 Title I sales agreement for U.S. Government uses equivalent to 578.6 million dollars.

The various U.S. Government programmes under which the aid funds are disbursed and the amounts sanctioned for each programme up to September 30, 1982 are as follows:

Programme (up to 30-9-1982)	U.S. Dollars (Million)	Equiv. Rupees at Current Rate* (Million)
1. USAID Tech. Assistance Programme:		
(*a*) Development Grants (not repayable)	518.7	5.187.0
(*b*) Loans (repayable in rupees)	148.1	1,481.0
2. USAID Development Loans:		
(*a*) Repayable in Dollars	3,091.8	30,918.0
(*b*) Repayable in Rupees	502.3	5,023.0
3. Wheat Loan of 1951 (repayable in dollars)	243.7	2,437.0
4. P.L. 480, Title I Rupee Payable Sales (grants, and loans repayable in rupees)	4,076.8	40,768.0†
5. P.L. 480, Title I Credit Sales (repayable in dollars, or rupees convertible to U.S. dollars and/or third country currencies)	423.8	4,238.0
6. P.L. 480 Title I Credit Sales (repayable in dollars)	244.9	2,449.0
7. P.L. 480 Title II Food Aid Grants (Donations through Voluntary Agencies and U.N. World Food Programme) (not repayable)	2,438.2	24.382.0
8. Emergency Flood & Famine Relief Grants (not repayable)	5.5	55.0
9. Disaster Relief Grants (not repayable)	7.8	78.0
10. Triangular Trade (repayable in rupees)	5.8	58.0
11. Housing Investment Guarantee Programme:		
(*a*) Grant for Housing & Urban Dev. Corpn. (HUDCO)	0.2	2.0
(*b*) Guarantee for Housing Dev. Finance Corpn. (HDFC)	20.0	200.0
12. U.S. Export-Import Bank Loans (repayable in dollars)	675.0	6,750.0
Total	12,402.6	124,026.0

*Rate of Conversion: $1.00 = Rs. 9.00

†Actual amount of P.L. 480 sale proceeds deposited by the Government of India under all rupee payable sales agreements totalled Rs. 22,430.8 million. Of this, actual amount utilised for Cooley Loans to private enterprises totalled

Rs. 1,244.0 million; for loans and grants to Government of India Rs. 18,118.2 million; and for U.S. Government uses Rs. 3,068 million. While rupee loans to Government of India have been fully repaid (pursuant to the Indo-U.S. Rupee Agreement), some of the loans to private borrowers (Cooley Loans) are still outstanding.

Note: The Indo-U.S. Rupee Agreement signed on February 18, 1974 between the Government of India and the U.S. Government provided for the disposition of U.S. owned P.L. 480 Title I rupees held in deposit with banks and those prepaid by the Government of India under all outstanding loans repayable in rupees. Under the terms of the agreement, the U.S. Government additionally granted Rs. 16,804 million to the Government of India — roughly two-thirds of India's rupees debt to the U.S. — which have been used for financing various economic development projects during the first three years (1974 to 1977) of India's Fifth Five Year Plan. (Roughly Rs. 8,000 million, mostly, of non-P.L. 480 funds were retained for U.S. Government uses.)

FY 1982 Programme: During U.S. Fiscal Year 1982 (October 1, 1981 to September 30, 1982), the U.S. Government aid funds were committed for the following projects and activities under various programmes:

COMMITMENTS IN U.S. FISCAL YEAR 1982
(October 1, 1981 to September 30, 1982)

	Project/Activity	Amount Obligated (In Million U.S. Dollars)
1.	**Development Loans (a)**	
	Madhya Pradesh Social Forestry (b)	10.0
	Maharashtra Social Forestry (c)	25.0
	Maharashtra Irrigation Technology & Management (d)	44.0
2.	**Development Grants**	
	Maharashtra Social Forestry (c)	5.0
	Maharashtra Irrigation Technology & Management (d)	3 0
	Alternative Energy Resources Development (e)	5.0
	Integrated Rural Health and Population (f)	4.05
	Development & Management Training (g)	2.4
3.	**Total Development Assistance**	**98.45**
4.	**PL 480 Food Aid**	
	Title II Gift Commodities — through U.S. Voluntary Agencies (h)	156.6
	Title II Gift Commodities — through World Food Programme (h)	23.0
	Title II Gift Commodities — through the Cooperative League of U.S.A. (CLUSA) (i)	17.7
	Sub-Total:	**197.3 (j)**
5.	**Other Grants**	
	HIG Grant to HUDCO for Design and Analysis of Shelter Projects	0.1(k)
	Grant to the Cooperative League of U.S.A. (CLUSA) to provide support for its continuing programme development and backstopping activities for the strengthening of the Indian cooperative sector	0.1
6.	**Disaster Assistance**	
	Grant to voluntary agencies for emergency relief and rehabilitation operations during cyclone in Orissa	0.2
7.	**U.S. Export-Import Bank Loans (Net)**	26.4 (l)
	GRAND TOTAL:	**322.55**

(a) Loans are repayable in 40 years with 2 per cent interest during the first 10 years grace period, and 3 per cent thereafter.

(b) Finances the establishment of a Social Forestry Directorate in the State of Madhya Pradesh to assist the state and the villages therein in managing non-traditional forest lands, community and private lands for increasing the supply of fuelwood, fodder and mixed plantation. The project is expected to supply 25 per cent of the current annual firewood needs in 5,000 villages in addition to other products from these plantations, to be planted on approximately 63,450 hectares of marginal or degraded land adjacent to villages.

(c) Supports expansion and strengthening of a social forestry extension organisation and reforestation programme in the state of Maharashtra to assist approximately 4,300 village *panchayats* in 27 districts in managing the lands to increase the supply of firewood, fodder, timber and other forest products. Also finances establishment of an information and technical unit to assist the State horticulture and social forestry departments in extension efforts; and helps in creation of nursery production, and plantation management skills in village communities. The project is expected to result in approx. 81,000 hectares of mixed plantation adjacent to rural villages.

(d) Finances design and construction of approximately 13 new prototype medium irrigation sub-projects, to test and demonstrate innovations in design, and construction and operation of irrigation systems involving farmers/irrigators more actively. Grant will finance training and technical assistance as well as studies related to the project and a resident project coordinator. The project is intended to improve the efficiency of surface irrigation in the state of Maharashtra.

(e) Finances professional and technical services, equipment, materials, and travel for carrying out collaborative research projects which will expand India's technical capacity to exploit its alternative energy resources and to develop selected energy technologies to a stage of application.

(f) This grant finances the construction of additional sub-centres, primary health centres, rural centres and quarters for female workers, training of additional village level workers, *dais*, and sub-centre level workers, and expanded services and support system including base-line survey and needs assessment, communications, management information, etc. The project is expected to contribute to the Government of India's Model Plan for improved access to health and family planning services that promote fertility and mortality reduction in 13 districts of Maharashtra, Gujarat, Punjab, Haryana and Himachal Pradesh.

(g) Finances training of middle and junior level government officials and a limited number of executives and technicians from the private sector, to strengthen the managerial and technical capabilities of public and private sector manpower in different areas. Most of the training will be short-term and will be conducted in India and, where appropriate, in the U.S. and other countries. Approx. 1,300 individuals are expected to be trained under this project.

(h) Gifts of U.S. blended food commodities of greater nutritional value have been imported for free distribution through U.S. Voluntary Agencies working in India and the U.N. World Food Programme. These agencies assist Government and private institutions in their programmes of maternal/child health, school feeding, mid-day meals, food-for-work, and to support humanitarian/relief activities.

(i) Gift imports of U.S. vegetable oil have been provided to the Cooperative League of U.S.A. in support of its programme of assistance in developing India's cooperative vegetable oil sector. Under this programme, U.S. donated oil is sold to generate funds for development of oilseed production and

marketing system owned and controlled by farmers' cooperatives. The project which is being implemented by the National Dairy Development Board, is expected to contribute to ease the supply of edible oils in India.

(j) Includes estimated ocean freight.

(k) The HIG grant assists Housing & Urban Development Corporation (HUDCO), a public organisation, and its clients to improve the analysis, design and implementation of low cost housing projects through the use of computers, technical services and training.

(l) Represents net total during January-December 1981, However, Exim-bank authorised total credits of $53.6 million during 1981 for Diesel Elec. Switchgears ($14.5 million); Dry-Kiln Cement Plant ($9.7 million); Goods and Services for Oil Exploration ($23.4 million); and for various industrial manufacturers ($6.0 million).

U.S.S.R.: The total value of Soviet long-term economic credits to India exceeds 1,475 million roubles. This amount is being utilised for the construction of more than 75 industrial and other projects in India. Among these projects there are steel plants in Bhilai and Bokaro with the capacity of 4 million tonnes of steel per annum each, oil refinery in Mathura with the capacity of 6 million tonnes of crude oil per year, two oil refineries at Koyali and Barauni with a capacity of 3 million tonnes each, Heavy Machine Building Plant in Ranchi, Heavy Electrical Equipment Project in Hardwar, power stations etc.

On April 27, 1977, the USSR sanctioned new 250 million roubles credit to India. This credit is repayable over a period of 20 years, including 3 years grace period, and will be utilised for a wide range of new projects in steel, coal and other industries.

On March 14, 1979 the USSR and India signed Long-term Programme of Economic, Trade, Scientific and Technical co-operation between the two countries. The Programme is intended for the period of 10-15 years and envisages both; further development of co-operation in such traditional areas as ferrous and non-ferrous metallurgy, oil and coal industry, machine building etc., and establishing co-operation in new areas, such as light, food, pulp & paper, building materials, industries, irrigation etc. The Programme also provides for setting up of production co-operation and specialisation, co-operation in designing and construction of projects in third countries, development of trade, scientific and technical ties.

In conformity with the long-term programme an inter-governmental agreement on co-operation in construction of metallurgical plant at Visakhapatnam was signed on June 12, 1979, a feasibility report for the construction of alumina plant in Andhra Pradesh was prepared, a working programme of co-operation in oil industry for 1980-85 was signed, new projects of co-operation in coal industry were chalked out, some measures for the improvement of production capacity utilisation of machine-building plants set up in India with Soviet assistance were worked out, etc. Working Programmes of co-operation in a number of new areas and a Protocol on co-operation in Science and Technology were signed. New Trade Agreement has been prepared.

Switzerland: *(i) Multilateral Development Aid:* About 40 per cent of the Swiss technical assistance are channelled through the U.N. specialised agencies like UNDP, FAO, WHO, UNICEF, etc. A part of the relief and humanitarian assistance is channelled through the World Food Programme.

(ii) Bilateral Development Aid to India:

Mixed Credits: As of today, Swiss Government has extended mixed and transfer credits to the extent of Swiss francs 238.5 million as well as a development loan of Swiss francs 35 million for a rural electrification project in U.P. In 1978, the Swiss Government decided to convert into grants the part of these credits and loans which was still to be paid back, *i.e.* 76.4 million Swiss francs.

Financial Assistance Loans: By end-1980, a contribution of 40 million Swiss francs had been made to the Agricultural Refinance & Development Corporation for its Credit Programme in favour of small farmers.

Technical Assistance Grants: From 1961 until 31 December, 1981, the Swiss Government had sanctioned a total of about 90 million Swiss francs for technical assistance grants to India. In 1981, SFr 8.4 million were disbursed under this head.

Relief and Humanitarian Assistance: For 1981, the Swiss Government disbursed an amount of 3.5 million Swiss francs for various activities in India.

United Kingdom: British aid to India has been granted through the Aid India Consortium since its formation in 1958. From June 1975, all British aid to India is in the form of grants. Upto 1982-83 British aid to India amounted to £1,854 million.

Some Major British Aided Projects in India are: *Power Sector:* 1. Rihand Super Thermal Power Station; (2) CESC's Titagarh Power Project; (3) Bandel Power Project; (4) Kolaghat Power Project; (5) Nagarjunasagar Power Project; (6) Durgapur Power Project. *Coal Sector:* (1) Longowall Mining Projects at Seetalpur, Pathakhera Moonidih. Murullidih; (2) Opencast Mining Project at Jayant Mine, *Industrial Sector:* (1) Thal Fertiliser Plant; (2) Hazira Fertiliser Plant; (3) Foot and Mouth Disease Vaccine Plant; (4) Security Paper Mill. *Others:* (1) Fertiliser Education Projects in six States in India; (2) Orissa Family Welfare Project; (3) National Bank for Agriculture and Rural Development Projects; (4) HUDCO Projects.

Canada: The Canadian development assistance programme in India began in 1951 with grants of $10 million for food aid, $5 million for projects and equipment, and a small amount of technical equipment. Until the mid-60s the programme averaged around $25 million per year. Then, with the onset of the famine years, it grew rapidly to the $100 million level. From 1974-75 onwards, Canadian Aid focussed specially on food grains, edible oils, fertilisers and small agricultural projects etc., keeping in view the Indian Govt.'s priority areas of development. In 1981-82 Canada expanded the programme into the energy and mining sectors and made new commitments totalling $154 million in development aid.

Commitments by Canada through the development assistance programme in India totalled $1,722.3 million as at the end (March 31) of fiscal year 1982-83. To this may be added export credits of $120 million, bringing the total programme of assistance to $1,842.3 million. Of the development assistance programme, which is administered by the Canadian International Development Agency, 60 per cent of commitments have been in the form of grants, and 40 per cent development loans (50-year maturity, 10-year grace period, with no interest or service charges). The export credits, administered by Canada's Export Development Corporation, have been on concessional terms varying with conditions at the time the credits were given.

India has become self-sufficient in foodgrains as is evident in the last few years, although agriculture remains a high priority sector for the Government of India. Canadian development assistance in India in future will concentrate on agriculture, energy and human resource development.

Among the major activities at present are lines of credit in the oil and natural gas sector, the power sector and the mining sector, as well as phase II of the Idukki hydro power station in Kerala, assistance to ICAR in dryland farming research, the provision of grants for edible oil and loans for agricultural refinancing.

In addition to the above there is an active and growing programme of activities by Canadian non-governmental organisations (NGOs) in India.

Canada has been the sixth largest bilateral donor to India, in 1981-82 in terms of net aid transfers to India during that year.

Some of the major projects which have received Canadian aid are: Idukki Hydro-electric Project (Kerala); Kundah Hydro-electric Project (Tamil Nadu); Synthetic Rubber Plant (Koyali, near Vadodara); bulk fertiliser handling equipment for the ports of Kandla and Calcutta; Earth Satellite Communications Station at Dehra Dun; Mining Exploration equipment for Geological Survey of India; Airport Navigation and Lighting Equipment for Delhi, Madras, Bombay and Calcutta.

Current Canadian financed projects are: $45 million Oil and Natural Gas sector loan—a line of credit for the procurement of equipment and services by the Oil and Natural Gas Commission and Oil India Ltd., $50 million loan to the National Bank for Agriculture and Rural Development (NABARD) for the provision of agricultural credit to the rural farmers in India; $4 million grant for the All India Coordinated Research Project for Dryland Farming in Hyderabad; $20 million loan for procurement of equipment and services by the mining sector; $30 million loan for procurement of equipment and services by the Power Sector and $88.7 million grant for the provision of Canola/rapeseed oil to the National Dairy Development Board.

New projects are in the planning stages in hydro-electric power, agriculture, provision of rapeseed oil as well as social forestry

Canadian Assistance to India During 1981-82 and 1982-83 Disbursed in Canadian Million $

	1981-1982	1982-1983	Cumulative total upto March 1983
Grants			
Food	9.0	10.0	619.5
Fertilisers	-	-	-
Industrial commodities	-	-	0.4
Projects and equipment	0.9	3.2	153.2
TOTAL GRANTS ...	9.9	13.2	773.1
Loans			
Food	-	-	32.8
Fertilisers	-	-	176.4
Industrial commodities	-	-	336.4
Projects & equipment	34.1	41.0	403.7
TOTAL LOANS	34.1	41.0	949.3
Total Development Assistance Programme	44.0	54.2	1,722.4
Export Credits	-	-	120.0
TOTAL ASSISTANCE			1,842.4

Australia: Australian Development Assistance to India started in 1951. In the early years, assistance was in the form of commodities (wheat, flour, fertilisers, copper, milk powder and wool) and equipment (rail cars, rail wagons, trucks and radio equipment). Since the late 1960s however, Australia has tended to concentrate its aid in the agricultural field through bilateral projects.

Between 1951-61, wheat, electrolytic copper, sulphate of ammonia fertilisers, skimmed milk powder etc. were provided to meet shortages in India.

Food Aid: In response to food shortages in India, Australia made large gift shipments of food in 1965, 1966 and 1967. Following the series of successful harvests from 1967 to 1971, India announced termination of food grain imports on concessional terms from January 1972. However, due to increased cost of fuel and fertilisers and electricity shortages, etc., India sought further external supplies of food grains. In response Australia provided wheat to India as food aid during the period 1974-77. The value of wheat supplied in 1975-76 was approximately $A 7,500,000 and in 1976-77 $A 6,000,000.

Value of assistance received by India since the inception of the Development Assistance Programme to June 1982 (including Food Aid, Project Aid, and Training Aid) amounted to $A128 million.

Projects completed are: *(i) Bakeries Project*—1966-76 $A2.7 million; *(ii) Dairy Cattle*—1966-73 $A882,000, *(iii) Centrally Sponsored Exotic Cattle Breeding Farms*—1976-80 $A442,000; *(iv) Indo-Australian Cattle Breeding Project, Barapetta (Assam)*—1974-80 $A1.3 million; *(v) Indo-Australian Sheep Breeding Project, Hissar, Haryana*—1969-81 $A7.3 million; *(vi) Indo-Australian Apple Grading/Storage Project, Sopore, Jammu & Kashmir*—1978-82 $A 931,000; *(vii) Development Import Grants*—During 1978-79 Australia provided a grant of $A1.6 million for the import of developmental goods and services from Australia. The grant was utilised by the Government of India for the import of pig led and *(viii) Drought Relief-Water Drilling Equipment*—Australia has provided two truck mounted DTH rigs, accessories and spare parts valued at $A871,000 for use in the drought affected areas of Rajasthan.

The major Projects currently receiving Australian Assistance are: *(i) Indo-Australian Cattle Breeding Project, Hissar (Haryana):* Phase I of the Project (commenced on July 1974) concluded in July 1980 with an Australian contribution of $A 2.15 million. Australian expenditure during Phase II is currently estimated at $A 1.6 million.

(ii) Indo-Australian Fodder Seed Farm Project, Hessaraghatta (Karnataka): The $A 1.6 million project which commenced in August 1979 is to be completed in two years.

(iii) Indo-Australian Abattoir Project, Andul-Mourigram (West Bengal): The $A 2.2 million project which commenced in December 1982 is expected to be completed by the end of 1985.

(iv) Establishment of Plant Quarantine Facilities: Australia is providing equipment, expertise and training fellowships in the establishment of a Post Entry Plant Quarantine Station at Faridabad (near Delhi) at an estimated cost of $A 210,000.

(v) Indo-Australian Apple Technology Extension Project: The aim of this project is to assist the development of Kashmir's apple industry. At an estimated cost of $A 1.2 million Australia has to provide specialised equipment, vehicles, and advisory staff. The project is expected to be completed within four years.

Projects under consideration are: (i) Expansion of Frozen Semen Centres to assist in Assam's Cattle Industry; (ii) Assistance with Forestry Development; and (iii) Assistance with expertise in the Reclamation/Development of Arid Areas.

Australian Development Training Programme:

India has been participating in the training programme since 1946. Approximately 60 Indian personnel participate in the training courses offered under this Programme each year.

The Australian Development Assistance Courses (ADAC's) cover such fields as development economics, agricultural studies and community health.

Australia also arranges to conduct Special Training Courses to meet the specific needs of the developing countries. A Special Group Course was conducted in Sheep Husbandry and Dry Land Development during the years 1981 and 1982 for Indian officials actively engaged in managing Sheep Breeding Farms and Dry Land Development Projects.

West Germany: Aid to India for the financial year 1983-84 is envisaged to the tune of Rs. 1,350 million (DM 337 million). The break-up of the aid is as follows: Capital goods assistance (DM 47.5 million), General Commodity assistance (DM 53 million), Promotion of Indian development banks: IFCI (DM 20 million), ICICI (DM 20 million), NABARD (DM 55 million).

Under the project assistance of Rs. 780 million (DM 196.5 million) the following amounts have been earmarked; DM 65 million for Neyveli Lignite Corporation; DM 27.5 million for Super Thermal Power Plants at Korba and Ramagundam; DM 15 million for minor irrigation projects in Rajasthan; DM 20 million for schemes designed to meet the needs of economically weaker sections by HUDC and DM 14 million for other projects mutually agreed upon.

The technical assistance worth Rs. 130 million (DM 34.4 million) is made available for transfer of technology in different sectors of the Indian economy and covers areas like watershed management, technical training, pollution control and post harvest technology.

In addition to the allocations referred above an amount of Rs. 10 million (DM 2.72 million) has been offered to give scholarships to Indian candidates.

Overall German aid commitments to India since development assistance was taken up in the fifties amount to more than Rs. 32,000 million (DM 8 billion).

Netherlands: In 1983 an amount of Dfl 190 million (Rs. 540 million) has been made available to India. Of this amount, Dfl 96 million consisted of a loan on DAC conditions while Dfl 85 million was given as a grant and Dfl. 9 million (grant) was allocated for technical assistance. It is foreseen, however, that the level of disbursements in 1983 will be over Dfl. 200 million, due to commitments of former years.

Belgium: Belgium joined the Aid India Consortium in 1962 and upto 1982-83, it has extended State to State loan amounting to BF 4,410 million (1 BF —Re. 0.25) to India. The loan last granted for 1982-83 was of BF 350 million, inclusive of Debt Relief of BF 60 million

The terms and conditions of the loans have been liberalised progressively; at present the loan is available to India free of interest, with a repayment period of 30 years including an initial grace period of 10 years. Belgium has also extended to India suppliers' credit of more than BF 4,000 million to cover big purchases like ships.

Denmark: India has signed a loan agreement with Denmark in 1981 for a loan of Rs. 170 million (Danish Kroner 150 million), This amount will be utilised for the import of many items needed for the fertiliser industry and for the delivery of an incineration plant in New Delhi.

Besides technical co-operation is also rendered in various fields, such as animal husbandry, rural development, family welfare, preventive health, drinking water supply and small-scale industrial development. For the period 1979-82, a total of Rs. 430 million (Danish Kroner 380 million) has been disbursed as grants for technical assistance to India. For the period 1983-86, a total of Rs. 645 million (Danish Kroner 575 million) has been appropriated by the Danish Government as grants to support the implementation of development projects in the above-mentioned fields.

Japan: During the fiscal year 1981-82, Japan has agreed to pay an amount of 28,000 million yen as project loan at an interest rate of 2.75 per cent, and 30 years repayment period including 10 years grace period.

The projects for yen credit comprise Lower Mettur hydro-electric project, Hirakud hydro-electric project, and Thal Vaishet fertiliser project.

Japan has also agreed to extend an amount of 2,984 million yen as grant aid during the same fiscal year. The grant aid consists of social environment improvement (for purchase of small steel bars for construction of lower income group houses and hospitals etc.), debt relief, the project for encephalitis vaccine production, and supply of gymnastic and sports equipments

During the fiscal year 1982-83, Japan has agreed to extend an amount of 33,000 million yen as project loan at the above-mentioned condition.

The projects for yen credit comprise of the Anpara 'B' Thermal Power Station construction project, Oil and Natural Gas Commission off-shore supply vessel project, Calcutta Metro-Railways (Phase II) construction project, and Tamil Nadu State micro power stations construction project.

Japan has also agreed to extend an amount of 3,680 million yen as grant aid during the same fiscal year. The grant aids take care of debt relief, social environment improvement, and supply of audio-visual and photographic equipments.

As technical cooperation in 1982, Japanese Encephalitis Vaccine Production Project was started in 1982 as four year project to produce vaccine for two million people a year at the final stage, Remote Sensing Multi-Colour Data System was supplied to All India Soil and Land Use Survey, and Japan has accepted 48 trainees each in 1981 and 1982 from India to the Japan International Cooperation Agencies' courses.

Norway: Norway's bilateral technical assistance, by way of grants, to India for the four-year period beginning 1983 at a level of N. Krs. 140 million (Rs. 195 million) each year—totalling N. Krs. 560 million (Rs. 780 million).

Norwegian assistance will be utilised for the development of fisheries, family planning, science and technology and import of commodities like fertiliser and paper.

Sweden: Development Co-operation agreements providing Swedish aid—for fiscal year 1983-84 a total of SKr 340 million (about Rs. 550 million)—have existed and been renewed, usually on a biennial basis, since the mid-1960's. The entire assistance committed so far has been in the form of an outright grant.

The key portion of present development cooperation is projects/programmes for underserved rural areas in the fields of social forestry, primary health care and provision of potable water. For these purposes an increasing share of assistance funds, at present SKr 120 million per year, is set aside.

There is also a provision for general imports (SKr 95 million) and for imports to India of goods and services from Sweden (SKr 125 million), where out of the latter a substantial part is kept for energy projects.

France: France has granted India aid amounting to French Francs 6.080 million. French assistance has been permitted for the establishment of the following projects, viz. the Haldia refinery, Nasik thermal station, Khetri copper mines, caprolactum and polyethylene factories at Vadodara, fertiliser factory at Haldia, Kalpakkam reactor and two heavy water factories.

In 1982, India received French Francs 1.445 million as project credits and French Francs 90 million as non project credits. These credits include: (1) a loan of FF 870 million for the telecommunication project of Gonda (UP); (2) a loan of FF 445 million for various other projects mutually agreed upon.

The terms and conditions of these credits are: (a) 28 years repayment including 10 years grace period and 3 per cent interest for half of the loan; (b) Export credit of ten years duration for the other half.

IMPORT AND EXPORT TRADE

IMPORT and export trade patterns in India have undergone radical changes since independence. With the progress in industrial development she is no longer the mere exporter of basic raw materials. Exports cover a diversified spectrum of primary commodities and finished products, namely, jute manufactures, cotton fabrics, handicrafts, engineering goods, leather and leather manufactures, chemicals and allied products, etc. The markets abroad have expanded and spread to all parts of the globe, including the industrially-advanced countries.

Imports have also increased. Today we import scarce raw materials like oil and sophisticated machines which are the basic requirements for the infrastructure of our galloping industries.

The Government's export-import policy envisages a major role for large concerns as well as small entrepreneurs and hence provisions have been made for better incentives to small manufacturers through grant of loans, technological know-how, creation of exclusive export-oriented free trade zones, liberalisation of rules for the release of foreign exchange, tax holidays, incentives for foreign collaborations and joint ventures, etc. Stress is being laid on cost efficiency combined with maximum output to provide optimum benefits to the domestic economy. Recently an inter ministerial body called the Falta Export Processing Zone board has been set up.

During 1982-83, India's exports recorded a rise of 13 per cent to Rs. 88,140 million from Rs. 78,030 million in 1981-82. Imports increased by 5.4 per cent to Rs. 143,557.06 million in 1982-83 from Rs. 136,075.6 million in 1981-82. Consequently, India's trade deficit shrunk although negligibly to Rs. 54,470 million during 1982-83 from Rs. 58,680 million during 1981-82.

Trend in Exports

The growth in India's exports slackened during the recent years compared to that during the mid-seventies. India's exports rose by 27.2 per cent during 1976-77, by 5 per cent during 1977-78, by 6 per cent during 1978-79, by 12.8 per cent during 1979-80, by 3.9 per cent during 1980-81 and by 13.6 per cent during 1981-82. The composition of exports is presented in Table II.

Trend in Imports

India's import bill soared during 1980-81 and 1981-82. Though imports declined by 3.6 per cent in 1976-77, they rose by 18.7 per cent in 1977-78. Thereafter, again it climbed up by 13.1 per cent in 1978-79, 30.7 per cent in 1979-80, 40.6 per cent in 1980-81, 9.2 per cent in 1981-82 and 4.3 per cent during 1982-83. The detailed composition of imports is presented in Table III.

Regional Pattern of India's Foreign Trade

Table IV shows the regional pattern of our external trade. The U.S., Japan, the U.S.S.R., the U.K. and West Germany were our top five exporters and the U.S., West Germany, the U.K., the U.S.S.R. and Japan were the top five importers.

Table I: India's Foreign Trade and Foreign Exchange Reserves

(Rs. Million)

	Exports	Imports	Balance
1976-77	51,640 (27.2)	50,740 (−3.6)	+72
1977-78	54,040 (5.0)	60,250 (18.7)	− 6,210
1978-79	57,260 (6.0)	68,140 (13.1)	−10,880
1979-80	64,590 (12.8)	89,080 (30.7)	−24,490
1980-81	67,110 (3.9)	125,240 (40.6)	−58,130
1981-82	78,030 (13.6)	136,710 (9.2)	−58,680

Santa Cruz Electronics Export Processing Zone, Andheri East, Bombay 400096. It is a free trade zone created by the Ministry of Commerce, Govt. of India on Sept. 1, 1974 to encourage establishment of electronics industry for 100 per cent export, and to earn foreign exchange.

The Zone covers an area of 40.47 hectares and it can accommodate about 100 units. As on 31st March, 1983 the number of approved units amounted to 71 of which 45 are in operation. The total exports made from zone since its inception in September, 1974, till 31st March, 1983 were of the order of Rs. 1,279.3 million. The exports for the year 1982-83 were of the order of Rs.543.8 million.

SEEPZ Administration renders all assistance to entrepreneurs for setting up facilities in the Zone, after they are approved for setting up a project in the Zone by the SEEPZ Board. The clearances are given at a single point. Since the operations in SEEPZ are all for 100% export purposes there are certain relaxations in the application of local laws such as custom MRTP and FERA.

The SEEPZ units enjoy a five year tax holiday. A SEEPZ unit may also be permitted, subject to certain conditions to sell a part of its output in the local market on payment of appropriate duties.

Export Inspection Council of India, Pragati Tower, 26, Rajendra Place, New Delhi.

Estd. by the Govt. of India to advise the Govt. regarding the measures for enforcement of quality control and pre-shipment inspection in relation to the commodities intended for export and to draw up programmes with the object of improving the quality of export products and projecting a better image of India abroad. The Export Inspection Agencies at Bombay, Calcutta, Cochin, Delhi and Madras functioning under the administrative and technical control of the Export Inspection Council, have a total network of 58 offices throughout India.

EXPORT PROMOTION COUNCILS

Apparels Export Promotion Council: Textile Centre, Poona St., 34, P. D'Mello Road, Bombay 400009; Sahyog Bldg., 4th Floor, 58, Nehru Place, New Delhi 110019.

Basic Chemicals, Pharmaceuticals and Cosmetics Export Promotion Council: Jhansi Castle, 4th Floor, 7, Cooperage Road, Bombay 400039. Gram: "Chemexcil". Telex: 011-4047. *Regional Offices:* *(i)*No. 23/1&2, 6th Main Road, 3rd Cross, Gandhinagar, Bangalore 560009; *(ii)* Kankaria Estate, 9th floor, 6, Little Russell St., Calcutta 700071.

Cashew Export Promotion Council: Chittoor Road, Ernakulam, Cochin 682016.

Chemicals and Allied Products Export Promotion Council: 14/1B, Ezra St., Calcutta 700001. Gram: "Capexil". *Branch Offices:* *(i)* Commerce Centre, Block D-17, Tardeo Rd., Bombay 400034; *(ii)* Rasheed Mansion, 622, Anna Road, Madras 600006; *(iii)* Laxmi Niwas, 8, S. Bhagat Singh Marg, New Delhi 110001.

Overseas Correspondents: *(i)* C.P. Gonnetilleke, 115, Davidson St., Colombo 4, Sri Lanka; *(ii)* M.K. Unnithan, 31, Unakan Road, Post Box 975, Bangkok, Thailand; *(iii)* Dolly Enterprises, Post Box No. 6061, 3-C, Hyde Centre 221-226, Gloucester Road, Hong Kong.

Cotton Textiles Export Promotion Council: Engineering Centre, Mathew Road, Bombay 400004; Gram: "Texprocil". Telex: 011/2166. *Branch Offices:* *(i)* Cecil Court, Mahakavi Bhushan Marg, Bombay 400039; *(ii)* Jaldarshan Housing Society, Opp. Nataraj Cinema, Ashram Road, Ahmedabad 380009; *(iii)* 14/1B, Ezra St., Calcutta 700001; *(iv)* 101, Ashoka Estate, 24, Barakhamba Road, New Delhi 110001; *(v)* 166, Thambu Chetty St., Madras 600001; *(vi)* World Trade Centre, 3rd Floor, M.G. Rd., Cochin 682016.

Overseas Office: T.J. Jacob, India House, Wilhelm Leuschner Str. 93, 6, Frankfurt/Main, West Germany.

Engineering Export Promotion Council: World Trade Centre (3rd Floor), 14/1B, Ezra Street, Calcutta 700001. Telex: 021-7837; Gram: "Oceanborne". *Territorial Division:* Vandhna (4th Floor), 11, Tolstoy Marg, New Delhi 110001. *Regional Offices:* (*i*) Commerce Centre, 2nd Floor, Tardeo Rd., Bombay 400034; (*ii*) World Trade Centre, 1st Floor, 14/1B, Ezra St., Calcutta 700001; (*iii*) Kannammai Building, 1st Floor, 612, Mount Rd., Madras 600006; (*iv*) Surya Kiran, 4th Floor, 19, Kasturba Gandhi Marg, New Delhi 110001.

Foreign Offices: (i) Imm. Los Harmonies, Blvd. Carde, 01 B.P.V.292, Abidjan-01, Ivory Coast; (ii) 333 North Michigan Ave., Chicago, Illinois 60601 (U.S.A.); (iii) P.O. Box No. 6591, Dubai (U.A.E.); (iv) Indische Technische, Handelsberatung, 4 Dusseldorf, Immermaunstr-59, West Germany; (v) Skyline Building (4th Floor), No. 9, JL M. H. Thamrin, Jakarta, Indonesia; (vi) 28/30 Cork Street, London W-1; (vii) 727 West 7th Street, Suite 658, Los Angeles, C.A. 90017; (viii) Rm. 502, Sarmiento Bldg., Ayala Ave, Makati, Metro Manila, Philippines; (ix) Room No. 104, St. George House, Parliament Road, P.O. Box No. 42030, Nairobi (Kenya); (x) 230 Orchard Road, 07-232A, Faber House, Singapore-0923, Republic of Singapore; (xi) Suite No. 902 (9th Floor), AWA Building, 47 York Street, Sydney-2000, N.S.W. Australia; (xii) 2 Bloor Street East, Suite 3140, Toronto, Ontario M4W 1A8, Canada; (xiii) Krugerstrasse 10/1/2/6, 1010 Vienna, Austria.

Export Promotion Council for Finished Leather and Leather Manufactures: 15/46, Civil Lines, P.B. No. 198, Kanpur 208001; Telex: 325-206 KEPC IN TF-62464, 62785; Gram: "Lexport".

Table II: India's Principal Exports

(Rs. million)

	1979-80	1980-81	1981-82*
Jute manufactures	3,361	3,300	2,501
Tea	3,678	4,255	3,733
Cotton fabrics	2,874	2,765	2,725
Iron ore	2,852	3,033	3,434
Coir yarn manufactures	366	262	258
Oil cakes	1,275	1,251	1,394
Leather & leather manufactures (except footwear)	4,856	3,371	3,741
Cashew kernels	1,181	1,401	1,688
Tobacco	1,135	1,407	2,278
Engineering goods	7,391	7,270	8,173
Coffee	1,633	2,142	1,325
Sugar	1,289	406	403
Manganese ore	132	127	90
Raw cotton	751	1,649	350
Iron and steel	1,052	823	701
Chemicals & allied products	1,978	2,256	3,473
Fish & fish preparations	2,534	2,129	2,744
Art silk fabrics	324	215	265
Footwear	339	401	404
Vegetable oils	495	220	233
Cotton apparels	3,437	3,782	5,479
Handicrafts	8,325	8,938	10,338
Mica	206	177	279
Total	64,184	67,107	77,962(a)

*Provisional.

(a) Revised to Rs. 7,797 million for supplementary data revised up to October, 1982.

Regional Offices: *(i)* 202, "Niranjan", 2nd Floor, 99, Subhash Rd., Bombay 400002; Gram: "Reolexport"; *(ii)* 27, Mirza Ghalib St., 5th Floor, Calcutta 700016; Gram: "Reolexport"; *(iii)* 31, Rundals Rd., Madras 600007; Gram: "Filexport".

Gem & Jewellery Export Promotion Council: D-15, Commerce Centre, Tardeo Rd., Bombay 400034. Telex: GJEC 011-4360; Cable: "Gejexcon".

Handloom Export Promotion Council: Rasheed Mansion, 622, Anna Salai, Post Bag 461, Madras 600006. Telex: Ms-7158; Gram: "Gossamer".

Indian Silk Export Promotion Council: 62, Mittal Chambers, Nariman Point, Bombay 400021.

Leather Export Promotion Council: Marble Hall, 118, Vepery High Rd., Madras 600003; Tel.: "Lexprocil"; Telex: 41-7354—LEPC-IN.

Table III: India's Principal Imports

(Rs. million)

	1979-80	1980-81	1981-82*
Cereals and cereal preparation	1,058	1,004	2,644
Cashew units (unprocessed)	116	87	191
Fibres	1,561	1,642	N.A.
Petroleum and lubricants	33,329	52,635	51,893
Animal and vegetable oils and fats	4,554	7,088	N.A.
Fertiliser and fertiliser materials	5,155	8,178	5,480
Chemical elements and compounds	3,236	3,582	3,878
Dyeing, tanning and colouring materials	255	208	180
Medicinal and pharmaceutical products	739	846	715
Plastic materials, regenerated cellulose and artificial resins	974	1,214	1,061
Paper, paper board and manufactures	1,588	1,865	2,403
Non-metallic mineral manufactures	4,423	5,552	4,602
Iron and steel	8,686	8,524	11,364
Non-ferrous metals	3,534	4,774	3,016
Manufactures of metals	757	895	915
Non-electrical machinery, apparatus and appliances	8,069	11,153	11,822
Electrical machinery, apparatus and appliances	2,373	2,335	2,140
Transport equipment	3,386	4,720	2,581
Total (including others)	91,426	125,239	135,887(a)

*Provisional — N.A. Not available

(a) Revised to Rs. 1,36,382 million for supplementary data received upto October 1982.

Marine Products Export Development Authority: (Ministry of Commerce, Govt. of India) M. Gandhi Rd., P.B.1708, Cochin 682016; Tel.: "Marine"; Telex: (0885) 288.

The Plastics and Linoleums Export Promotion Council: 612/615, Tulsiani Chambers, Free Press Marg, Nariman Point, Bombay 400021; Cable: Plexconcil, Bombay 400023. *Regional Offices:* (i) Rasheed Mansion, 622, Mount Road, Madras 600006; (ii) World Trade Centre, 14/1B, Ezra Street, Calcutta 700001.

Processed Foods Export Promotion Council: 105, New Delhi House, 27, Barakhamba Rd., New Delhi 110001. Tel.: "Profoodcil".

Shellac Export Promotion Council: 14/1B, Ezra St., Calcutta 700001; *Deals in:* Seedlac, Shellac and Lac manufactures.

Table IV: Regional Pattern of India's Foreign Trade

(Rs. million)

Countries	1979-80		1980-81		1981-82*	
	Exports	Imports	Exports	Imports	Exports	Imports
1. U.S.A.	8169.9	9260.7	7433.4	15186.1	8815.9	14213.4
2. Canada	625.5	2264.8	623.4	3323.4	648.7	2938.2
3. E.C.M.	**17514.1**	**21767.2**	**14225.7**	**25488.0**	**15304.6**	**30198.5**
of which						
i) Belgium	1668.5	2636.9	1444.8	2958.6	1639.5	5132.7
ii) France	1973.2	2077.5	1469.4	2803.0	1494.7	2468.8
iii) F.R.G.	3801.0	6445.5	3847.5	6937.7	3816.9	9169.4
iv) Netherlands	2204.6	1451.9	1520.4	2145.0	1512.8	2464.1
v) U.K.	5160.5	7088.1	3948.8	7309.9	4635.8	8488.7
4. E.S.C.A.P.	**15024.0**	**13669.7**	**14053.4**	**21030.0**	**15571.7**	**23714.8**
of which						
i) Australia	1020.0	1628.4	916.2	1700.8	1063.2	2241.6
ii) Japan	6462.6	6094.0	5978.1	7487.8	6905.6	9393.5
5. O.P.E.C.	**7169.5**	**24096.3**	**7612.5**	**35292.5**	**9270.2**	**38826.2**
of which						
i) Iran	961.1	6206.9	1232.3	13389.0	1108.7	13280.5
ii) Iraq	614.8	9172.7	519.8	7525.2	808.7	4239.1
iii) Kuwait	1238.1	1655.1	970.7	3376.2	1288.5	2678.4
6. East European countries	**8448.7**	**11024.0**	**14863.3**	**12962.8**	**17829.1**	**15248.5**
of which						
i) Poland	442.9	606.8	689.7	344.1	448.3	384.6
ii) Czechoslovakia	425.9	516.8	553.0	390.1	856.7	509.2
iii) G.D.R.	479.6	345.1	488.9	442.7	391.4	455.8
iv) Rumania	454.7	882.5	583.9	972.0	799.3	1110.5
v) U.S.S.R.	6382.3	8243.3	12262.9	10137.1	15048.9	11563.6
7. Others	7636.0	9343.1	8295.4	11956.3	10521.6	10747.5
Grand Total	**64587.7**	**91425.8**	**67107.1**	**125239.1**	**77961.8**	**135887.1**

*Provisional

Silk and Rayon Textiles Export Promotion Council: Resham Bhavan, 78, Veer Nariman Rd., Bombay 400020; Cable: "Silkrayon"; Telex: 011/3703; *Branch Offices:* (*i*) Resham Bhavan, Plot No. 3D/E, Lal Darwaza, Surat 395001; (*ii*) 3A, Diwan C., Mehra Rd., Amritsar 143001; (*iii*) Mai Harkishan Kaur Sarai, Civil Lines, Ludhiana 141001.

Spices Export Promotion Council: M.G. Road, Ernakulam, Cochin 682016. Telex: CN 0885-534.

Sports Goods Export Promotion Council: 1E/6, Jhandewalan Extension, New Delhi 110055.

Textiles Committee (Min. of Commerce, Government of India), Textile Centre, 34, P.D'Mellow Rd., Bombay 400009. *Regional Offices:* Ahmedabad, Amritsar, Andheri (Bombay), Bangalore, Calcutta, Coimbatore, Indore, Kanpur, Ludhiana, Madurai, Madras, New Delhi (Karol Bagh), Naraina (Delhi), South Delhi, Nagpur, Surat, Sholapur, Sangli and Cannanore. *Other Offices:* Inspection and Laboratory: 79, Dr. Annie Besant Road, Worli, Bombay 400018; Market Research: 103, Kakad Chambers, Bombay 400018.

Wool and Woollens Export Promotion Council: 612/714, Ashoka Estate, Barakhamba Road, New Delhi 110001. Tel.: 45512 & 45205; Gram: "Warmth"; Telex: 031-4500. *Regional Offices:* (*i*) Churchgate Chambers, 5, New Marine Lines, Bombay 400020. Tel.: 296640/294181; Gram: "Woollens"; Telex: 011-3922; (*ii*) Sekhon Niwas, 704/3, Gurdev Nagar, Pakhowal Road, Ludhiana. Tel.: 35842, 30173; Gram: 'Exprocil'; Telex: 0386-257.

BANKING

BANKING is known to have been practised in India since the sixth century B.C. by money-lenders. They dealt in 'hundies' i.e. bills of exchange. During the 17th century A.D. the indigenous bankers used to make remittances of money, grant crop loans and property loans and also finance agriculture and internal trade.

With the arrival of the British East India Company, a great change took place in the monetary system in India. A few British merchants in Calcutta promoted Agency Houses which received deposits and granted advances and also issued paper currency. The Calcutta Agency Houses were the precursors of early Joint Stock Banking in India. To Alexander & Co. goes the credit of establishing the Bank of Hindustan in Calcutta in 1770.

In 1833 the Calcutta Agency Houses came to grief because of reckless speculation. Around that time a few banks were established which were based on the principle of unlimited liability. Between 1833 and 1860, 12 such banks were established and half of them had to close down due to speculation and frauds. In 1860, by an Act, the principle of limited liability was applied to the Joint Stock Banking. It was between 1806 and 1843 the Bank of Bengal, the Bank of Bombay and the Bank of Madras were established under a Charter. The Government were shareholders in these banks and deposited large funds with them. These three banks were renamed the Presidency Banks by an Act of the British Parliament in 1876 and in 1920 the three Presidency Banks were taken over by the Imperial Bank of India under a special legislation. The Imperial Bank acted as the banker to the Government till 1935 when the Reserve Bank of India was established as the Central Bank of the country.

As many as 3,484 (2,719 in unbanked centres) new branches were opened between July, 1981, and June, 1982, against 3,291 during the previous year. Of these, 1,230 branches were opened by 20 nationalised banks, 544 by the State Bank of India and its subordinates 182 by private sector banks, 1,527 by the regional rural banks and one by a foreign bank. The total number of bank offices stood at 39,180 on 30th June, 1982.

With the upsurge in **rural banking** there has been a significant diversification of bank credit to previously neglected sectors such as agriculture, small industries, transport, professionals and self-employed persons, retail trade, export and food procurement. Bank credit to these sectors had gone up from Rs. 9,050 million in June, 1969 to Rs. 291,590 million in March, 1982.

During the year gross bank credit increased by Rs. 43,550 million compared with an increase of Rs. 35,690 million during the corresponding period in 1980-81. There was an increase of Rs. 3,680 million in public food procurement credit as against a decline of Rs. 3,410 million during the previous year: Non-food gross credit also increased by Rs. 39,870 million against Rs. 39,100 million in the earlier year.

The total deposits of all scheduled commercial banks increased from Rs. 46,460 million in June, 1969 to Rs. 333,770 million in June, 1980, Rs. 405,490 million in June, 1981 and Rs. 458,310 million in June, 1982.

Average population served by the commercial banks is 17,500 at the end of June, 1982. It is 4,000 in Britain, 2,600 in France, 5,000 in the U.S., 5,500 in Japan and 1,300 in West Germany.

Working Results of Scheduled Commercial Banks: The working results of all 74 scheduled commercial banks indicate that their profits during 1981 increased by Rs. 126 million compared with the rise of Rs. 90 million in 1980.

Selected data for Scheduled Commercial Banks

Item	June 1980	June 1981	June 1982
No. of offices	32,419	35,707	39,180
Aggregate deposits (Rs. million)	335,770	405,490	458,310
Total bank credit (Rs. million)	220,680	265,510	301,040
Credit deposit ratio (%)	66.1	65.5	65.7
Investment in government and other approved securities (Rs. million)	118,240	142,220	168,830
Investment deposit ratio (%)	35.5	35.1	36.8
Cash in hand and balances with R.B. (Rs. million)	40,890	55,010	57,280

Progress of Banking

Item	June 1969	June 1982
BANK OFFICES (No.)	8,262	39,180
(a) Rural	1,832	20,398
(b) Semi-urban	3,322	8,763
(c) Urban	1,447	5,360
(d) Metropolitan centres	1,661	4,659

Earning of these banks during the year increased by Rs. 10,840 million to Rs. 53,055 million. The total expenses of these banks also increased by Rs. 10,710 million to Rs. 52,416 million or by 25.7 per cent during 1981.

Foreign Banks: The total income of 12 foreign banks increased from Rs. 1,831 million in 1980 to Rs. 2,212 million in 1981, showing a rise of about Rs. 381 million. The profit of the foreign banks thus showed an increase of about Rs. 144 million against Rs. 90 million in the previous year.

Nationalisation of Banks: Fourteen banks were nationalised by an ordinance on 20th July, 1969.

Nationalised Banks: The names of 14 banks and the names of the chairmen and managing directors are given below:

The Central Bank of India: B. V. Sonalkar; The Bank of India: Tarkeshwar Tiwari; The Punjab National Bank: S. L. Baluja; The United Commercial Bank: S. P. Sengupta; The Canara Bank: B. Ratnakar; The United Bank of India: C. R. Sengupta; The Dena Bank: M. N. Goiporia: The Syndicate Bank: H. N. Rao; The Union Bank of India; J. S. Bhatnagar; The Bank of Baroda: Y. V. Sivaramakrishnayya; The Allahabad Bank: R. Srinivasan; The Indian Bank: M. G. K. Nair; The Bank of Maharashtra: P. S. Deshpande; The Indian Overseas Bank: P. B. Srinivasan.

Besides, six more banks in the private sector were nationalised on April 15, 1980. The six banks and the names of chairmen and managing directors are: The Andhra Bank: K. G. K. Murthy; The New Bank of India: Vacant; The Oriental Bank of Commerce: Vacant; The Punjab and Sind Bank: S. Mohinder Singh; The Corporation Bank: Y. S. Hegde; The Vijaya Commercial Credit Ltd.: R. Vijayaraghavan.

Regional Rural Banks: There were 121 regional rural banks covering 207 districts in 19 states, as on June 30, 1982. These banks had set up 5,048 branches and had mobilised deposits worth Rs. 3,550 million towards the end of March, 1982.

Meanwhile, commercial banks continued the policy of expansion in unbanked and underbanked areas. The year ended June 1983 witnessed further expansion of branch network of commercial banks with emphasis on reduction of inter-regional disparities in the spread of banking facilities, increase in lending support to priority sectors particularly to weaker sections and larger mobilisation of deposits. Unbanked centres continued to receive special attention. Out of 2,030 new offices opened during the first nine months (July, 1982-March, 1983) of the year, 1,550 offices were in unbanked centres; the remaining 480 offices were in banked centres.

With the establishment of 2,030 new offices, the average population per bank office for the country as a whole declined to 17,000 in March, 1983.

The table below shows selected data of the six banks nationalised on April 15, 1980 (December 31, 1983):

(Rs. Million)

Name	No. of Branches	Total Deposits	Total Advances	Total Investment
Andhra Bank	728	9,055	5,265	2,713
Corporation Bank	348	4,060	2,168	1,225
New Bank of India	481	6,977	3,750	1,948
Oriental Bank of Commerce	386	4,873	2,652	1,458
Punjab and Sind Bank	576	8,361	5,228	1,786
Vijaya Commercial Credit Ltd.	607	6,045	3;370	1,861

Export-Import Bank of India, Mittal Court, 'B' Wing, 2nd Flr., 224, Nariman Point, Bombay 400021. An apex financial institution set up by the Govt. of India to provide financial assistance to exporters of goods and services from our country, and to co-ordinate the activities of other financial institutions engaged in the field of international finance.

Chairman & Mg. Director: R. C. Shah.

National Bank for Agricultural and Rural Development (NABARD): It has been formed by combining the Agricultural Refinance and Development Corpn; and two departments of Reserve Bank of India, dealing in rural credit. It was inaugurated on 5.11.82. It would provide an integrated structure for credit for rural and agricultural development.

The State-wise distribution of bank offices at the end of June 1969, June 1981 & June 1982.

States & Union Territories	Opened during 1980-81 (July-June)		Opened during 1981-82 (July-June)		Population per bank office (in thousand) as at the end of		No. of offices at the end of		
	Total centres	Of which Unbanked centres	Total centres	Of which Unbanked centres	June 1981	June 1982	June 1969	June 1981	June 1982
Andhra Pradesh	287	216	236	176	19	18	567	2,762	2,998
Assam	41	33	55	39	39	35	74	507	1,562
Bihar	487	429	413	381	29	25	273	2,394	2,807
Gujarat	120	64	89	40	14	14	752	2,363	2,452
Haryana	64	45	62	53	16	15	172	810	1,872
Himachal Pradesh	45	36	43	39	11	10	42	369	412
Jammu & Kashmir	65	52	94	74	13	11	35	459	546
Karnataka	158	97	181	136	13	12	756	2,792	2,973
Kerala	149	101	89	50	11	10	609	2,340	2,429
Madhya Pradesh	335	303	336	288	24	21	1,343	2,177	2,510
Maharashtra	311	230	257	174	17	16	1,118	3,631	3,838
Manipur	2	1	2	—	39	37	2	37	39
Meghalaya	4	3	9	3	23	20	7	59	67
Nagaland	5	5	5	2	19	17	2	40	45
Orissa	153	129	260	232	27	21	100	968	1,228
Punjab	48	22	81	56	10	10	346	1,592	1,672
Rajasthan	167	106	147	91	21	19	364	1,638	1,785
Sikkim	2	1	3	3	105	45	—	3	7
Tamil Nadu	202	142	209	154	16	15	1,060	3,016	3,225
Tripura	8	2	1	1	24	24	5	85	86
Uttar Pradesh	388	264	619	522	27	23	747	4,128	4,747
West Bengal	193	149	232	181	24	23	504	2,233	2,465
Union Territories									
Andaman & Nicobar Islands	—	—	—	—	16	16	1	12	12
Arunachal Pradesh	3	3	3	2	29	25	—	22	25
Chandigarh	2	—	9	4	6	5	20	80	89
Dadra & Nagar Haveli	2	1	—	—	17	17	—	6	6
Delhi	35	18	42	12	7	7	274	872	914
Goa, Daman & Diu	12	8	2	2	4	4	85	244	246
Lakshadweep	—	—	—	—	8	8	—	5	5
Mizoram	—	—	1	1	41	41	—	12	13
Pondicherry	3	2	4	3	12	11	12	51	55
Total	3,291	2,461	3,484	2,719	19	17	8,262	35,706	39,180

BULLION

GOLD: The quest for gold is centuries old, but it has been available in bulk quantity only for the last 130 years. The gold mined between 1492 and 1975, is estimated to be 80,000 tonnes. But more gold had been mined from 1800 to 1975 than in the preceding 5,000 years, following more discoveries in Brazil, Russia, South Africa, California (U.S.A.), Australia and South America. More than three quarters of the total gold had been mined in the 20th century and little more than two-thirds of it since 1931. Since 1976 it is estimated that the gold production outside the communist world was 7,000 tonnes.

International Price of Gold: The price of gold in the free markets fluctuated between $124 an ounce in January 1976 to $132 in January 1977 and later went up to $243.65 in October 31, 1978. The year 1979 ended with a record price of $524 an ounce in London and $534.5 in Comex (New York). The year 1982 began with $383.9 and ended with $444.9

In January, 1975, the 126 countries of the International Monetary Fund (IMF) agreed to abolish the official price of gold, thus putting an end to the privileged role gold had been enjoying in the international monetary system since the end of World War II. The decision paved the way to the elimination of any reference to gold in the IMF statutes and amounted to a new step towards the release of gold stocks held by central banks.

The decision of the IMF to sell one-sixth of its gold to the market over a period of four years had a psychological impact on the Gold Market during 1976 and 1977; but in fact these sales represented less than eight per cent of total supplies.

Official Gold Holdings: The following table shows the value of gold holdings of central banks all over the world (except China, U.S.S.R. and associated countries) and of the I.M.F. in millions of Special Drawing Rights at 35 S.D. Rs. per fine ounce.

	1981	Sept. 1982
Central Banks	33,316	33,304
I. M. Fund	3,620	3,620
Total	36,936	36,924

Gold Production and Consumption: Gold production in the free market in 1982 was 994 tonnes. In the non-communist countries only 720 tonnes of gold was used for jewellery during the year. The sales of the Soviet Union, the world's second largest producer after South Africa, came down to 180 tonnes in 1982 from 280 tonnes in 1981.

The demand for gold touched 1,381 tonnes in 1970 while in 1973 it came down to 1,350 tonnes. Absorption of this in Europe was 780 tonnes, and in the rest of the world 570 tonnes.

India absorbed about 63 tonnes in 1973 compared to 110 tonnes in 1972, 179 tonnes in 1971 and 217 tonnes in 1970. The demand in 1974 was only 14 tonnes while in 1975 and 1976 it went to 25 and 33 tonnes respectively. In 1977 and 1978 India absorbed a total of about 65 tonnes. In 1979 the gold demand was estimated at 120 tonnes and in 1980 at 80 tonnes due to consumer resistance against high prices. Most of the gold that came to India in the past was through unauthorised imports. In 1981, about 20-30 tonnes of gold came into India and in 1982 about 66 tonnes.

Gold Standard: The true gold standard existed only in the 50 years preceding World War I. Till the 19th century most countries were on silver or bimetallic (silver 15 or 16 part, gold one part) standard. Britain went into a formal gold standard in 1816. Europe followed in 1870s and U.S.A. started after 1900—same as India. However, gold standard was only a phase and was over by 1914.

International gold exchange standard prevailed since the last war till 1973. It meant a country's monetary authority responsible for determining and managing the supply of gold to supplement their resources with key currencies, notably dollars and sterling, which could be redeemed for gold.

This pattern, however, changed when in February, 1973 the U.S.A. devalued its dollar for the second time in 14 months by 10 per cent.

An ounce of gold that for 37 years cost only $35 and which went, officially, to $38 in 1972, was worth $42.22 towards the end of 1973. In reality, no gold was traded at that price. In the wake of U.S. devaluation, the price of gold in London market shot up beyond expectations and the free price of gold at one time touched $198 per ounce in 1974.

In 1974, the U.S. withdrew the free convertibility of dollars with gold. Except. in France, there had been no restoration of an international gold standard thereafter.

In the outside world, 1978 and 1979 were the years of much uncertainty and great fluctuations in the fortunes of gold.

In 1978 the price of gold in the international market fluctuated between $172.50 and $226.60 per ounce and in 1979 between $219.34 and $426.37. In 1980, the gold price was between $850 and $975, and in 1981, between $600 and $390 per ounce. In 1982 the gold price fluctuated between $320 and $460 per ounce.

India and Gold: The Indian gold market is different from the international market. India has the world's largest stock of privately hoarded gold estimated unofficially at 5,400 tonnes against the aggregate world stocks of 87,000 tonnes. The mobilisation of this gold could affect the international market also, besides improving the economic conditions in the country. But this is unlikely to happen unless a social revolution takes place. As a protective measure, India's hoarded gold should be coaxed into the market and also her output of 2.6 tonnes per year should be stepped up. The demand for jewellery is about 100 tonnes per year in India. About 60 per cent of this is supplied through recycling of fabrication.

GOLD PRODUCTION: The following table shows the revised production of gold in various countries in fine kilos:

Countries	1982	1981	1980	1979
South Africa	6,64,000	6,57,000	6,74,000	7,03,300
Ghana	13,000	14,000	13,000	11,500
Other African	27,000	23,000	17,000	18,000
Canada	62,000	52,000	48,000	49,000
U.S.A.	44,000	43,000	30,000	28,300
Latin America	98,000	92,000	86,000	67,700
Philippines	25,000	23,000	22,000	19,100
Papua/ New Guinea	18,000	17,000	14,000	19,700
Australia	23,000	17,000	17,000	18,500
Other Asian/ Oceana	12,000	11,000	12,000	31,800
Europe	8,000	9,000	12,000	10,000
	9,94,000	9,58,000	9,45,000	9,77,000
South Africa (Per cent)	67	69	71.3	71.9

Stocks of Gold in India: It was estimated that the total stocks of gold in the country in 1951 was 85.4 million ozs. Since 1951 to December, 1972, the smuggled gold was estimated at 58.1 million ozs. bringing the total stock to 143.5 million ozs. (4,600 tonnes or 4,600,000 kg.) as on December 31, 1972. The present stock of gold in India is estimated at 5,400 tonnes.

Gold Auction by Government: Before the auction took place in the first week of May, 1978 there was a tendency towards a fall in the price of gold. However, after an initial fall the unofficial price of gold went up to as much as Rs. 720 per ten grammes. Slight fluctuations were recorded during May but the price never reached a level anticipated by the Government.

Unfortunately, by reason of the unprecedented world-wide speculation in gold that gathered momentum after August, 1978, the price of gold in the country went up by leaps and bounds and the Government was forced to suspend the gold auctions at the end of October after 14 auctions of which two were infructuous. The amount of gold sold by the auctions was 12.89 tonnes estimated at Rs. 365.5 million at the then prevailing price.

Since then the price of gold had gone up to as much as Rs. 1,800 per ten grammes in 1980 and at present ruling between Rs. 1,800 and Rs 1,900.

Silver

The year 1980 was the first time since 1971 the silver prices were lower at the end of the year than at the beginning. The frequency and violence of price fluctuations in the year were even greater than during 1979. The New York silver price (New York is the world's premier spot and future market for the white metal) reached a new all-time high of $48.00 per ounce and fell to $10.80 per ounce four months later. Investor and privately-held stocks increased by very large amounts in spite of record high prices, and finally, silver delivered to the market from secondary sources exceeded new mine production for the first time in history.

The 1980 average New York silver price of $20.63 per ounce was the highest in history and represented 86 per cent increase over the previous year. In December 1982, the price of silver was the highest in the New York silver market of $11.21 for the year and the lowest was $8 per ounce

It is estimated that in 1980, new production was 8,665 metric tonnes against an aggregate demand for 335 million ounces for industrial uses-out of this latter, India's share is estimated about 14.80 million ounces.

Gold & Silver Prices

Year	GOLD PER TOLA			SILVER PER 100 TOLAS		
	Highest Rs. a. p.	Lowest Rs. a. p.	Average Rs. a. p.	Highest Rs. a. p.	Lowest Rs. a. p.	Average Rs. a. p.
1928-29	21 11 6	21 4 6	21 6 10	66 6 0	58 2 0	60 9 2
1929-30	21 0 0	21 5 3	21 7 5	59 7 0	46 14 0	53 9 11
1930-31	21 13 3	21 3 6	21 12 6	57 4 0	39 0 0	46 15 1
1931-32	31 2 0	21 3 6	24 4 3	66 8 0	41 12 0	50 3 11
1932-33	32 1 6	26 10 0	29 5 2	60 0 0	48 14 0	52 11 11
1933-34	34 12 0	28 11 0	32 4 5	59 14 0	52 15 0	56 0 10
1934-35	36 13 3	33 3 0	35 15 8	67 0 0	50 7 6	60 13 5
1935-36	36 12 0	31 3 6	35 4 11	87 0 0	46 12 0	65 1 1
1936-37	35 8 0	35 15 3	34 12 6	56 2 0	47 0 0	50 5 8
1937-38	32 2 0	34 3 6	34 7 10	55 15 6	46 1 6	51 4 1
1938-39	37 10 7	34 12 3	35 10 3	53 1 6	48 2 0	51 11 3
1939-40	43 8 0	36 9 0	39 13 11	66 4 0	44 7 6	55 4 9
1940-41	48 8 0	40 2 6	42 6 0	64 13 0	54 10 0	62 8 0
1941-42	57 12 0	41 9 6	44 7 11	97 6 0	61 12 6	66 11 4
1942-43	72 0 0	44 12 0	57 10 10	116 8 0	75 4 0	94 2 6
1943-44	96 4 0	65 4 0	76 11 6	141 8 0	101 8 0	120 7 11
1944-45	76 12 0	61 2 0	71 7 4	143 4 0	113 10 0	128 10 9
1945-46	97 12 0	63 6 0	80 3 0	159 6 0	118 0 0	135 1 11
1946-47	111 0 0	84 4 0	101 1 2	195 0 0	127 0 0	162 4 10
1947-48	117 12 0	95 14 0	108 0 4	183 8 0	142 8 0	166 12 6
1948-49	121 0 0	103 0 0	114 9 10	190 8 0	166 8 0	177 9 0
1949-50	119 10 0	107 2 0	114 14 11	192 12 0	158 14 0	174 11 10
1950-51	120 2 0	104 12 0	113 7 4	198 12 0	173 14 0	185 14 3
1951-52	118 10 0	79 0 0	98 8 0	207 4 0	139 0 0	173 2 0
1952-53	95 14 0	77 5 0	88 0 1	174 12 0	141 12 0	159 8 4
1953-54	93 6 0	79 8 0	86 1 6	167 14 0	148 14 0	157 4 10
1954-55	95 6 0	83 0 0	89 2 4	173 14 9	147 15 0	159 3 9
	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
1955-56	91.79	76.66	82.12	157.59	132.68	144.65
1956-57	93.98	84.83	89.61	160.64	144.63	150.58
1957-58	98.06	89.59	92.99	168.09	151.91	158.32
1958-59	103.31	89.33	96.09	173.19	152.99	162.95
1959-60	107.98	99.98	103.71	187.12	164.50	176.08
1960-61	124.40	107.12	114.01	209.30	181.00	193.64
1961-62	126.00	115.85	121.25	219.65	196.95	206.49
1962-63	129.90	86.00	117.71	242.00	187.80	218.69
1963-64	118.00	97.00	111.98	269.00	222.50	240.32
	69.75	58.00	61.85			
1964-65	72.75	63.25	68.84	281.50	224.00	261.17
1965-66	85.00	70.50	77.78	406.50	281.00	314.62
1966-67	92.75	76.00	83.85	385.00	336.00	358.88
1967-68	168.00	146.00	156.97	565.00	346.00	430.09
1968-69	181.00	150.00	160.45	633.00	508.00	556.67
1969-70	192.00	163.50	179.62	521.00	446.00	489.13
1970-71	198.00	177.50	184.96	588.50	483.50	536.08
1971-72	214.50	188.00	200.16	610.50	512.25	561.35
1972-73	288.00	202.00	242.14	655.00	495.00	554.20
1973-74	525.00	279.00	369.23	1,420.00	612.00	796.14
1974-75	565.00	470.00	518.00	1,340.00	981.00	1,161.00
1975-76	574.00	511.00	542.00	1,427.00	1,001.00	1,214.00
1976-77	566.00	504.00	535.00	1,410.00	1,083.00	1,246.50
1977-78	701.00	561.00	631.00	1,383.00	1,093.00	1,238.00
1978-79	960.00	645.00	802.50	1,958.00	1,334.00	1,646.00
1979-80	1,300.00	862.00	1,081.00	3,134.00	1,535.00	2,334.50
1980-81	1,800.00	1,350.00	1,575.00	3,678.00	2,180.00	2,929.00
1981-82	1,795.00	1,605.00	1,718.50	2,795.00	2,400.00	2,635.42
1982-83	1,780.00	1,610.00	1,695.00	3,030.00	2,510.00	2,770.00

(a) Spot prices relate to gold bullion upto 1963, 14 carat gold upto 1966 and to standard gold from 1967 onwards.
(b) Average relating to closing quotations for working days.
(c) The quotations from 1955-56 onwards are in Rupees and Naye Paise.
(d) The quotations from 1960 onwards are per 10 gms. of gold and per kg. of silver instead of tola and 100 tolas respectively.
(e) Spot prices of silver relate to 0.996 fineness.

Among the principal reasons for this spectacular rise in the price of silver is the persisting imbalance between the demand for industrial uses and primary supply (i.e. newly mined production) It is estimated that in 1980, new production was 255 million ounces against the aggregate demand for 355 million ounces for industrial uses—out of this latter, India's share is estimated about 16.00 million ounces.

For many years India has been an important source of silver to world markets. However, silver is not produced in India and whatever silver is exported comes out of stocks which were accumulated through the centuries. The Government is conscious of this fact and hence the attempt to regulate the export of silver. On February 20, 1979 it was decided to ban export of silver. However, according to Handy & Harman, perhaps 25.7 million ounces were shipped to the world markets during 1980, an increase of about 11.2 million ounces from the previous year. If prices remain at the present levels, a continuing outflow of silver from India may be expected.*

The consumption of silver in India during 1982 amounted to about 16 million ounces against 18 million ounces in 1980.

*_Source_: Samuel Montagu & Co. Ltd., London.

NATIONAL INCOME

NATIONAL income and related aggregates constitute some of the key economic data of any country. They provide a money measure of all economically meaningful activity, of savings, capital formation and consumption in addition to such standard information about the rate of economic growth, per capita income, net product by industry of origin and factor incomes by sectors. In the words of the first report of the National Income Committee, "a national income estimate measures the volume of commodities and services turned out during a given period, counted without duplication."

Usually, the estimates of national income are prepared both at current prices as well as in relation to a base year (that is, national income at constant prices) so that it is possible to evaluate the performance of the economy in real terms, thereby neutralising the impact of inflation. In many of the advanced countries which have a well developed statistical system, national income statistics are compiled on a quarterly basis and are available within 6 to 8 weeks from the period of reference. In India, however, these data are published only after a considerable time, though of late, the delay is somewhat less. These estimates for the country are prepared by the Central Statistical Organisation (CSO), usually in two stages. First, CSO issues what has been called the "Quick estimates" which is followed by a detailed White Paper entitled National Accounts Statistics.

According to the quick estimates released by CSO, the national income at constant (1970-71) prices registered an increase of 1.7 per cent during 1982-83 as against 4.9 per cent in 1981-82. In absolute terms, real national income during 1982-83 stood at Rs. 504,860 million as compared to Rs. 496,390 million in 1981-82. At current prices, India's national income rose by 9.9 per cent to Rs. 1,340,660 million in 1982-83 from Rs. 1,219,890 million in 1980-81.

The per capita income in real terms is estimated at Rs. 712 for 1982-83 as against Rs. 715 in 1981-82, showing a decline of 0.4 per cent. The per capita income at curent prices works out to Rs. 1,891 in 1982-83 as against Rs. 1,758 in 1981-82, an increase of 7.6 per cent.

Selected data on national income and related aggregates are presented in the following tables.

TABLE 1: TRENDS IN GROSS NATIONAL PRODUCT, NET NATIONAL PRODUCT AND PER CAPITA INCOME

Year	Gross National Product (Rs. million)		Net National Product (i.e. National income) (Rs. million)		Per Capita National Income (Rs.)	
	At Current Prices	At 1970-71 prices	At current prices	At 1970-71 prices	At current prices	At 1970-71 prices
1950-51	91,360	174,690	88,120	167,310	245.5	466.0
1955-56	97,100	208,540	92,620	199,530	235.7	507.7
1960-61	139,990	254,240	132,630	242,500	305.6	558.8
1965-66	218,660	287,910	206,370	271.030	425.5	558.8
1970-71	364,520	364,520	342,350	342,350	632.8	632.8
1971-72	389,720	370,000	365,730	347,150	660.2	626.6
1972-73	429,390	365,990	402,700	341,910	711.5	604.1
1973-74	534,470	384,100	504,240	359,670	870.9	621.2
1974-75	629,720	388,570	594,460	365,020	1,005.9	617.6
1975-76	661,150	425,710	620,690	400,640	1,024.2	661.1
1976-77	712,310	429.020	667,540	402,710	1,076.7	649.5
1977-78	804,930	467,140	755,360	439,510	1,191.4	693.2
1978-79	868,160	493,860	811,230	463,860	1,251.9	715.8
1979-80	950,230	470,020	883,720	439,220	1,332.9	662.5
1980-81	1,138,820	506,030	1,058,340	473,120	1,558.7	696.8
1981-82	1,317,400	532,270	1,219,890	496,390	1,757.8	715.3
1982-83	1,451,410	541,870	1,340,660	504,860	1,890.9	712.1

TABLE 2: ANNUAL GROWTH RATES (PER CENT) OF NATIONAL AND PER CAPITA INCOME

(a—at current prices; b—at 1970-71 prices)

Period/Year	Gross National Product		Net National Product		Per Capita Net Product	
	a	b	a	b	a	b
First Plan	1.2	3.6	0.9	3.6	−1.0	1.7
Second Plan	7.6	4.0	7.4	4.0	5.3	2.0
Third Plan	9.3	2.5	9.2	2.2	6.8	—
1966-69	11.5	4.1	11.5	4.0	9.1	1.8
Fourth Plan	12.0	3.4	12.0	3.4	9.5	1.1
1970-71	8.7	5.6	8.3	5.9	5.9	3.2
1971-72	6.9	1.5	6.8	1.4	4.3	−1.0
1972-73	10.2	−1.1	10.1	−1.5	7.8	−3.6
1973-74	24.5	4.9	25.2	5.2	22.4	2.8
1974-75	17.8	1.2	17.9	1.5	15.5	−0.6
1975-76	5.0	9.6	4.4	9.8	1.8	7.0
1976-77	7.7	0.8	7.5	0.5	5.1	−1.8
1977-78	13.0	8.9	13.2	9.1	10.7	6.7
1978-79	7.9	5.7	7.4	5.5	5.1	3.3
1979-80	9.5	−4.8	8.9	−5.3	6.5	−7.4
1980-81	19.8	7.7	19.8	10.8	16.9	5.2
1981-82	15.7	5.2	15.3	4.9	12.8	2.7
1982-83	10.2	1.8	9.9	1.7	7.6	−0.4

TABLE 3 : NET DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY OF ORIGIN

(Rs. million)

Industry	At current prices		At 1970-71 prices	Percentage distribution		
				At current prices		At 1970-71 prices
	1970-71	1982-83	1982-83	1970-71	1982-83	1982-83
1. Agriculture	163,540	431,890	187,430	47.4	32.2	37.1
2. Forestry & Logging	3,970	16,490	3,270	1.1	1.2	0.6
3. Fishing	2,290	10,380	2,790	0.7	0.8	0.6
4. Mining & Quarrying	3,270	38,890	5,940	0.9	2.9	1.2
Primary (1 to 4)	173,070	497,650	199,430	50.1	37.1	39.5
5. Manufacturing	46,190	210,660	75,800	13.4	15.7	15.0
6. Construction	18,530	67,560	24,450	5.4	5.0	4.9
7. Electricity, gas, water supply	3,180	22,240	7,590	0.9	1.7	1.5
Secondary (5 to 7)	67,900	300,460	107,840	19.7	22.4	21.4
8. Transport, storage & communications	15,740	75,190	32,840	4.6	5.6	6.5
9. Trade, hotels & restaurants	38,800	231,550	63,710	11.2	17.3	12.6
10. Banking & insurance	6,440	44,340	15,530	1.9	3.3	3.1
11. Real estate, ownership of dwellings and business services	10,390	36,130	15,290	3.0	2.7	3.0
12 Public administration & defence	16,350	75,250	44,840	4.7	5.6	8.9
13. Other services	16,500	80,160	25,400	4.8	6.0	5.0
Tertiary (8 to 12)	104,220	542,620	197,610	30.2	40.5	39.1
Net domestic product	345,190	1,340,730	504,880	100.0	100.0	100.0

TABLE 4: PER CAPITA PRIVATE FINAL CONSUMPTION EXPENDITURE, RATE OF SAVING AND RATE OF CAPITAL FORMATION

Year	Per Capita Private Final Consumption Expenditure (Rs.)		Rate of Saving*		Rate of Capital Formation*	
	At current prices	At 1970-71 prices	Gross	Net	Gross	Net
1970-71	551.5	551.5	16.8	12.0	17.8	13.0
1971-72	579.4	554.2	17.3	12.4	18.4	13.6
1972-73	620.7	531.3	16.2	11.3	16.9	11.9
1973-74	741.5	533.3	19.3	15.0	20.0	15.7
1974-75	880.6	527.0	18.2	13.8	19.1	14.8
1975-76	874.5	552.3	20.0	15.4	19.9	15.3
1976-77	875.3	535.4	22.3	17.7	20.7	16.0
1977-78	990.3	577.1	21.8	17.2	20.1	15.4
1978-79	1,051.3	589.1	24.3	19.6	24.4	19.7
1979-80	1,117.5	554.6	22.5	17.4	23.0	18.0
1980-81	1,322.3	590.4	22.9	17.7	24.7	19.6
1981-82	1,469.4	592.0	23.0	17.6	25.0	19.7
1982-83	1,536.2	581.9	22.3	16.7	24.1	18.6

*As per cent of gross/net domestic product at market prices.

ECONOMIC SITUATION

OPTIMISM marks the economic situation during 1983-84, in contrast to the very poor showing in 1982-83. After a period of relative stagnation, the output of major food and cash crops is expected to touch new levels during the year thanks to the exceptionally good performance of the monsoon, aided by smooth and adequate supplies of key inputs. In particular, the harvest of foodgrains is likely to exceed the target of 142 million tonnes by a good margin. The industrial sector, based on preliminary data, is however, facing difficulties and no appreciable pick-up in growth rate as compared to the previous year is envisaged during 1983-84.

In any case, the targeted growth rate of 8 to 9 per cent is almost certain to be missed. But the performance is expected to be good in respect of the key industries like coal, cement and petroleum as well in the energy sector. The foreign trade picture is mixed with exports growth rate lagging behind the target but even so, with import bill more or less manageable, the trade deficit during 1983-84 may be smaller than in 1982-83. The price situation is causing anxiety with no abatement of inflationary pressures in evidence. Taking an overall view, the economic growth rate during the year may be an impressive 6 to 7 per cent as compared to around 2 per cent in the previous year. But this heartening factor should not obscure the fact that in the recent past economic performance has been uneven.

The economy showed a significant recovery in 1980-81 and made further substantial progress in 1981-82. The gross domestic product in real terms, which had declined by about 5 per cent in 1979-80, registered an increase of 7.9 per cent in 1980-81 and of another 5.2 per cent in 1981-82. Furthermore, the growth was accompanied by a marked decline in the rate of inflation in 1981-82. However, the weather conditions turned out to be unfavourable in 1982-83. Widespread drought and floods in certain parts of the country had a serious adverse effect on *kharif* output and the economy as a whole. The industrial growth rate declined. On the whole, the gross domestic product is expected to increase by about 2 per cent only in 1982-83. On this basis, the average real rate of growth during the three years 1980-81 to 1982-83 would work out to about 5 per cent, which is fairly close to the annual average of 5.2 per cent envisaged in the Sixth Plan.

Despite the fall in *kharif* output and slower industrial growth, the price situation was by and large kept under control through an appropriate mix of policies. The infrastructural sectors of energy, irrigation and transport showed substantial improvement, thereby providing a firm base for further development. The balance of payments position, however, continued to be under strain and the country had a substantial overall deficit although it was lower than in 1981-82.

Foodgrains production, which had declined to 109.7 million tonnes in 1979-80, rose to 129.6 million tonnes in 1980-81 and further to 133.1 million tonnes in 1981-82. In 1982-83, however, the *kharif* output received a serious setback due to severe drought over vast areas and floods in certain parts of the country. Drought affected some 48 million hectares in 1979-80. Efforts were made to minimise production losses during the *kharif* season and increase production during the *rabi* season through optimum utilisation of irrigation facilities and streamlined arrangements for the supply of other inputs.

An additional irrigation potential of 2.34 million hectares was created during the year, against 2.23 million hectares in 1980-81 and 2.24 million hectares in 1981-82. It is expected that *rabi* production would reach a record level of 56 to 57 million tonnes as against the previous high of 54 million tonnes in 1981-82. Wheat production is expected to touch a new peak of level of more than 41 million tonnes. On the whole, the total foodgrains production in 1982-83, is expected at 126.8 million tonnes, representing a decline of 6.3 million tonnes as compared to the preceding year. This decline is much less than the loss of 22.2 million tonnes suffered in 1979-80, even though the drought in 1982-83 was more severe than in 1979-80. This is indicative of the vigour and resilience of Indian agriculture and the timely and vigorous efforts of Government. Furthermore, the production of pulses in 1982-83 is expected to be slightly higher than in the preceding year. Among commercial crops, the production of sugarcane is at the same level as in 1981-82, of cotton higher by 2.2 per cent, of oilseeds lower by 10.4 per cent and of jute and mesta lower by 14.6 per cent.

With substantial efforts, the infrastructure showed a further improvement. Production of coal, which had increased from about 104 million tonnes in 1979-80 to as much as 124.9 million tonnes in 1981-82, is estimated to have risen further to about 130.6 million tonnes in 1982-83. Although this represents a shortfall of about 2.4 million tonnes as compared to the target, the production was more than adequate to take care of the requirements and the pit-head stocks are estimated to have gone up by about 2 million tonnes during the year.

Production of crude oil, which had increased from 11.8 million tonnes in 1979-80 to 16.2 million tonnes in 1981-82, is estimated to have risen further to over 21 million tonnes in 1982-83 as a result of the accelerated oil development programme. In fact, it was fairly close to the target of 21.6 million tonnes originally fixed for last year of the Sixth Plan. The corresponding figures for refinery throughout were 27.5 million tonnes in 1979-80, 30.16 million tonnes in 1981-82 and 33.16 million tonnes in 1982-83. On the whole, the prospect for oil development are now far better than at the time of the formulation of the Sixth Plan. The increase of domestic production of oil has contributed significantly to containing the import bill and keeping the balance of payments deficit within manageable limits.

Power generation, which had increased by 9.8 per cent during 1981-82, rose further by 6.5 per cent during 1982-83. In absolute terms, power generation in 1982-83 was 139.5 billion units, which was close to the target of 140 billion units. Thermal generation registered an impressive growth of 15.5 per cent during 1982-83 due to close monitoring better availability of coal, adequate supply of spares and improved maintenance of plant and equipments. Capacity utilisation in thermal plants increased from 46.8 per cent in 1981-82 to 49.8 per cent in 1982-83. The installation of new generation capacity increased from 1,823 MW in 1980-81 and 2,175 MW in 1981-82 to 3,060 MW in 1982-83, due partly to the measures taken to improve management, avoid delay in the execution of civil works and ensure delivery of plant and equipment according to the agreed schedules. Nevertheless, the actual installation of new capacity in 1982-83 still fell short of the target by 422 MW. Efforts for improving the performance in this area are, therefore, being further intensified.

The movement of revenue earning freight traffic by the railways, which reached the record level of 221 million tonnes in 1981-82, rose further to 228 million tonnes in 1982-83. Capacity utilisation by railways, as measured by net tonne kilometres per wagon per day, showed a further improvement and is estimated to have reached an all time high of 1,125 net tonne kilometres per wagon per day on the broad gauge section during 1982-83 as compared to 1,112 net tonne kilometres per wagon per day in 1981-82. The increased movement of traffic by the railways contributed materially to the maintenance of supply of various commodities at reasonable level in different parts of the country and had an all-round beneficial effect on the economy.

Industrial production, which increased by 8.6 per cent in 1981-82, recorded an increase of 3.7 per cent in 1982-83 over the previous year. The reasons for this relatively low growth rate vary from industry to industry. The growth is, however, by no means insignificant when viewed against the fact that it has been achieved on the relatively higher base of the previous year and also in spite of the sluggish output in many industries, which had achieved peak levels during the previous year, and a prolonged strike in textile industry. It is also encouraging to note that significant increases were recorded in the output of certain key industries like fertilisers, cement, sugar, vanaspati, newsprint etc. Besides, high growth rates were recorded in the case of industrial machinery like boilers, mining machinery, sugar machinery and chemicals and pharmaceutical machinery, earth moving equipment and transport equipment like scooters, motor cycles, mopeds and three-wheelers. There was, however, a decline in the case of railway wagons and coaches, locomotives and certain items relating to drugs and pharmaceuticals, basic chemicals and intermediates, machinery and consumer durables.

Although the overall growth of industrial production showed a substantial decline in 1982-83, there was no generalised recession in the economy. Several industries experienced a shortfall in output, but the causes of the shortfall were specific to each industry. The stringency of bank credit during the closing months of 1981-82 also affected the offtake of industries, which had recorded high levels of output in the previous year. Certain industries suffered due to power cuts or export constraints. In the case of the cotton textile industry, the prolonged strike in the Bombay mills further aggravated the situation and led to a significant decline in output.

Despite larger additional resource mobilisation by the Centre and the States in 1982-83 as compared to the original estimates, the total contribution to the Plan from the normal budgetary resources of the Central and State Governments and by way of internal resources of public enterprises fell short of the plan estimates. As a result, deficit financing is estimated to have been higher than originally envisaged. The budget deficit of the Centre is estimated to have increased from the original estimates of Rs. 13,710 million to Rs. 36,780 million. This includes an amount of Rs. 17,430 million on account of the medium-term loans given to the States to clear their deficits as on April 1, 1982, which did not have any economic impact in 1982-83. Excluding this amount, the budget deficit of the Centre shows an increase of Rs. 5,640 million over the original estimates. As for the States, all except six agreed in the discussions with the Planning Commission to close the year without any deficit. The agreed deficit of these six States is Rs. 850 million.

Since the unanticipated deficits of the States have a disturbing effect of the economy, particularly on the price situation, the Centre, in consultation with the Reserve Bank of India, evolved and introduced a new Overdraft Regulation Scheme from July1, 1982. It was made clear to the State Government that in case there were deficits at the close of the year 1982-83 or there was an excess in the deficit over what had been agreed to, this would be adjusted against the Annual Plan, 1983-84. However, in order to provide a cushion against temporary imbalances between receipts and expenditure, the State Governments' limits for ways and means advances from the Reserve Bank of India have been doubled. The new Overdraft Regulation Scheme has been working successfully so far and the State Governments have shown a satisfactory measure of co-operation in avoiding the recourse to accommodation from the Reserve Bank to finance their normal expenditure.

Money supply increased by 12 per cent during 1982-83 as against 6.5 per cent in 1981-82. The increase in aggregate monetary resources (M3) at 14.8 per cent was, however, only a little higher than the increase of 12.6 per cent in the preceding year. The higher rate of increase in money supply in 1982-83 was mainly on account of the contraction of the net decline in the banking sector's foreign exchange assets.

Judicious use of fiscal and monetary policies with efficient supply management helped in keeping the inflationary pressures under control despite the severe setback to kharif output on account of the adverse weather conditions. Although on a point-to-point basis, the index of wholesale prices showed an increase of 6.2 per cent in 1982-83 as against 2.4 per cent in the preceding year, the average index for 1982-83 showed an increase of only 2.5 per cent over the preceding year. The corresponding increase in the average index in 1982-83 was as much as 9.3 per cent. The consumer price index on a point-to-point basis, shows an increase of 9.8 per cent during 1982-83 as against 8.8 per cent in the preceding year. The increase in 1982-83 in the average consumer price index was, however, 7.7 per cent which is lower than the increase of 12.5 per cent in the preceding year.

The increase of 6.2 per cent in the index of wholesale prices during 1982-83 on a point-to-point basis was due largely to the increase in the prices of agriculture-based commodities primarily because of the unfavourable monsoon and its adverse impact on kharif output. Cereals accounted for as much as 21.6 per cent, fruits and vegetables for 12.3 per cent and tea for 7.8 per cent of the price rise. Among non-agricultural commodities, fuel, power, light steel and other ferrous metals accounted for 23 per cent of the price rise.

The increase in the consumer price index during 1982-83 was higher than in the index of wholesale prices. This seems to be mainly due to the fact that there was a substantial increase in the prices of some essential commodities, which have a much higher weight in the consumer price index than in the wholesale price index.

The domestic saving rate in 1982-83 is estimated to have remained more or less at the same level as in 1981-82. The investment rate is, however, expected to have been somewhat lower, due mainly to a smaller inflow of resources from abroad.

The pressure on the balance of payments situation was contained in 1982-83, despite a setback to exports caused largely by an unfavourable international economic environment, characterised, among other things, by near stagnation of world trade and increasing protectionism. However, the progress of import substitution, notably in the energy sector, restrained the growth of the import bill and the trade deficit is estimated to have narrowed a little during the year. The overall balance of payments position also recorded an improvement, though partly as a result of some transient inflows.

Taking into account net invisibles, net aid receipts and other inflows, the overall balance of payments deficit in 1982-83 was significantly lower than in 1981-82. This improvement on external account, along with a withdrawal of Rs. 18,910 million from the International Monetary Fund resulted in an increase of Rs. 9,110 million in the country's gross foreign exchange reserves between April, 1982, and March, 1983.

CENTRAL BUDGET 1984-1985

THE total receipts of the Centre are budgeted at Rs. 405,004 million and disbursements at Rs. 425,355 million at the existing level of taxation, leaving a budgetary deficit of Rs. 20,351 million. As a result of additional resource mobilisation, this deficit is expected to drop to Rs. 17,622 million. According to the revised estimates, the uncovered gap rose from the budgeted Rs. 15,862 million to Rs. 20,954 million during 1983-84 mainly because of the clearance of the deficit of states as of March 31, 1983.

The budget for 1984-85 contains several concessions and reliefs in income-tax, corporate tax and union excise duties. The entire additional resource mobilisation has come from customs duties which are expected to net Rs. 4,582 million and, on the other hand, the revenue loss because of the lowering of tax rates would amount to Rs. 1,893 million in union excise duties, Rs. 200 million in corporate taxes and Rs. 550 million in income-tax. Because a major tax effort has come only from customs duties which are not sharable with states, as a result of the budget proposals for 1984-85, there would be a loss of Rs. 791 million in the amount accruing to the states from the sharable taxes. While, the additional tax revenue for the Centre is placed at Rs. 1,938 million for 1984-85, if account is taken of the revenue loss to the states, the net effect of the proposals would be that an additional yield of Rs. 2,729 million would accrue to the Centre as per the budget estimates for 1984-85.

The receipts under revenue account are placed at Rs. 240,164.1 million during 1984-85 as against the revised estimates of Rs. 209,643.2 million during 1983-84. Capital receipts for 1984-85 are estimated at Rs. 167,569.3 million as against Rs. 159,643.1 million during 1983-84. On the disbursement side, the expenditure under revenue account is budgeted at Rs. 263,419.9 million during 1984-85 against the revised figure of Rs. 233,394.3 million during 1983-84 while the capital disbursements are envisaged at Rs. 161,935.4 million in 1984-85 against Rs. 156,846.3 million in the preceding year. Tables 1 and 2 give a summary of the budgetary receipts and disbursements under revenue and capital account.

PLAN OUTLAY

The annual Plan for 1984-85 envisages a total public sector outlay of Rs. 301,321 million which represents an increase of 18.3 per cent over the approved outlay of Rs. 254,800 milllion for 1983-84. The budgeted outlay for the Central Sector is Rs. 173,510 million for 1983-84 and for the States and Union Territories, the total outlay for 1984-85 is Rs. 127,811 million.

The step-up in the plan outlay for 1984-85 in the Central Sector is just over 25 per cent and for the States and Union Territories 9 per cent as compared to 1983-84. The allocation of the 1984-85 outlay in the public sector among the different sectors has been made keeping in view the objectives and priorities of the Sixth Plan. Accordingly, the plan accords high importance to programmes that support weaker sections, especially in the rural areas. Thus, it provides adequate outlays for poverty alleviation programmes which form an important segment of the Sixth Plan.

The allocation for the energy sector (including power, coal and petroleum) accounts for nearly 32 per cent of the total public sector plan outlay for 1984-85. As much as 67 per cent of the total outlay is accounted for by the following four sectors: energy, industry & minerals, transport and irrigation (Table 3).

Table 1: Summary of Receipts—Revenue and Capital Account

(Rs. million)

Item	1983-84 (Budget)	1983-84 (Revised)	1984-85 (Budget)
A: Revenue Account (1+2)	205,939.3	209,643.2	240,164.1
Tax revenue	206,381.1	209,460.5	231,862.8
Less: States' share	51,782.5	52,455.9	56,595.4
1. Centre's net tax revenue	154,598.6	157,004.6	175,267.4
2. Non-tax revenue	51,340.7	52,638.6	64,896.7
B: Capital Account (3 to 11):	126,559.8	159,643.1	167,569.3
3. Market loans (net)	40,004.2	40,004.2	40,999.4
4. Capital investment bonds	2,000.0	600.0	600.0
5. External loans	16,054.3	16,289.2	17,934.9
6. Recovery of loans and advances	32,670.0	38,722.8	39,047.8
7. Small savings	17,000.0	22,000.0	24,000.0
8. Provident funds	3,300.0	3,480.0	3,530.0
9. Special deposits of non-govt provident funds	8,500.0	9,500.0	11,000.0
10. Special deposits of LIC, GIC etc.	1,400.0	2,300.0	3,000.0
11. Other receipts	5,631.3	26,746.9	27,457.2
Grand total	332,499.1	369,286.3	407,733.4

Table 2: Summary of Disbursements—Revenue and Capital Account

(Rs. million)

Item	1983-84 (Budget)	1983-84 (Revised)	1984-85 (Budget)
A. **Revenue Account** (1 to 4)	224,188.7	233,394.3	263,419.9
1. General Services	125,367.1	127,621.7	143,825.0
2. Social and community services	14,440.8	14,781.9	16,767.9
3. Economic services	41,935.8	44,510.8	50,941.6
4 Grant-in-aid etc.	42,445.0	46,479.9	51,885.4
B. Capital Account	124,171.6	156,846.3	161,935.4
5. General services	8,418.6	13,329.5	10,608.2
6. Social and community services	2,234.5	2,457.1	3,222.5
7. Economic services	37,179.0	46,626.0	49,211.6
8. Loans and advances	76,339.5	94,433.7	98,893.1
Total (A + B)	348,360.3	390,240.6	425,355.3

Table 3: Annual Plan Outlay 1984-85

(Rs. million)

Head of Development	Centre	States & Union Territories	Total
Agriculture	6,114.2	9,230.9	15,345.1
Rural Development	9,926.3	8,092.1	18,018.4
Special area programmes	—	4,245.1	4,245.1
Irrigation & Flood Control	1,540.0	25,206.2	26,746.2
Energy	60,470.5	35,044.8	95,515.3
Industry and minerals	40,082.7	5,869.3	45,952.0
Transport	25,244.8	9,248.1	34,492.9
Communication, information & broadcasting	9,636.9	160.8	9,797.7
Science and technology	3,320.0	120.2	3,440.2
Social services	14,682.1	28,500.6	43,182.7
Special incentive for better performance by states	2,000.0	—	2,000.0
Others	492.5	2,093.3	2,585.8
Total outlay	173,510.0	127,811.4	301,321.4

SIXTH FIVE-YEAR PLAN (1980-85)

THE Sixth Plan has been formulated taking into account both the achievements and the shortcomings of the past three decades of planning, the recent economic developments which have a bearing on the growth prospects of the economy in the medium term as well as the vision of the future as reflected in the long term perspective. The Plan will cover a period of five years from April 1980 to the end of March 1985.

While the broad goals, objectives and strategy of the Sixth Plan as originally formulated by the Planning Commission have not undergone any basic changes, more recently the Planning Commission has issued a mid-term appraisal of the Sixth Plan. In this review, the Planning Commission takes stock of the performance of the Sixth Plan during the first three years and the likely trends during 1983-84. In the light of these developments, the planning exercise has been somewhat recast to some extent and the details of these are furnished after the following overall review of the Sixth Plan

The objectives of the Sixth Plan and the major areas of effort required for fulfilling these objectives are as follows:

(i) A significant step up in the rate of growth of the economy, the promotion of efficiency in the use of resources and improved productivity;

(ii) strengthening the impulses of modernisation for the achievement of economic and technological self-reliance;

(iii) a progressive reduction in the incidence of poverty and unemployment;

(iv) a speedy development of indigenous sources of energy, with proper emphasis on conservation and efficiency in energy use;

(v) improving the quality of life of the people in general with special reference to the economically and socially handicapped population, through a minimum needs programme whose coverage is so designed as to ensure that all part of the country attain within a prescribed period nationally accepted standards;

(vi) strengthening the redistributive bias of public policies and services in favour of the poor contributing to a reduction in inequalities of income and wealth;

(vii) a progressive reduction in regional inequalities in the pace of development and in the diffusion of technological benefits;

(viii) promoting policies for controlling the growth of population through voluntary acceptance of the small family norm;

(ix) bringing about harmony between the short and the long term goal of development by promoting the protection and improvement of ecological and environmental assets; and

(x) promoting the active involvement of all sections of the people in the process of development through appropriate education, communication and institutional strategies.

The strategy adopted for the Sixth Plan consists essentially in moving simultaneously to strengthen the infrastructure for both agriculture and industry so as to create conditions for an accelerated growth in investments, output and exports, and to provide through special programmes designed for the purpose, increased opportunities for employment especially in the rural areas and the unorganised sector and meet the minimum basic needs of the people.

The attack on the problem of poverty is most effective only in the conditions of an expanding economy. Since growth by itself may not suffice, other programmes and policies will be adopted with the specific aim of improving the living conditions of the masses and to bring about a reduction in inequalities of income and wealth. The scheme of the Sixth Plan outlays provides specific allocations for such programmes.

The Sixth Plan aims at a growth in gross domestic product of 5.2 per cent a year and per capita income by 3.3 per cent per annum. Thus by 1984-85 per capita income is expected to reach Rs. 1,744 at 1979-80 prices compared with Rs. 1,488 in the base year.

AVENUES OF PUBLIC EFFORT

The realisation of the growth targets of the Sixth Plan will involve a significant acceleration of the pace of development both in agriculture and in industry. An effective implementation of the Plan will require a significant increase in investment rate—from 21.8 per cent of GDP at market prices in 1979-80 to 25.1 per cent in 1984-85. Correspondingly, the domestic savings rate will have to go up from 21.2 per cent of GDP in 1979-80 to 24.5 per cent in 1984-85.

In addition vigorous efforts will be necessary to secure a significant improvement in the utilisation of the existing assets—both in agriculture and in industry. To this end, the plan lays great emphasis on fuller utilisation of the existing irrigation potential as well as on improved functioning of infrastructure consisting of power, coal and transport.

The plan lays particular attention to the investment needs of these sectors so that the future growth of the economy is not hampered by shortages of critical inputs. In addition, the plan contains a comprehensive outline of the basic policy framework designed to promote savings, productivity and greater efficiency.

An aggregate outlay of Rs. 1,722,100 million is envisaged for the Sixth Five-Year Plan. Of this the public sector outlay has been estimated at Rs. 975,000 million while the balance of Rs. 747,100 million would be in the private sector.

The total outlay in the public sector of Rs. 975,000 million includes current outlay, i.e., outlay mainly for the maintenance of services created during the Plan period and which does not create assets of Rs. 135,000 million. Thus, the public sector investment outlay in the Plan will be Rs. 840,000 million.

In comparison with the Fifth Five-Year Plan (1974-1979), the outlay for the Sixth Plan represents an increase of 148 per cent in nominal terms. Even after allowing for the rise in the price level in the intervening period, the increase comes to more than 80 per cent.

Of the total public sector outlay of Rs. 975,000 million, Rs. 472,500 million is in the Central sector and the balance of Rs. 502,500 million is in the States and Union Territories. The share of the latter in the total works out to 51.54 per cent.

The public sector outlays separately for Centre, States and Union Territories (UTs) are given in Table 1.

The details of financing of the public sector plan outlay are presented in Table 2.

The mid-term appraisal of the Sixth Plan makes a cautiously optimistic assessment about the success of the Plan. Taking the first four years of the plan, the total actual or approved outlays account for

TABLE 1: PUBLIC SECTOR OUTLAY

(Rs. million)

Head of Development	Centre	States	U. Ts.	Total
Agriculture	24,501.3	31,190.2	1,259.2	56,950.7
Rural development	23,148.7	30,200.3	288.3	53,637.3
Special Area Programmes		14,800.0	—	14,800.0
Irrigation and Flood Control	6,350.0	113,954.8	1,295.5	121,600.3
Energy	119,950.0	142,935.6	2,468.8	265,354.4
Power	47,250.0	142,935.6	2,468.8	192,654.4
New and renewable sources of energy	1,000.0	—	—	1,000.0
Petroleum	43,000.0	—	—	43,000.0
Coal	28,700.0	—	—	28,700.0
Industry & Minerals	127,714.7	21,858.6	602.4	150,175.7
Village & small scale	9,234.0	8,151.1	419.4	17,804.5
Large & medium	118,480.7	13,707.5	183.0	132,371.2
Transport	84,186.4	37,073.4	2,859.9	124,119.7
Railways	51,000.0	—	—	51,000.0
Roads	8,300.0	23,988.7	2,100.9	34,389.6
Road transport	700.0	11,114.0	141.5	11,955.5
Other transport	24,186.4	1,970.7	617.5	26,774.6
Communications & Information & Broadcasting	31,019.8	286.1	36.7	31,342.6
Science and Technology	8,481.5	170.5	—	8,652.0
Social services	44,534.2	88,308.8	7,509.6	140,352.6
Others	2,613.4	5,221.7	179.6	8,014.7
Grand Total	472,500.0	486,000.0	16,500.0	975,000.0

TABLE 2: FINANCING OF THE SIXTH PLAN

(Rs. million at 1979-80 prices)

Item	Centre*	States	Total
Balance from current revenues at 1979-80 rates of taxes	11,780	133,000	144,780
Contribution of public enterprises	99,110	(—) 5,160	93,950
Market borrowings (excluding market borrowings of **financial institutions)**	150,000	45,000	195,000
Small savings	21,120	43,510	64,630
Provident funds	16,600	20,420	37,020
Term loans from financial institutions	—	27,220	27,220
Misc. capital receipts (net)	61,700	(—) 21,610	40,090
Inflow of foreign resources	99,290	—	99,290
(i) Net aid	58,890	—	58,890
(ii) Other inflows	40,400	—	40,400
Drawing down of foreign exchange reserves	10,000	—	10,000
Additional resources mobilisation	122,900	90,120	213,020
Uncovered gap/deficit financing	50,000	—	50,000
Total Resources—A	642,500	332,500	975,000
Central assistance for State Plans—B	(—) 153,500	(+) 153,500	
Resources available for Plan (A - B)	489,000	486,000	975,000

(*)—Inclusive of Union Territories.

Rs. 798,800 million which constitutes as much as 83 per cent of the total public sector outlay of Rs. 975,000 million. The document however points out that inflation, particularly in imported capital goods has eroded the real value of plan investments. At 1979-80 prices, this represents 62 per cent of the plan outlay. To offset this shortfall, for 1983-84, the Centre has stepped up its investments by Rs. 8,000 million mostly in the core sectors. The appraisal also stresses the need to improve the efficiency of utilisation of the investment in infrastructure and in productive equipment as also the need for public enterprises to maximise their surplus.

As regards the fiscal targets, the mid-term appraisal has revised some of them in the light of the trends that have emerged during the first three years of the Sixth Plan. These are indicated in Table-3 which gives selected macro economic indicators as originally envisaged and which have been now revised and in Table-4 which gives the targets of production for principal commodities/services based on the original Sixth Plan projections and as modified in the mid-term appraisal.

TABLE 3: SELECTED MACRO-ECONOMIC INDICATORS

Indicator	1979-80 (actual)	Plan 1984-85	1984-85 (revised)
Growth rates (%)			
Gross domestic product at factor cost	—	5.20	4.98
Private final consumption expenditure	—	4.69	3.14
Gross domestic capital formation	—	9.27	7.16
Import of goods	—	7.89**	6.0
Export of goods	—	9.0	3.9
Ratios and Propensities (%)*			
Saving ratio	22.5	24.48	24.00
Ratio of current account balance to investment over the plan period (balance of payments)	—	5.71	6.34
Marginal propensity to save over the Plan period	—	33.75	29.42
Marginal propensity to consume over the Plan period	—	64.37	67.32
Import elasticity (Merchandise) over the Plan period	—	1.27	1.20
Import to GDP (market prices) ratio	8.54	8.77	8.97

(*)—All ratios and propensities are with respect to GDP at 1979-80 market prices.

(**)—Excluding contingency imports.

TABLE 4: PHYSICAL TARGETS OF PRODUCTION FOR PRINCIPAL COMMODITIES/SERVICES

Item	Unit	1979-80	1984-85	
			Sixth Plan projections	Mid-term estimates
Foodgrains	Mill.tonnes	109	149—154	146—148
Sugarcane	"	128	200—215	190—195
Jute and Mesta	Lakh bales	80.3	91.0	91.0
Oilseeds (five major)	Lakh tonnes	81	110	110
Cotton	Lakh bales	77	92	90—92
Tea	Mill. Kgs.	550	705	705
Coffee	"	150.00	159.45	159.45
Milk	Mill.tonnes	30.27	38	38
Eggs	Mill. Nos.	12,320	16,300	14,000
Coal	Mill.tonnes	103.96	165.00	154
Lignites	"	3.12	8.00	8.00
Crude petroleum	Mill. tonnes	11.77	21.6	27.52
Iron ore and concentrates	"	39	60	45.0
Sugar	"	3.9	7.6	7.64
Vanaspati	'000 tonnes	626	900	950
Cloth (Mill and decentralised sector)	Mill.meters	10,435	13,030	13,000
Jute manufactures	'000 tonnes	1,336	1,500 to 1,540	1,500
Paper and Paper board	"	1,050	1,500	1,500
Newsprint	"	47.45	180	200
LD Polyethylene	"	71.3	100	105
HD Polyethylene	"	25.4	27.0	35.0
PVC	"	49.9	128.0	120
Natural rubber	"	148.47	200.0	200.0
Synthetic rubber (SBR & PBR)	"	30.3	45	42
Petroleum products (including lubricants)	"	25.8	35.3	39.3
Sulphuric acid	"	2,131	3,600	2,600
Caustic Soda	"	549.6	850	775
Soda ash	"	555.8	850	720
Polypropylene	"	13.4	27.0	27.0
Caprolactam	"	13.5	18.0	18.0
D.M.T.	"	27.9	56.0	65.0
Nitrogenous fertilisers	"	2,226	4,200	4,100
Phosphatic fertilisers	"	757	1,400	1,300
Cement	Mill.tonnes	70.68	34 to 34.5	34.5
Pig Iron for sale	"	1.09	1.52	1.47
Saleable steel (Plan Carbon)	"	7.38	11.51	10.90
Aluminium	'000 tonnes	192	300	260
Copper refined	"	18.8	45.0	40.0
Zinc	"	52.65	85.00	70.0
Lead	"	11.4	25.0	25.0
Agricultural tractors	'000 Nos.	62.5	100.0	100.0
Machine tools	Rs. million	1,633	2,500	3,500
Hydro turbines	Mill. KW	0.95	1.20	1.20
Thermal turbines	"	2.28	3.50	3.50
Electric Transformers	Mill. KV	18.7	35.00	25.00
Commercial vehicles	'000 Nos.	57.4	105.00	20.00
Electricity generation	Billion KWH	112	191	170
Railways originating traffic	Mill.tonnes	217.8	309	280 to 285
Irrigation				
a) additional potential	Mill.hecs.	56.50	13.74	11.45
b) additional utilisation	"	52.32	13.60	11.50 to 12

CORPORATE GIANTS IN INDIA (1981-82)

(Private Sector)

Rank	Name of the Company	Year ending	Total Assets (Rs. Million)
1	Tata Iron & Steel Co. Ltd.	Mar. 82	6,500.7
2	Tata Engineering & Locomotive Co. Ltd.	Mar. 82	6,051.8
3	Calcutta Electric Supply Corpn. Ltd.	Mar. 82	2,735.5
4	Reliance Textile Industries Ltd.	Dec. 81	2,620.3
5	Associated Cement Co. Ltd.	July. 81	2,411.7
6	Hindustan Lever Ltd.	Dec. 81	2,402.0
7	Ashok Leyland Ltd.	Dec. 81	2,363.3
8	Scindia Steam Navigation Co. Ltd.	June 81	2,259.1
9	Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd.	Mar. 82	2,166.6
10	J.K. Synthetics Ltd.	Dec. 81	2,103.8
11	Indian Tobacco Co. Ltd.	Mar. 82	2,101.9
12	Hindustan Aluminium Corpn. Ltd.	Dec. 81	2,019.7
13	Ambalal Sarabhai Ltd.	June 81	1,999.5
14	Delhi Cloth & General Mills Co. Ltd.	June 81	1,850.3
15	Gujarat State Fertiliser Co. Ltd.	Dec. 81	1,789.6
16	Southern Petrochemicals Industries Corpn. Ltd.	June 81	1,687.4
17	Indian Explosives	Sept. 81	1,640.9
18	Dunlop India Ltd.	Dec. 81	1,638.3
19	Great Eastern Shipping Co. Ltd.	June 81	1,559.3
20	Indian Aluminium Co. Ltd.	Dec. 81	1,556.2
21	Tata Power Co. Ltd.	Mar. 82	1,545.1
22	Century Spg. & Mfg. Co. Ltd.	Dec. 81	1,505.9
23	Hindustan Motors Ltd.	Mar. 82	1,470.6
24	Larsen & Toubro Ltd.	Sept. 81	1,422.1
25	Engineering Construction Corpn. Ltd.	Sept. 81	1,406.4
26	Mahindra & Mahindra Ltd.	Oct. 81	1,295.0
27	Voltas Ltd.	Aug. 81	1,281.8
28	Renusagar Power	Dec. 81	1,264.2
29	ACC-Vickers-Babcock Ltd.	Mar. 82	1,205.4
30	Guest Keen Williams Ltd.	Dec. 81	1,201.5
31	Ahmedabad Electricity Co. Ltd.	Mar. 82	1,129.7
32	Ahmedabad Mfg. & Calico Printing Co. Ltd.	Mar. 82	1,113.4
33	Union Carbide India Ltd.	Dec. 81	1,101.1
34	Indian Steamship Co. Ltd.	Mar. 82	1,093.8
35	Ballarpur Industries Ltd.	June 81	1,053.5
36	Escorts Ltd.	Dec. 81	1,045.1
37	Straw Products Ltd.	Dec. 81	1,040.8
38	Metal Box Co. of India Ltd.	Sept. 81	1,018.6
39	National Organic Chemical Industries Ltd.	Dec. 81	1,012.1
40	Bombay Suburban Electric Supply Ltd.	Mar. 82	1,006.5
41	East India Hotels Ltd.	Mar. 82	985.7
42	Peico Electronics Ltd.	Dec. 81	964.9
43	Modi Rubber Ltd.	Oct. 81	937.8
44	Birla Jute Mfg. Co. Ltd.	Mar. 82	929.3
45	Siemens India Ltd.	Sept. 81	923.5
46	Crompton Greaves Ltd.	June 81	904.5
47	Andhra Valley Power Project	Mar. 82	895.5
48	Tata Chemicals Ltd.	June 81	881.5
49	Nirlon Synthetic Fibres & Chemicals Ltd.	Mar. 82	880.8
50	Tata Oil Mills Co. Ltd.	Mar. 82	868.1
51	Bombay Dyeing & Mfg. Co. Ltd.	Mar. 81	864.8
52	Mahindra Ugine Steel Co. Ltd.	Dec. 81	864.1
53	Raymond Woollen Mills Ltd.	Mar. 82	843.4
54	Mangalore Chemicals & Fertilizers Ltd.	Dec. 81	814.8
55	Standard Mills Co. Ltd.	June 82	801.7
56	Madura Coats Ltd.	June 81	784.4
57	Orient Paper Mills Ltd.	Mar. 82	778.4
58	Chowgule Steamship Ltd.	Mar. 82	761.8
59	Zuari Agro Chemicals Ltd.	Dec. 81	749.5
60	Rallis India Ltd.	Aug. 81	734.0
61	Ceat Tyres of India Ltd.	Dec. 81	729.5
62	Mafatlal Fine Spg. & Mfg. Co. Ltd.	Mar. 82	727.0
63	Mafatlal Industries Ltd.	Mar. 82	713.1
64	Hindustan Construction Co. Ltd.	July 81	691.6
65	Brooke Bond India Pvt. Ltd.	June 81	691.3
66	Indian Tube Co. Ltd.	Mar. 82	680.6
67	Mukand Iron & Steel Works Ltd.	June 81	677.1
68	Coromandel Fertilizers Ltd.	Dec. 81	663.2
69	Indian Oxygen	Sept. 81	654.8
70	Glaxo Laboratories (India) Ltd.	June 81	638.6
71	Indian Rayon Corpn. Ltd.	June 81	636.0
72	Kesoram Industrial Cotton Mills Ltd.	Mar. 82	633.8
73	Bajaj Auto Ltd.	June 81	630.8
74	Ratnakar Shipping Co. Ltd.	Mar. 82	628.6
75	Tata Hydro Electricity Co. Ltd.	Mar. 82	628.2
76	Duncan Agro Industries Ltd.	Sept. 81	626.0
77	Golden Tobacco Co. Ltd.	June 81	611.9
78	Motor Industries Co. Ltd.	Dec. 81	602.7
79	Dempo Steamships Ltd.	June 81	601.9
80	Shree Ambica Mills Ltd.	Dec. 81	587.3
81	Baroda Rayon Corpn. Ltd.	Dec. 81	580.5
82	Kamani Engineering Ltd.	Sept. 81	575.7
83	Kirloskar Oil Engines Ltd.	June 81	573.3
84	J.K. Industries Ltd.	Dec. 81	572.4
85	E.I.D. Parry Ltd.	Dec. 81	568.6
86	Bhadrachalam Paperboards Ltd.	Sept. 81	567.2
87	Simon Carves India Ltd.	Dec. 81	566.9
88	National Rayon Corpn. Ltd.	Dec. 81	558.6
89	Polyolefins Industries Ltd.	Dec. 81	555.9
90	Damodar Bulk Carrier	Mar. 82	554.0
91	Walchandnagar Industries Ltd.	Sept. 81	543.0
92	Atul Products Ltd.	Dec. 81	536.2
93	Jayshree Tea Ind. Ltd.	Mar. 82	535.6
94	Jiyajeerao Cotton	Mar. 82	534.7
95	Elecon Engineering Co. Ltd.	Dec. 81	533.6
96	Indian Dyestuff Industries Ltd.	Mar. 82	531.7
97	McDowell	Dec. 81	527.8
98	Ferro Alloys Corpn. Ltd.	Dec. 81	520.1
99	Sree Rayalaseema Paper	Sept. 81	513.3
100	Kirloskar Cummins	Sept. 81	511.8
101	Premier Automobiles Ltd.	June 81	506.6

COMPANY AFFAIRS

As on 31st March 1982, there were 71,689 companies limited by shares at work in various States and Union Territories with an aggregate paid-up capital of Rs. 196,621 million. Of these, the Government companies numbered 894 and the paid-up capital amounted to Rs. 128,791 million. The non-Government companies were 70,795 in number with a total paid-up capital of Rs. 40,830 million. Thus, of the total number of companies limited by shares at work during 1981-82, the Government companies accounted for 1.2 per cent but the paid-up capital of these Government companies claimed a share of as high as 75.9 per cent of the total paid-up capital of all the companies at work and which were limited by shares during the year ending March 1982. On the other hand, the non-Government companies constituted as much as 98.8 per cent of the total number of companies limited by shares but only for 24.1 per cent of the aggregate paid-up capital.

In additon to these companies limited by shares, there were 219 companies with unlimited liability as of 31st March 1982, 1,496 companies limited by guarantee and associates not for profit and 311 foreign companies as defined under section 591 of the companies Act 1956.

New Registration: During the year 1981-82, 41 Government companies and 9,978 non-government companies with liability limited by shares, 43 non-government companies with unlimited liability and 21 non-government companies with liability limited by guarantee were registered under the companies Act 1956, making a total of 10,083 companies. The government companies registered during 1981-82 had an authorised capital of Rs. 22,646 million.

The 9,978 non-government companies registered during 1981-82 had an authorised capital of Rs. 8,878 million. Of these, 845 were public limited companies with an aggregate authorised capital of Rs. 3,177 million and 9,133 were private limited companies with total authorised capital of Rs. 5,701 million.

Liquidations: During 1981-82, 330 non-government companies limited by shares were declared defunct and their names were struck off the registers maintained by the Registrar of Companies. Of these, 68 companies went into voluntary liquidation, 42 were liquidated under Court orders and 220 were struck off the registers by the Registrar of Companies.

Capital Raised: During 1981-82, an amount of Rs. 20,281 million was raised by way of paid-up capital by Government companies. During the same year, an amount of Rs. 2,647 million was reported to have been raised by way of paid-up capital by non-government companies which included Rs. 159 million as bonus issues.

Distribution of Foreign Companies and their Country of Origin as on 31st March

Country of origin	1978	1979	1980	1981	1982
United Kingdom	265	189	152	133	129
U.S.A.	80	64	57	57	62
Japan	20	17	19	19	19
West Germany	11	5	5	7	7
Pakistan	6	6	5	5	5
Switzerland	8	5	5	5	5
France	8	7	7	7	10
Canada	7	6	6	6	6
Netherlands	7	5	5	4	4
Other countries	61	54	54	57	64
Total	473	358	315	300	311

Note: Foreign companies as defined under section 591 of the Companies Act.

Non-Government Companies at Work 1972-73 to 1981-82

(Paid-up capital in Rs. million)

Year ended March	Public		Private		Total	
	No.	Paid-up capital	No.	Paid-up capital	No.	Paid-up capital
1972-73	6,819	21,756	27,147	5,745	33,966	27,501
1973-74	7,071	23,233	29,964	6,626	37,035	29,859
1974-75	7,725	24,844	32,736	7,504	40,011	32,348
1975-76	7,465	25,361	35,149	7,833	42,614	33,194
1976-77	7,585	25,544	37,346	8,193	44,931	33,737
1977-78	7,725	26,494	39,485	8,473	47,210	34,967
1978-79	7,893	26,880	42,376	8,749	50,269	35,629
1979-80	8,225	27,515	46,730	9,068	54,955	36,583
1980-81	8,749	28,562	52,401	9,672	61,150	38,234
1981-82	9,530	30,225	61,265	10,605	70,795	40,830

Note: Figures from 1975-76 onwards are provisional.

State-wise Distribution of Government Companies at Work as on 31-3-1982

(Paid up capital in Rs. million)

States/Union Territories	Public		Private		Total	
	No.	Paid-up capital	No.	Paid-up capital	No.	Paid-up capital
Andhra Pradesh	22	955	28	2,481	50	3,436
Assam	6	42	22	1,221	28	1,263
Bihar	16	156	32	5,848	48	6,004
Gujarat	28	418	12	2,125	40	2,543
Haryana	4	906	7	117	11	1,023
Himachal Pradesh	7	97	6	169	13	266
Jammu & Kashmir	2	2	12	394	14	396
Karnataka	23	702	38	5,036	61	5,738
Kerala	19	1,573	56	1,876	75	3,449
Madhya Pradesh	6	174	22	417	28	591
Maharashtra	30	1,385	44	6,594	74	7,979
Nagaland	1	20	6	364	7	384
Orissa	22	572	20	1,302	42	1,874
Punjab	7	23	3	81	10	104
Rajasthan	7	209	10	1,560	17	1,769
Tamil Nadu	44	1,527	26	4,366	70	5,893
Uttar Pradesh	51	1,440	39	1,130	90	2,570
West Bengal	36	1,783	45	17,159	81	18,942
Chandigarh	23	168	24	430	47	598
Delhi	4	344	46	63,257	50	63,601
Goa, Daman & Diu	9	62	1	5	10	67
Manipur	—	—	6	40	6	40
Meghalaya	2	76	8	55	10	131
Pondicherry	—	—	2	35	2	35
Tripura	2	6	4	54	6	60
Arunachal Pradesh	—	—	2	10	2	10
Mizoram	—	—	1	4	1	4
Andaman & Nicobar islands	1	21	—	—	1	21
Total	372	12,661	522	116,130	894	128,791

State-wise Distribution of Non-Government Companies Limited by Shares at Work as on 31-3-1982

(Paid up capital in Rs. million)

States/Union Territories	Public		Private		Total	
	No.	Paid-up capital	No.	Paid-up capital	No.	Paid-up capital
Andhra Pradesh	332	1,573	2,203	432	2,535	2,005
Assam	103	584	630	96	733	680
Bihar	127	246	901	171	1,028	417
Gujarat	426	2,964	3,678	880	4,104	3,844
Haryana	104	230	449	111	553	341
Himachal Pradesh	20	57	184	27	204	84
Jammu & Kashmir	18	30	231	29	249	59
Karnataka	412	1,204	2,865	425	3,277	1,629
Kerala	396	641	1,479	179	1,875	820
Madhya Pradesh	143	636	957	235	1,100	871
Maharashtra	1,576	7,879	15,326	2,657	16,902	10,536
Nagaland	2	1	24	1	26	2
Orissa	108	333	488	52	596	385
Punjab	123	282	1,730	289	1,853	571
Rajasthan	216	309	1,129	243	1,345	552
Tamil Nadu	907	2,646	4,796	699	5,703	3,345
Uttar Pradesh	409	1,315	2,773	401	3,182	1,716
West Bengal	3,325	6,433	11,521	1,667	14,846	8,100
Chandigarh	44	179	385	49	429	228
Delhi	690	2,353	8,915	1,703	9,605	4,056
Goa	25	313	394	236	419	549
Manipur	1	—	9	—	10	—
Meghalaya	12	9	55	3	67	12
Pondichery	8	8	101	19	109	27
Tripura	—	—	11	—	11	—
Andaman & Nicobar	—	—	6	—	6	—
Dadra & Nagar Haveli	—	—	10	1	10	1
Arunachal Pradesh	3	—	14	—	17	—
Mizoram	—	—	1	—	1	—
Total	9,530	30,225	61,265	10,605	70,795	40,830

Distribution of Government Companies by Industrial Activity as on 31-3-1982

(Paid up capital in Rs. million)

Industrial classification	Public		Private		Total	
	No.	Paid-up capital	No.	Paid-up capital	No.	Paid-up capital
Agricultural & allied activities	34	297	51	987	85	1.284
Mining & Quarrying	13	760	35	29.683	48	30.443
Processing & manufacture of food stuffs, textiles, leather and products thereof	70	1.238	93	5.307	163	6.545
Processing & manufacture of metals & chemicals and products thereof	116	5.769	96	32.908	212	38.677
Processing & manufacture not elsewhere classified	42	1.507	38	6.619	80	8.126
Construction and utilities	15	489	35	1,885	50	2,374
Commerce (Trade and finance)	45	1,678	76	4,358	121	6,036
Transport communication and storage	16	315	12	910	28	1,225
Community & business services	11	541	62	33,265	73	33.806
Personal & other services	10	67	24	208	34	275
Total	372	12,661	522	116,130	894	128,791

During the year 1981-82, 18 foreign companies as defined in Section 591 of the Companies Act, established places of business in India while 7 companies were reported to have closed down during the year.

After taking into account the newly established branches of foreign companies and those which were closed down during the year, the total number of foreign companies at work in the country during 1981-82 was 311 as compared to 300 in the previous year.

Distribution of Non-Government Companies by Industrial Activity as on 31-3-1982

(Paid-up capital in Rs. million)

Industrial classification	Public		Private		Total	
	No.	Paid-up capital	No.	Paid-up capital	No.	Paid-up capital
Agriculture & allied activities	520	887	1,432	280	1,952	1,167
Mining & quarrying	254	638	874	348	1,128	986
Processing & manufacture of food stuffs, textiles, leather and products thereof	1,535	6,020	6,073	1,692	7,608	7,712
Processing & manufacture of metals & chemicals & products thereof	2,467	13,350	18,232	3,373	20,699	16,723
Processing & manufacture not elsewhere classified	1,111	4,157	7,082	1,159	8,193	5,316
Construction and utilities	281	779	1,988	263	2,269	1,042
Commerce (trade and finance)	2,680	3,225	17,365	2,336	20,045	5,561
Transport, communication and storage	249	600	2,798	420	3,047	1,020
Community and business services	217	256	2,829	260	3,046	516
Personal and other services	216	313	2,592	474	2,808	787
Total	9,530	30,225	61,265	10,605	70,795	40,830

PUBLIC SECTOR

THE Public Sector covers those undertakings which are owned or managed by the Government. These are departmental undertakings like the railways and statutory corporations under which come the Damodar Valley Corpn., financial instts. which cover the Film Finance Corpn., public utility undertakings like transport and electricity, which come under the purview of the Indian Companies Act, etc. Prior to independence private companies were by far a large controller of most of the industrial and commercial undertakings with the exception of the railways. The Govt.'s 1948 resolution on the economic policy projected the ideal of mixed economy where both the private sector and the public sector had each an important role to play in the industrial development of the country. The public sector activates the whole economy by promoting crucials and key sector which, due to heavy investment and low returns does not provide enough incentive to the private sector.

The growth of public sector has been impressive. From a figure of Rs.290 million as on 31st March 1951, the investment stood at Rs. 211,020 million as on 31st March 1981 and increased further to Rs. 247,610 million as on 31st March 1982. The number of enterprises has also gradually increased from 5 to 221 during these 3 decades. The growth rate of capital investment in the public sector during the current year was 17.3 per cent. The maximum investment in the current year was made in the steel group, followed by the chemical fertilisers and pharmaceuticals group. During 1981-82, the turnover of operating enterprises (187) touched the figure of Rs. 364,431.4 million from Rs. 286,348.8 million in 1980-81.

The value of goods produced and services rendered in 1981-82 by these 187 enterprises stood at Rs. 352,700 million as against Rs. 265,590 million by 168 enterprises in 1980-81. However, it should be noted that much of this increase in production has come about due to the periodic revisions in the prices of some of the products and only to a smaller extent from a real increase in quantity produced.

The foreign exchange earned by these enterprises increased by 23.9 per cent to Rs. 27,460 million in 1981-82 from Rs. 22,160 million in 1980-81. It accounted for 35.2 per cent of the country's total export earning. During 1981-82, 107 enterprises earned a pre-tax profit of Rs. 18,860 million and 78 enterprises incurred a loss of Rs. 8,120 million; thus showing a record net pre-tax profit of Rs. 10,740 million. This situation stands favourable when compared with the losses incurred in 1980-81. After making a provision of Rs. 5,900 million towards income-tax the public enterprises made a net profit of Rs. 4,850 million in 1981-82 as against a net loss of Rs. 2,030 million in 1980-81. Since 1977-78 the public sector enterprises were able to come out of the red only in 1981-82.

Companies which have increased their profits with the current year's profits (in Rs. million) as compared to the previous year:

Oil and Natural Gas Commission: 5,744.7-465.7; Central Coalfields Ltd.: 1,176.3-780.6; Indian Oil Corporation Ltd.: 1,140.3-1,081.5; State Trading Corpn. of India Ltd.: 714.5-573.1; Minerals and Metals Trading Corpn. of India Ltd.: 615.3-613.6; Indian Petro Chemical Corpn. Ltd.: 555.3-340.8; Bharat Heavy Electricals Ltd.: 504.8-161.9; Western Coalfields Ltd.: 412.8-223.1; Steel Authority of India Ltd.: 391.1-9.6; Neyveli Lignite Corpn. Ltd.: 355.8-192.7; Bharat Earth Movers Ltd.: 298.8-98.7; Hindustan Aeronautics Ltd.: 296.4-42.2; Bharat Petroleum Corpn Ltd.: 296.1-234.4; International Airport Authority of India: 213.5-148.3; Rashtriya Chemicals and Fertilisers Ltd.: 212.6-185.3; Bharat Electronics Ltd.: 201.2-89.3; Indian Telephone Industries Ltd.: 174.3-19.3; Cochin Refineries Ltd.: 158.7-76.3; Rural Electrification Corpn. Ltd.: 152.9-124.9; Indian Dairy Corpn.: 151.2-98.9; Housing & Urban Development Corpn. Ltd.: 117.4-70.7; Indian Airlines: 115.4-24.8; Cement Corpn. of India Ltd.: 88.2-3.9; Central Warehousing Corporation: 82.6-70.0; Dredging Corpn. of India Ltd.: 78.0-31.9; Metallurgical & Engg Consultants (India) Ltd.: 58.2-56.8; Mazagon Dock Ltd.: 56.3-47.2; Engineers India Ltd.: 54.1-47.8; Indo Burma Petroleum Co. Ltd.: 42.2-30.9; Hindustan Photofilms Mfg. Co. Ltd.: 41.6-36.3; Indian Rare Earths Ltd.: 36.5-21.2; Rail India Technical & Economic Services Ltd.: 34.0-27.0; India Tourism Dev. Corpn. Ltd.: 31.4-19.9; Telecommunications Consultants (India) Ltd.: 28.2-12.0; IISCO Stanton Pipe & Foundry Co. Ltd.: 28.0-1.4; Metal Scrap Indian Road Construction Corpn. Ltd.: 24.2-29; Projects & Equipment Corpn. Ltd.: 23.2-22.7; Indian Railways Constn, Co. Ltd.: 22.5-4.5; Lagan Jute Machinery Co. Ltd.: 19.7-10.6; Modern Bakeries (India) Ltd.: 18.6-4.6; Ferro Scrap Nigam Ltd.: 13.5-13.4; National seeds Corpn. Ltd.: 12.8-3.5; Mica Trading Corpn. of India Ltd.: 10.3-5.7; Uranium Corpn. of India Ltd.; 7.8-4.[illegible], Computer Maintenance Corpn. Ltd.; 6.9-4.5; Bharat Heavy Plates & Vessels Ltd.: 6.0-4.8; Indian Oil Blending Ltd.: 4.7-3.0 Sambhar Salts Ltd.: 4.7-1.7; Central Mine Planning &

TABLE I : PROFITABILITY PROFILE

(Rs. million)

	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82
1. No. of enterprises	1,010	1,140	1,200	1,250	1,490	1,550	1,590	1,690	1,680	1,870
2. Capital employed (net block plus working capital)	47,570	52,710	66,540	90,060	110,570	120,650	139,690	161,820	182,070	218,650
3. Gross margin (surplus before depreciation, interest and tax)	4,897.4	5,924.4	8,639.7	10,138.5	14,903.2	14,891.6	17,658.2	20,546.6	24,008.9	40,102.6
4. Depreciation	2,470.0	2,588.5	3,047.6	3,453.9	4,627.1	5,744.9	6,945.9	8,255.0	9,830.6	13,353.6
5. Gross profit (3 minus 4)	2,427.4	3,335.9	5,592.1	6,684.6	10,276.1	9,146.7	10,712.3	12,291.6	14,178.3	26,749.0
6. Interest	1,620.0	1,849.1	2,467.3	3,628.1	6,068.6	7,551.3	8,861.8	10,040.3	13,991.5	16,007.2
7. Pre-tax profit (5 minus 6) after setting off losses or loss making units	807.4	1,486.8	3,124.8	3,056.5	4,207.5	1,595.4	1,850.5	2,251.3	186.8	10,741.8
8. Percentage of gross margin to capital employed	102.9	112.4	129.8	112.6	134.8	123.4	126.5	127.0	131.9	183.4
9. Percentage of gross profit to capital employed	51.0	63.3	84.0	74.2	92.9	75.8	76.9	76.0	76.9	122.3

TABLE 2 : TOP TEN PROFIT MAKING ENTERPRISES (PROFIT BEFORE TAX)

(Rs. million)

Name of the enterprises	Pre-tax profits	%to total pre-tax profit earned by profit making enterprises
Oil & Natural Gas Commission	5,744.7	30.45
Oil India Ltd.	1,860.4	9.86
Central Coalfields	11,176.3	6.23
Indian Oil Corpn. Ltd.	1,140.3	6.05
State Trading Corpn. of India Ltd.	714.5	3.79
Minerals & Metals Trading Corpn. of India Ltd.	615.3	3.26
National Fertilisers Ltd.	597.5	3.17
Indian Petrochemicals Corpn. Ltd.	555.3	2.94
Bharat Heavy Electricals	504.8	2.68
Western Coalfields Ltd.	412.8	2.19
Total	13,321.9	70.62
Total profit earned by profit making enterprises	18,863.1	100.00

TABLE 3: TOP TEN LOSS MAKING ENTERPRISES

(Rs.million)

Name of the enterprises	Amount of loss 1981-82	% to total loss of loss making enterprises
Fertiliser Corpn. of India	1,300.9	16.02
Eastern Coalfields Ltd.	921.5	11.35
Delhi Transport Corpn.	489.3	6.02
Hindustan Fertiliser Corpn. Ltd.	481.3	5.93
Hindustan Copper Ltd.	425.5	5.23
Bharat Aluminium Co. Ltd.	396.3	4.88
Indian Iron & Steel Co. Ltd.	370.0	4.56
Kudremukh Iron Ore Co. Ltd.	363.4	4.48
Indian Drugs and Pharmaceuticals	274.4	3.38
Bharat Coking Coal Ltd.	237.6	2.92
Total	5,260.2	64.77
Total loss incurred by loss making enterprises	8,121.3	100.00

Design Institute Ltd.: 3.9-2.9; Central Cottage Industries Corpn. of India Ltd.: 1.3-0.4; National Research Dev. Corpn. of India Ltd.: 1.1-0.9; Hooghly Printing Co. Ltd.: 0.5-0.3; Hindustan Prefab Ltd.: 0.4-0.3.

Companies whose profits have declined with current year's profits (in Rs. million) and the previous year's profits respectively:

Hindustan Petroleum Corpn. Ltd.: 303.9-338.5; Madras Fertiliser Ltd.: 82.9-202.3; Hindustan Cables Ltd.: 63.0-73.8; Shipping Corpn. of India Ltd.: 60.1-196.6. Hindustan Organic Chemicals Ltd.: 42.9-63.0; Instrumentation Ltd.: 37.0-38.7; Balmer Lawrie & Co. Ltd.: 20.8-21.0; Hotel Corpn. of India Ltd.: 19.7-21.4; Cashew Corpn. of India Ltd.: 16.4-21.7; Lubrizol India Ltd.: 12.0-49.1; Praga Tools Ltd.: 9.2-12.6; Andaman & Nicobar Islands Forest of Plant Dev. Corpn. Ltd.: 8.9-9.3. H.M.T. (International) Ltd.; 8.4-10.9; Mater & Power Consultancy Services (India) Ltd.: 7.6-3.8; Rajgarh Tea Company Ltd.: 4.6-5.0; Pyrites, Phosphates & Chemicals Ltd.: 4.6-4.9; Goa Shipyards Ltd.: 4.2-5.4; Food Corpn. of India: 4.0-4.7; Basmatia Tea Company Ltd.: 1.4-1.7; Murphylani (Assam) Tea Co. Ltd.: 0.5-0.9; Hindustan Salts Ltd.: 0.4-1.1; Cochin Shipyard Ltd.: 0.2-28.8.

GOVERNMENT OF INDIA UNDERTAKINGS

The public sector has played a vital role in India's mixed economy and its growth has been impressive since independence. This sector covers public utility undertakings which are owned or managed by the Government, and which, because of heavy investment and low returns, do not provide enough incentive to the private sector.

The number of enterprises have increased from five to 221 during the last three decades. The growth rate of capital investment during 1983 was 17.3 per cent, the maximum investment being in the steel group followed by chemical fertilisers and pharmaceuticals group.

The following are the undertakings:

Agricultural Finance Corpn. Ltd., Dhanraj Mahal, Chhatrapati Shivaji Maharaj Marg, Bombay 400039.

Eastern Region Office: Calcutta; Northern Region Office: Lucknow; Southern Region Office: Madras; Branch Offices: Patna, Kota, Shillong, Ahmedabad, Trivandrum and Chandigarh; Project Offices: New Delhi, Bhopal (Temporary).

Functions: The Corporation offers services to World Bank/Food & Agriculture Organisation, Asian Development Bank, International Fund for Agricultural Development, Central and State Governments, commercial banks, institutions and individuals. AFC undertakes promotional activities including publication of a journal 'Financing Agriculture', holding of seminars on industries, participation in rural development etc., training/orientation programmes for bankers, Govt. officers and those involved in financing activities both in India and in the Third World countries, mounting of missions to flood/cyclone affected areas for supporting economic activities, etc.

Chairman: V. M. Bhide; *Mg. Director:* Ghulam Ghouse.

Air India (See chapter on "Civil Aviation").

Air India Charters Ltd. (See chapter on "Civil Aviation").

Alloy Steels Plant, Durgapur 713202, is a subsidiary of Steel Authority of India Ltd.

Andaman and Nicobar Islands Forest & Plantation Devpt. Corpn. Ltd., Port Blair 744102 (Andamans).

Functions: At present the Corporation is engaged in: *(i)* logging, regeneration and forest plantation, *(ii)* commercial plantations and extraction of Red Oil Palm, *(iii)* commercial plantations of rubber and also processing of the same, *(iv)* establishment of wood based industries in Little Andaman and North Andaman islands. The Corporation has also taken up cultivation of spices and aromatic plants etc.

Chairman: M. L. Kampani; *Managing Director:* D. K. Ganguly.

Andrew Yule & Co. Ltd., Yule House, 8, Clive Row, Calcutta 700001.

Artificial Limbs Manufg. Corpn. of India, G. T. Rd., Kanpur 208016, (Dept. of Social Welfare, Min. of Educ. & Social Welfare).

Functions: To mass produce prosthetics, orthotics and rehabilitation aids for the less privileged and physically handicapped.

Chairman: Dr. B. Mukhopadhyaya; *Mg. Director:* Lt.-Col. A. K. Tewari. V.S.M. (Retd.).

Ashoka Hotel, Chanakyapuri, New Delhi 110021. (Five star deluxe hotel.)

No. of rooms 589; no. of beds 1,006. The highest and lowest Charge per day: Rs. 2,000 & Rs. 550. (Presidential Suite for Rs. 4,000 per day.)

General Manager: P. B. Mathur.

Atomic Reactors, Trombay, Bombay 400071. (See chapter on "Atomic Energy").

Balmer Lawrie & Co. Ltd. (Containers Division), P-4/1, Oil Installation Rd., Paharpur, Calcutta 700088.

Bengal Chemicals & Pharmaceuticals Ltd., 6, G. C. Avenue, Calcutta 700012.

Bengal Potteries Ltd., 45, Tangra Rd., Calcutta 700015.

Bharat Aluminium Co. Ltd., Registered Office: Punj House, 18, Nehru Place, New Delhi 110019.

The company is involved in constructing and operating the Korba (Madhya Pradesh) aluminium project and planning for export oriented alumina/aluminium projects based on bauxite deposits in Andhra Pradesh.

Korba Aluminium Project: It consists of a 200,000 tonnes per annum capacity alumina plant, a 100,000 tonnes per annum capacity smelter for production of aluminium metal and facilities for manufacture of aluminium semis. The project has technical assistance from Chemokomplex of Hungary up to the alumina stage and from Messrs. Tsvetmetpromexport of the U.S.S.R. for the smelter and fabrication facilities.

Chairman-cum-Mg. Director: I. M. Aga.

Bharat Brakes & Valves Ltd., 22, Gobra Rd., Calcutta 700014

Functions: Design, engg. & turnkey execution of slurry handling, vacuum/air braking system, fuel oil & lub oil system, and manufacturers of industrial valves, pumps, etc.

Bharat Dynamics Ltd., Kanchanbagh P.O., Hyderabad 500028.

The company was established in July 1970 to manufacture sophisticated guided missiles and light precision mechanical and electronic equipment.

Mg. Director: Z. P. Marshall.

Bharat Earth Movers Ltd., Unity Bldg., J. C. Rd., Bangalore 560002.

BEML was set up in 1964 under the Ministry of Defence with the transfer of HAL's Railcoach Division. In 1967 the Earth Mover Division commenced production at Kolar Gold Fields.

The railcoach factory at Bangalore manufactures, besides heavy duty transportation trailers, different models of 2nd class broad-gauge Integral Coaches, thus meeting about 25 per cent needs of the Indian Railways. The earth mover factory manufactures 18 different types of heavy earth moving equipment like dozers, scrapers, graders, shovels, loaders and dumpers and now hydraulic excavators. BEML holds a dominant position in the earth moving industry in India. BEML's sales turnover during 1982-83 touched the all-time high of Rs. 335 crores.

Chairman & Mg. Director: Maj. Gen. S. N. Bhaskar.

Bharat Electronics Ltd., Regd. Office: Trade Centre, 29/4, Race Course Rd., Bangalore 560001.

Factories: P.O. Jalahalli, Bangalore 560013; Bharat Nagar P.O., Ghaziabad 201008; 14, Ramnagar Colony, NDA Rd., Pashan, Pune 411021; Ravindranath Tagore Road, Post Box No. 26, Machilipatnam 521001.

Regional Offices: Chandralok, 2nd Floor, 36, Janpath, New Delhi 110001; Arcadia, 11th Floor, Office No. 5 & 6, Plot No. 195, Nariman Point, Bombay 400021; Block A2/A3/A4, 5th Floor, Chatterji International Centre, 33A, Jawaharlal Nehru Road, Calcutta 700071; SIET Building, 312, Mount Road, Madras 600018.

The Bangalore unit manufactures: *(i)* Electronic Equipment: Communication equipment in the HF, VHF, UHF and Microwave ranges, high power HF, SSB and ISB transmitters, high stability communication receivers, medium wave broadcast transmitters upto 100 KW output, television transmitters and studio equipment, fire control radars, functional radars of various types for naval ships, wind finding, storm and cyclone warning radars, gun control equipment for tanks, 3 KW FM broadcasting transmitters, mini computers and 4 GHz microwave radio relay system. *(ii)* Components: Receiving and transmitting tubes, X-Ray tubes, TV picture tubes, magnetrons, germanium and silicon transistors and diodes, hybrid microcircuits, integrated circuits, ceramic and vacuum capacitors, quartz crystals, crystal filters, liquid crystal displays, plasma displays, solar cells, transformers and coils and printed circuit boards.

The Ghaziabad unit manufactures: 3-D static and mobile radars, secondary surveillance radars, troposcatter and line of sight microwave equipment, and VHF transreceivers. The Pune unit manufactures image converter tubes and magnesium manganese dioxide batteries.

Chairman & Mg. Director: N. L. Krishnan.

Bharat Gold Mines Ltd., Regd. Office: Suvarna Bhavan, Oorgaum (KGF) 563120, Karnataka.

This public sector enterprise has taken over from April 1, 1972 the assets and liabilities of the Kolar Gold Mining Undertakings.

It is the principal gold producing enterprise. The gold production during 1982-83 was 1,370 kgs. worth Rs. 216 million.

Chairman-cum-Mg. Director: P. D. Gupta.

Bharat Heavy Electricals Ltd., Regd. Office: 18-20, K. Gandhi Marg, New Delhi 110001.

The company has under it the following seven manufacturing units:—(1) Two plants in Hardwar; (2) Hyderabad; (3) Tiruchirapalli; (4) Bhopal; (5) Jhansi and (6) Bangalore.

BHEL offers a comprehensive range of equipment and services for thermal, hydro electric & nuclear power generation, transmission and distribution.

The production of equipment during 1981-82 was worth Rs. 2,018.2 million.

Chairman & Mg. Director: K. L. Puri.

Bharat Heavy Plate and Vessels Ltd., B. H. P. V., P.O. Visakhapatnam 530012, Andhra Pradesh.

The factory produces sophisticated equipment required by the process industry. The equipment manufactured include high pressure heat exchangers, multilayer high pressure vessels, columns, storage spheres, air & gas separation plants, cryogenic storage vessels and transportation tanks, continuous pulp digester plants, evaporators, water feed deaerators, industrial boilers, titanium anodes etc.

Chairman & Mg. Director: M. R. Naidu.

Bharat Leather Corporation Ltd., Hemkunt House, 10th Floor, 6, Rajendra Place, New Delhi 110008. *Regd. Office:* B-113, Sector 18, NOIDA, Ghaziabad Dist. (U.P.).

Chairman: S. L. Atal; *Mg. Director:* S. H. Jadhav.

Bharat Ophthalmic Glass Ltd., Lenin Sarani, Durgapur 713210, West Bengal.

Manufactures ophthalmic blanks for spectacle lenses and optical glasses required for Defence and other optical instruments and coloured glasses.

Mg. Director: P. K. Roy.

Bharat Petroleum Corpn. Ltd. (See Chapter on "Petroleum Industry" under Bharat Refineries Ltd.).

Bharat Process & Mechanical Engineers Ltd., Chartered Bank Buildings, Calcutta 700001.

Bharat Pumps & Compressors Ltd., Regd. Office: Naini, Allahabad 211010.

Established in 1970 with objective of import substitution, the company is producing sophisticated/heavy duty reciprocating compressors, centrifugal and reciprocating pumps, high pressure industrial, medical and low pressure welded gas cylinders.

Chairman & Mg. Director: K. L. Puri.

Bharat Wagon & Engg. Co. Ltd., 66, Patliputra Colony, Patna 800013.

Bhilai Steel Plant, Bhilai 490001.

This is the biggest operating steel plant in India with an annual capacity of 2.5 million tonnes of ingot steel currently under expansion to 4 million tonnes. See also "Steel Authority of India Ltd."

Mg. Director: N. K. Mitra.

Biecco Lawrie Ltd., 6, Mayurbhanj Rd., Calcutta 700023.

(Works: P54, Hide Rd. Extn., Calcutta 700027; 6, Mayurbhanj Rd., Calcutta 700023).

Functions: Manufactures electric motors upto 250 H.P. for crane duty and industrial applications; bulk oil LT & HT switchgear upto 11 KV 350 MVA; repair service of electrical rotating machines upto 10 MW at 11 KV.

Mg. Director: A. K. Sircar.

Bihar Industrial and Technical Consultancy Organisation Ltd.

(A subsidiary of Industrial Development Bank of India), Udyog Bhawan, East Gandhi Maidan, Patna 800004.

To identify industrial potential through surveys or otherwise; identify suitable entrepreneurs; prepare project profiles/feasibility reports; assist in location/transfer of suitable indigenous & foreign know-how; arrangement of financial tie-ups; turn-key implementation of projects; monitoring of on-going and sick industrial projects; conduct training programmes, etc., and to act as industrial, management and financial consultants.

Chief Executive: Shri S. K. Gupta.

Bird & Co. Ltd., Chartered Bank Bldgs., Calcutta 700001.

Bokaro Steel Plant, Bokaro Steel City 827011. Dhanbad Dist., Bihar (A subsidiary of Steel Authority of India).

Bongaigaon Petro-Chemicals Ltd., Bongaigaon Dist., Goalpara, Assam.

Braithwaite & Co. Ltd., 5, Hide Rd., Calcutta 700043.

Bridge & Roof Co. (India) Ltd., 427/1, Grand Trunk Rd., Howrah 711101. *(Regd. Office:* 21, Netaji Subhas Road, Calcutta 700001.)

Functions: Complete erection and civil engg. construction of refineries, fertilizer plants, steel plants, power plants, storage tanks etc., fabrication of steel structures, fabrication and erection of steel bridges, design and construction of R.C.C./prestressed bridges and erection of pipelines.

Chairman: Dr. S. Varadarajan; *Mg. Director:* Dr. P. K. Chaudhuri.

Burn Standard Co. Ltd., 10-C, Hungerford St., Calcutta 700017.

Functions: The company has two engineering units at Howrah and Burnpur respectively and seven refractory units in different parts of the country. The company specialises in the manufacture of railway rolling stock & components, railway track materials, special crossings, steel castings, SG iron castings, structural steel work, pressed steel tanks, technological structures, springs, forgings, stampings & pressings, mining accessories & equipment, turnkey coal handling plant, transfer cars, tram cars, turnkey ash handling plant, special type of wagon for carrying powdery material and rapid bottom discharge wagons.

The seven refractory units manufacture basic refractories (magnesite, chrome, mag chrome, chrome mag bricks), calcined magnesite & cupels. silica refractories, insulating bricks, chemical stoneware, stoneware pipes & fittings, fireclay refractories.

Chairman & Mg. Director: Prasanta Chandra Sen.

Calcutta Tramways Co. Ltd., 12, R. N. Mukherjee Rd., Calcutta 700001.

Cashew Corpn. of India Ltd., P. B. 1261, M. Gandhi Rd., Cochin 682011. (Regd. Office: 'Chandralok', 36, Janpath, New Delhi 110001).

Functions: A wholly owned subsidiary of STC. Handles import and distribution of raw cashewnuts to the export-oriented cashew processing industry. Also supplements industry's efforts in increasing export of cashew kernels with emphasis on diversification of markets.

(Also see Chapter on 'Cashew Industry').

Chairman: K. N. Venkatasubramaniam.

Cement Corporation of India Ltd., Shakuntala Apartments, 59, Nehru Place, New Delhi 110019.

Functions: To set up cement factories in various parts of the country and to survey and prospect for limestone deposits in the country. The Corporation has nine cement plants of annual installed capacity of 2.34 million tonnes at Mandhar, Madhya Pradesh (0.38 M.T.), Kurkunta, Karnataka (0.20 M.T.), Bokajan, Assam (0.20 M.T.), Rajban, Himachal Pradesh (0.20 M.T.), Neemuch, Madhya Pradesh (0.40 M.T.), Akaltara, Madhya Pradesh (0.40 M.T.), Yerraguntla, Andhra Pradesh (0.40 M.T.), Charkhi Dadri, Haryana (0.16 M.T.) and Adilabad (0.4 M.T.). Nemuch and Yerraguntla are proposed to be expanded by 1.1 million tonnes each. The work at Tandur, Andhra Pradesh (1 M.T.) is also in progress. CCI also offers consultancy services.

(Also see Chapter on 'Cement Industry').

Chairman & Mg. Director: A. P. Maheshwary.

Central Coalfields Ltd., Darbhanga House, Ranchi 834001.

Central Coalfields Ltd., a subsidiary of Coal India Ltd., was set up on November 1 1975. It owns 64 collieries, 4 coal washeries, one coke-oven and by-product plant, one beehive coke plant and one Central Workshop spread over the states of Bihar, Orissa, Madhya Pradesh and Uttar Pradesh. The manpower of CCL at present is 117,000. The production of CCL was 33.11 million tonnes in 1982-83. CCL earned a net profit of Rs. 780.6 million in 1980-81, Rs. 1,176 million in 1981-82 and Rs. 1,265 million in 1982-83. *Chairman-cum-Mg. Director:* Rajendra Singh.

Central Cottage Ind. Corpn. of India Ltd., Janpath, New Delhi 110012.

Central Electronics Limited, Factory: 4, Ind. Estate, Sahibabad 201010, U.P.

Manufactures professional ferrites for television, communication and power electronic applications viz. potcores, RM cores, E&I cores, UU&UI cores, piezoelements for ultrasonic transducers and gaslighters, cartridges, high purity alumina ceramics for power rectifier housing, substrates for cement potentiometers and feed-thrus for vacuum coating units, combustion boats, crucibles etc. Solar photovoltaic cells, solar panels for power supplies, light emitting diodes and displays for panel indicators, digital instruments, calculators and clocks etc., nitrogen laser for UV radiation, holographic gratings for instruments, high intensity monochromators, photon counters, automatic slide projectors, synchronised projection systems for audio visual aids etc.

CEL is India's seventh public sector unit manufacturing sophisticated electronic components and systems using purely indigenous know-how and technology.

Mg. Director: U. Venkatswarlu.

Central Inland Water Transport Corpn. Ltd., Regd. Office: 4, Fairlie Place, Calcutta 700001.

Branches: Fancy Bazar, M. Gandhi Road, Gauhati 781001; Dhubri Steamer Ghat, P.O. Dhubri, Goalpara Dist. 783301; Karimganj Steamer Ghat, Karimganj, Cachar 788710.

Functions: (i) Ship-building, ship repairing and general engineering; *(ii)* River transportation of goods from Calcutta to Pandu (Gauhati) and Karimganj in Assam; Calcutta to Bangladesh and Calcutta to Farakka and Haldia; *(iii)* River conservancy and dredging.

Chairman & Mg. Director: S. K. Ghosal, I.A.S.

Central Institute of Plastic Engg. & Tools (Min. of Petroleum), Guindy, Madras 600032.

A Government of India Society in the Department of Petroleum conducts training courses in various disciplines of Plastics Engineering. Conducts Short-term courses on Quality Control, Design and other refresher courses for men in Industry. Offers consultancy services to the small-scale industry and undertakes physical testing and assessment of plastics materials.

Chairman: V. R. Deenadayalu.

Central Mine Planning & Design Institute Ltd., Gondwana Place, Ranchi 834008.

Functions: To render mine planning, designing, consultancy, library and documentation services, prepare projects and to carry out R & D work for coal, lignite, rock phosphate and other minerals for mining, handling, beneficiation and utilisation of such minerals. Also offer consultancy on construction, project management and training of personnel.

Chairman & Mg. Director: R. G. Mahendru.

Central Warehousing Corporation, "Warehousing Bhawan", 4/1, Siri Institutional Area, Hauz Khas, New Delhi 110016.

Functions: To build and run warehouses for the storage of agricultural produce and notified commodities; to arrange transport of commodities to and from warehouses; to provide disinfestation services; to act as agent of Government, Public Sector Organisations, Cooperatives and Registered Companies for the purpose of purchase, sale, storage and distribution of agricultural produce, inputs and notified commodities, etc.

At the end of June, 1983 Central Warehousing Corpn. was running 368 warehouses with a total capacity of over 4.6 million tonnes, including its own modern warehouses of 2.8 million tonnes.

Mg. Director: M. K. Garg.

Chittaranjan Locomotive Works, Head Office & Works: Chittaranjan 713331, Burdwan Dist., W. Bengal; Calcutta Office: 4, Chittaranjan Avenue, Calcutta 700013.

Chittaranjan Locomotive Works was set up in 1950 for the production of steam locomotives. With the rolling out of the 60th YG class metre gauge steam locomotive in February 1972 the Works stopped the production of steam locomotives and has switched over completely to the manufacture of electric and diesel locomotives. The Works had, upto the end of March 1982, produced 3,705 locomotives—steam 2,351, electric (both AC and DC) 878, and diesel 476.

At present Chittaranjan is engaged in the manufacture of AC mixed traffic electric locomotives, diesel shunting-cum-shuttle locomotives and WAPI AC electric locomotive for hauling Rajdhani Express and diesel electric shunters.

Coal India Limited, Coal Bhawan, 10, Netaji Subhas Road, Calcutta 700001.

Subsidiary Companies: **Eastern Coalfields Ltd.,** Sanctoria, P.O. Dishergarh 718333, Dist. Burdwan, West Bengal; **Central Coalfields Ltd.,** Darbhanga House, Ranchi 834001, Bihar; **Western coalfields Ltd.,** Coal Estate, Civil Lines, Nagpur 440001, Maharashtra; **Bharat Coking Coal Ltd.,** Koyla Bhawan, Koyla Nagar, Dhanbad, Bihar; **Central Mine Planning & Design Institute Ltd.,** Gondwana Place, Kanke Road, Ranchi 834008.

Regional Offices: Navdeep Building (2nd Floor), Ashram Road, Ahmedabad 380014; Geetha Mansion (4th Floor), 40, Kempe Gowda Road, Bangalore 560009; 32, Shamla Road, Civil Lines, Bhopal 462002; 1, Ganga Nagar Unit-VI, Bhubaneswar 751009; Kumud Niwas, Ramdas Road, Tikrapaara, Bilaspur 495004; Hotel Waldorf (2nd Floor), 16, Arthur Bunder Road, Colaba, Bombay 400005; 10, Camac Street (10th Floor), Calcutta 700017; SCO 192-193, (2nd Floor), Sector 17-C, Chandigarh 160011; 407/408, Surya Kiran Building, 19, Kasturba Gandhi Marg, New Delhi 110001; Srinath Complex (1st Floor), Sorojini Devi Road, Secunderabad 500003; K-11(B), Ashok Marg, 'C'-Scheme, Jaipur 302001; 113/131-A(I), Swaroop Nagar, Kanpur 280002; Allahabad Bank Building (2nd Floor), New Block Hazratganj, Lucknow 226001; Kannammai Building (5th Floor), 611/612, Mount Road, Madras 600006; 220, Dak Bungalow Road, 1st Floor, Patna 800001; Burdwan Road, Mahananda Para, Siliguri, Darjeeling; North Eastern Coalfield, P. O. Margheritta 786181.

Cochin Refineries Ltd., P. Bag 2, Ambalamugal 682302, Ernakulam Dist. (See Chapter on "Petroleum Industry").

Cochin Shipyard Ltd., P. Bag 1653, Cochin 682015.

Ship building, ship repairs and allied activities. It went into production on February 11, 1976. The first ship 75,000 DWT bulk carrier was launched in January 1980.

Chairman & Mg. Director: D. Jayachandran; *Gen. Manager:* P. U. Cariappa.

Computer Maintenance Corpn. Ltd., Regd. Office: 115, Sarojini Devi Rd., Secunderabad 500003; Corporate Headquarters: The Arcade, World Trade Centre, Cuffe Parade, Bombay 400005.

Function: To provide one point total support services' to computer users.

Chairman: A. Krishnaswami; *Mg. Director:* P. D. Jain.

Cotton Corpn. of India Ltd., Air India Bldg., 12th Fl., Nariman Point, Bombay 400021.

Functions: Serves as an agency for purchase, sale and equitable distribution of domestic cotton and cotton staple fibre imported from abroad. It exports staple and Bengal Desi cotton.

Chairman-cum-Mg. Director: N. S. Kulkarni.

(Also see chapter on 'Cotton and Cotton Textiles').

Deposit Insurance and Credit Guarantee Corpn., *Head Office:* New India Centre, 17, Cooperage Road, Bombay 400039.

Functions: The Corporation performs twin functions of giving protection to small depositors and providing guarantee cover to credit facilities extended to certain categories of small borrowers belonging to the weaker sections of society.

The Corporation provides insurance to the extent of Rs. 30,000 to a depositor in respect of all deposits held by him in an insured bank in the same right and capacity.

Every commercial bank functioning in India and every eligible Co-op. bank functioning in the States of Andhra Pradesh, Gujarat, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal and the Union Territories of Delhi, Pondicherry, Goa, Daman and Diu to which the Deposit Insurance Scheme has so far been extended, is registered as an insured bank with the Corporation and all its depositors get the protection afforded by the Corporation.

The total number of insured banks at the end of 1982 was 1,683.

The Corporation also provides guarantee cover to credit facilities granted by (a) commercial banks to small transport operators, retail traders, professional and self-employed persons, small business enterprises and farmers and agriculturists, (b) by State Financial Corporations to small transport operators and small business enterprises and (c) by commercial banks and certain State and Central Co-operative banks to service co-operative societies engaged in providing to its members facilities like the securing of orders, the purchase of raw materials, the display and marketing of finished goods or any other similar assistance in connection with the manufacture, preservation or processing of goods and sale or disposal of goods so manufactured, preserved or processed, (d) by commercial banks (including regional rural banks), co-operative banks. State Financial Corporations and other state development agencies to small scale industrial units and (e) by select primary agricultural credit societies, primary land development banks/ branches of state land development banks for agricultural and allied activities.

The Head Office of the Corporation is at Bombay with four branches one each at Bombay, Calcutta, Madras and New Delhi.

The Corporation has a capital of Rs. 150 million entirely held by the Reserve Bank. The Deposit Insurance Fund and Credit Guarantee Fund amounted to Rs. 1,540.4 million and Rs. 887.6 million respectively as on 31st December 1982.

Chairman: Dr. M. V. Hate.

Diesel Locomotive Works, Varanasi 221004, Uttar Pradesh.

This is one of the production units of the Indian Railways. Set up in 1961 in technical collaboration with M/S. ALCO Products INC, USA, DLW has matured into Asia's leading designer and manufacturer of diesel-engines/locomotives with a product range comprising of (a) 2600 HP BG All purposes Heavy Duty Locomotives Type WDM2, (b) 1400 HP MG Mixed Traffic Locomotives Type YDM-4, (c) 1400 HP BG Shunting Locomotives Type WDS-6 and (d) 1400 HP BG Branch Line Locomotives Type WDM-6; and also 1750 KW Mobile and Stationary Diesel Generating Sets.

Till July 1983, 151 WDM2, 290 YDM4, 1312 WDS6 and 2 WDM6 have been produced with a power potential of about 4 million H.P. In addition rehabilitation of the imported 1950 HP Type WDMI locomotives, and old engine blocks are also being undertaken in these works.

General Manager: Dilraj Singh.

Dredging Corpn. of India Ltd., *Registered Office:* Room No. 528, Transport Bhawan, 1, Parliament St., New Delhi 110001. *Head Office:* Jeevan Prakash, Visakhapatnam 530004.

Chairman & Mg. Director: Capt. S. K. Somayajulu.

Educational Consultants India Ltd., A-1/111, Safdarjang Enclave, New Delhi 110029.

Functions: Set up by the Govt. of India under the Ministry of Education to offer domestic & global consultancy in the fields of general education, technical & vocational education, agricultural education, planning, technology transfer delivery systems, management and professional education, for setting up universtities and educational insttns. and R&D labs. in India & the developing countries

Electronics Corpn. of India Ltd., Ind. Development Area, Cherlapalli, Hyderabad 500762.

Functions: Mainly consists of five groups: *(a)* Antenna Systems Group; *(b)* Components Group; *(c)* Computers Group; *(d)* Control Systems Group; *(e)* Instruments Group; and *(f)* Communication Group.

Chairman & Mg. Director: S. R. Vijayakar.

Electronics Trade & Technology Development Corpn. Ltd., 15/48, Malcha Marg, New Delhi 110021.

Regional Offices: No. 103, Gold Colony, 6th Cross, Railway Parallel Rd., Kumara Park, West Bangalore 560020; Air India Building (8th Floor), Nariman Point, Bombay 400021; C/o West Bengal Electronics Industrial Development Corporation Ltd., 225-E, Acharya Jagdish Chandra Bose Rd., Calcutta 700020; Suriya Mansion, III Floor, 621, Mount Road, Cathedral PO, Madras 600006; 1-7-241/11-B & C, Sarojini Devi Rd., Secunderabad 500003 (A.P.).

Foreign Offices: ETTDC LIMITED, C/o Embassy of India, Ui, Rajtana, 15, Mokotow WARSAW (POLAND); ETTDC LIMITED, C/o Embassy of India, 4, Obukha ULISTA MOSCOW (USSR); ETTDC LIMITED, 3001, Redhill Avenue Esplanade 1, Suite 219, Costa Mesa, California 92626, USA.

Chairman-cum-Mg. Director, P. K. Sandell.

Employees' State Insurance Corpn., Hqrs. Office: ESIC Building, Kotla Road, New Delhi 110002.

The Scheme applies to power-using factories employing 10 or more persons and non-power using factories employing 20 or more workers, shops, theatres, cinemas including preview theatres, hotels, restaurants, motor transport undertakings and newspaper establishments employing 20 or more persons. All employees in receipt of remuneration not exceeding Rs. 1,000 per month working in a Factory/Establishment to which the Act applies are covered by the Act.

The scheme provides for medical care for insured persons and their families and cash benefits viz. sickness, maternity, disablement, dependants and funeral expenses. The Scheme is in force in all the States except Jammu and Kashmir, Sikkim, Manipur, Nagaland and Tripura

(Also see chapter on 'Labour').

Chairman: B. G. Deshmukh; *Dir. General:* Har Mander Singh.

Engineering Projects (India) Ltd., Kailash Bldg., K. Gandhi Marg, New Delhi 110001.

Functions under Ministry of Industry for executing industrial and civil engineering projects on turnkey basis in India and abroad. The company is presently engaged in implementation of 47 turnkey projects of the value of Rs. 7,749 million out of which 13 orders of the value of Rs. 5,281 million are in the Middle East and Gulf countries.

Chairman & Mg. Director: D. V. Kapur.

Engineers India Ltd., PTI Bldg., 4, Sansad Marg, New Delhi 110001.

The company provides complete consultancy services such as techno-economic studies, process design, engineering, procurement, construction supervision, etc. for projects in the fields of petroleum refining, pipelines, petrochemical, chemical, fertilizer, synthetic fibre, non-ferrous metallurgy, refractories and allied fields. Also undertakes design of heat and mass transfer equipment, engineering of ports and harbours, off-shore structures, environmental engineering, systems engineering, computer services and specialist maintenance services.

Chairman & Mg. Director: Vacant.

Export Credit & Guarantee Corpn. Ltd., Express Towers, 10th Fl., Nariman Point, Bombay 400021.

Functions: To promote the growth of India's export trade by providing insurance facilities to Indian exporters, covering certain commercial and political risks involved in exports on credit terms and furnishing guarantees to banks enabling the exporters to get advances from the banks on liberal terms.

Chairman & Mg. Director: V. Prabhakar, I.A.S.; *Gen. Manager:* K. G. Krishna.

Ferro Scrap Nigam Ltd., Post Box 73, Jamshedpur 831001.

Functions: The Corporation is engaged in recovery of scrap from steel melting shop slag and debris in steel plants at TISCO, Jamshedpur, IISCO, Burnpur, Rourkela Steel Plant, Rourkela & Bhilai Steel Plant, Bhilai. The Company is rendering specialised service to the steel plants in processing slag and debris from steel melting shops and recovering iron & steel scrap for remelting in their furnaces. It also proposes to take similar work in other steel plants and also in some foreign countries in future.

Mg. Director: M. N. Khanna.

Fertilisers And Chemicals Travancore Ltd., Udyogamandal 683501, Kerala.

The first factory in India to manufacture chemical fertilisers on a commercial basis. It consists of two production units: One at Udyogamandal and the other at Ambalamedu; a design and consultancy division called FACT Engg. and Design Organisation (FEDO); a fabrication and erection division called FACT Engg. Works (FEW); and a Marketing Division. The Udyogamandal Division produces ammonium sulphate, superphosphate, ammonium phosphate 16:20 and 20:20, ammonium chloride and synthetic cryolite. The Cochin Division produces Urea and NPK complex fertilisers. FEDO is equipped to take up turnkey contracts for the design and engg. of chemical and fertiliser plants, hydrometallurgical processing and pharmaceutical plant, etc. FEW caters to the specialised needs of the chemical and fertiliser industry in the field of fabrication of plant and equipment as well as structural and erection works.

Chairman & Mg. Director: N. B. Chandran.

Fertilizer Corporation of India Ltd., Madhuban, 55, Nehru Place, New Delhi-110019.

Production Units: Sindri, Gorakhpur, Talcher, Ramagundam. *Project:* Korba; *Fertilizer and Industrial Products:* Urea, Triple Super Phosphate and Ammonium Sulphate, Argon, Guanidine Nitrate, Prilled Ammonium Nitrate, Nitric Acid, Sulphuric Acid, etc.

Chairman & Mg. Director: P. L. Kukreja; *Director (Finance):* D. K. Jain; *General Manager (Marketing):* N. M. Vachhrajani; *General Manager (Technical):* J. S. Bhalla; *General Manager (Personnel & Administration):* B. N. Kapoor; *General Managers:* M. J. Sharma (Sindri); S. K. Malik (Gorakhpur); T. V. Doraswamy (Talcher); K. C. Madan (Ramagundam); *General Project Manager:* K. P. Tiwari (Korba).

Food Corpn. of India, 16-20, Barakhamba Lane, New Delhi 110001.

Functions: To provide the farmer an assured price for his produce, supply quality foodgrains to the consumer at reasonable prices.

Manned by over 73,000 people with 135 district offices, 2,044 storage points, 130 quality testing laboratories, the Food Corporation of India is the single largest foodgrains distributor in the world.

Chairman: S. S. Sisodia; *Mg. Director:* Vacant.

Garden Reach Shipbuilders & Engineers Ltd., 43/46, Garden Reach Rd., Calcutta 700024.

The company has its main workshops at Garden Reach Road, and branch units at Baranagore, Taratala Road, Netaji Subhas Dock (Calcutta Port Trust); 61, Garden Reach Road, Belur and Sinthee in West Bengal, at Nagpur in Maharashtra and a marine diesel engine plant at Ranchi, Bihar.

The company has 3 slipways and 2 building docks. It is one of the major ship-building and ship-repairing yards in India and is fully equipped to undertake all types of marine repairs of sea-going vessels as well as inland and harbour crafts. It builds all types of inland and harbour crafts and the smaller coastal vessels, and has specialised in the building of dredgers, tugs, barges and has started building ocean-going vessels upto 26,000 DWT with its own design. This is a major effort for the first time in the country to develop the basic design of an ocean-going ship.

The company also manufactures electrical overhead travelling cranes, deepwell turbine submersible pumps, steel plant equipment, conveyors, diesel road rollers, fibreglass life boats, pressure vessels, heat exchangers and deck machinery items like cargo winches, windlasses etc. and portable steel bridges.

They are also manufacturing marine diesel engines of three types at Ranchi and Calcutta with power range varying from 225 BHP to 20,000 BHP. They have M.A.N. service-base at Calcutta and Bombay.

Chairman & Mg. Director: Commodore A. K. Sarkar.

General Insurance Corpn. of India Ltd., Ind. Assurance Bldg., Churchgate, Bombay 400020.

(See Govt. of India Personnel).

Goa Shipyard Ltd., Vasco-da-Gama 403802, Goa.

Undertakes construction of vessels upto 1,000 tonnes and 70 metres length like fishing vessels, warships, self-propelled ore barges, tugs, dredgers etc.

Also undertake repairs to such crafts and ships visiting the port. Specialists in hull marine engineering, electrical radio and radar repair work.

Chairman: Vice-Admiral N. P. Datta, PVSM, AVSM; *Mg. Director:* Rear-Admiral L. R. Mehta, AVSM.

Govt. Opium & Alkaloid Works Undertaking, Neemuch 458441, Madhya Pradesh. Exports opium to various parts of the world and the Alkaloid Works is engaged in the manufacture of five main alkaloids of opium viz. morphine, codeine, narcotine, papaverine and thebaine and their finished salts, which are widely used for pharmaceutical purposes. A 'Research and Development' Wing has been set up in the Alkaloid Works to undertake research work in the field of opium and its alkaloids.

Gen. Manager: T. R. S. Krishnan; *Chief Controller of Factories:* M. C. Sharma.

Handicrafts & Handlooms Exports Corpn. of India Ltd., Lok Kalyan Bhavan, 11A, Rouse Ave. Lane, New Delhi 110001.

Functions: It undertakes export of handicrafts and handloom goods, with the main object of introducing new items and exploring new markets.

The corpn. has offices in New York, Paris and Tokyo. It has a carpets warehouse in Hamburg, a branch office in Madras, and regional offices in Bombay, Calcutta, Ludhiana, Bhadohi and Srinagar.

Chairman & Mg. Director: D. Aurora.

Heavy Engineering Corpn. Ltd., Administrative Building Plant, Plaza Rd., P.O. Dhurwa, Ranchi 834004, Bihar.

The Corporation has established the following projects.

Heavy Machine Building Plant, Ranchi: (Collaboration with U.S.S.R.). The plant has a production capacity of 80,000 tonnes of machinery items for steel plants and heavy engineering industries and 25,000 tonnes of steel structural items per year. *Foundry Forge Plant*, Ranchi: (Collaboration with Czechoslovakia). This plant has the following production capacity per year from its main production shops: Grey Iron Foundry (shaped castings) 33,345 tonnes; Steel Foundry (shaped castings) 40,182 tonnes; Non-ferrous Foundry (castings) 700 tonnes; Forgings 50,000 tonnes; Grey Iron Steel and Forged Rolls 21,310 tonnes. *Heavy Machine Tools Plant*, Ranchi: (Collaboration with Czechoslovakia). This plant has an annual production capacity of 278 diverse items of heavy machine tools, weighing 10,000 tonnes approximately. The plant has gone into production of items like radial drilling machines, central lathes, double column planing machines etc.

Chairman-cum-Mg. Director: S. R. Jain.

Heavy Vehicles Factory, Avadi, Madras 600054.

The factory is an integrated unit for the manufacture of components and fabrication and assembly of the Vijayanta Tank and its modified versions. The first 'Vijayanta' medium tank produced in this factory rolled out on Dec. 29, 1965 as scheduled and since then, regular production of tanks has been established. The factory has also established production of armoured recovery vehicles required for the Army.

The planning of the factory has been done in a manner that manufacturing capacity is available not only for the manufacture of tracked vehicles but also for other items of heavy engineering required for military as well as civilian purposes.

General Manager: J. C. Marwaha, I.O.F.S.

Hindustan Aeronautics Ltd., Indian Express Building, Dr. Ambedkar Veedhi, Bangalore 560001.

The Hindustan Aeronautics Limited, came into being on 1st October 1964 by the amalgamation of Hindustan Aircraft Ltd. of Bangalore with Aeronautics India Ltd. It has three Complexes viz. *Bangalore Complex* comprising of six units, *MiG Complex* comprising of Nasik and Koraput divisions and *Accessories Complex* comprising of Hyderabad, Korwa and Lucknow divisions besides a separate unit at Kanpur.

It is currently manufacturing: *(a)* the Supersonic interceptor *Mig Variants; (b)* the Jet fighter Ajeet; *(c)* the Jet trainer Kiran MK II (designed and developed by HAL); *(d)* the Alouette III (Chetak) & SA-315 *Cheetah* Helicopters; *(e)* the transport aircraft HS-748; *(f)* several types of aero-engines; *(g)* several items of airborne electronic equipment and *(h)* gliders.

Work on the manufacture of a modified version of the MiG aircraft under licence is progressing. The company has also successfully designed, developed and test flown HPT-32 piston engined trainer aircraft which will go into production shortly.

HAL also undertakes the overhaul of aircraft, aeroengines and allied equipment.

Manufacture of Jaguar Aircraft with the collaboration of British Aerospace is progressing.

Chairman: Air Marshal L. M. Katre; *Director (Corporate Planning):* G. Narasimhan; *Director (Finance):* C. V. Nagendra; *Addl. Director (Personnel & Admn.):* K. P. Rabindranathan; *Mg.*

Director (Design and Development): R. Varadarajan; *Mg. Director (Accessories):* Wg. Cdr. H. K. Singh (Retd.); *Mg. Director (MiG Complex):* Wg. Cdr. B. S. Balooja; *Mg. Director (Bangalore Complex):* S. C. Keshu.

Hindustan Antibiotics Ltd., Pimpri, Pune 411018, Maharashtra.

Set up in 1954 with WHO/UNICEF assistance—First drug manufacturing unit in Public Sector in India.

Pioneer in the manufacture of Penicillin, Streptomycin, Ampicillin and now Gentamicin, it has to its credit original discoveries, viz. "Hamycin" (antifungal antibiotic), "Aureofungin" (fungicide) and now "Nancy-kit" for early, safe and reliable detection of pregnancy. Apart from manufacture and marketing of bulk drugs and formulations for human use, the company is engaged in agricultural and veterinary products as well.

The production capacity of Penicillin has doubled from 105 to 200 m.m.u. and Streptomycin from 90 to 170 TPA. Gentamicin plants of 1 tonne capacity and Ampicillin from 5 to 35 TPA has already been commissioned. It has also set up Joint Sector Formulation Units along with State Governments at Nagpur, Goa and Bangalore. Of these, the Nagpur Unit is already in production

Drugs worth Rs. 2.01 million were exported during 1982-83.

Mg. Director: Y. H. Gharpure.

Hindustan Cables Ltd., P. O. Hindustan Cables, Hyderabad 500051, Andhra Pradesh.

The company produces paper insulated underground telephone cables, polyethylene insulated jelly filled telephone cables and various other types of communication cables.

Chairman & Mg. Director: S. K. Roy; *Executive Director:* D. K. Gupta.

Hindustan Coir, P. O. Kalavoor 688522, Alleppey Dist., Kerala.

This powerloom factory is under the Coir Board (Govt. of India) for the production of coir mattings—first of its kind under public sector. Started production on commercial scale on 1st Jan. 1969.

General Manager-in-Charge: V. Abdul Majeed.

Hindustan Copper Ltd., Regd. Office: Industry House, 10, Camac St., Calcutta 700017.

Khetri Copper Complex, Rajasthan: Capacity; *(i)* Production of 31,000 tonnes of electrolytic grade copper metal per annum; *(ii)* Production of about 200,000 tonnes of triple super phosphate per annum.

Indian Copper Complex, Bihar: The current production of copper metal at Ghatsila is about 15,000 tonnes per annum. The company plans for the expansion of production of copper metal at this complex to about 20,000 tonnes.

Rakha Copper Project, Bihar: Located in District Singhbhum and comprising 3 blocks *(i)* Rakha Mines Block; *(ii)* Roam Sideshwar; and *(iii)* Tama Pahar. Work on the first phase development of Rakha Copper Project started in August, 1969. A new concentrator plant has been set up.

Dariba Copper Plant, Alwar District, Rajasthan: The project with a capacity production of 100 tonnes of ore per day or copper concentrates equivalent to about 600 tonnes of copper metal per year, went into production in August, 1973.

Malanjkhand Copper Project, Madhya Pradesh: The first stage of the work to exploit the Malanjkhand deposits in Balaghat District has been completed. The target is to produce 20,000 to 30,000 tonnes of copper metal per year.

Chandmari Copper Project, Jhunjhunu Dist., Rajasthan: Open-cast mining operations started at Chandmari to produce 500 tonnes of copper ore per day. The mine is being planned to be expanded to produce 1,000 tonnes per day.

Chairman-cum-Mg. Director: M. V. N. R. S. Rao.

Hindustan Diamond Co. Ltd., Atlanta, 15th Floor, Nariman Point, Bombay 400021.

Functions: Import and sale of rough diamonds.

Chairman & Mg. Director: S. N. Sharma.

Hindustan Fertilizer Corpn. Ltd. (HFCL), Madhuban, 55, Nehru Place, New Delhi 110019. One of the five companies of the reorganised Fertilizer Corpn. of India Ltd., and National Fertilizers Ltd., HFCL has three fertiliser producing units namely—Namrup, Durgapur and Barauni and a Project—Haldia which is on commissioning stage. It has an annual production capacity of 650,000 tonnes of Nitrogen, 75,000 tonnes of P_2O_5 and 75,000 tonnes of K_2O.

Mg. Director: Pratap Narayan.

Hindustan Insecticides Ltd., Regd. Office: Hans Bhavan, Wing 1, 1, Bahadur Shah Zafar Marg, New Delhi 110002.

Factories at Delhi, Udyogmandal (Kerala), Rasayani (Maharashtra), and *Regional Sales Offices* at Delhi, Hyderabad and Calcutta.

Manufacturers of well known pesticides like DDT, BHC, ENDOSULFAN, MALATHIAN, DICOFOL, CYPERMETHRIN, VITAVAX, and PLANTAVAX, etc. used extensively for the pest control in agriculture and health programmes.

HIL is recognised as a Technical Consultant on pesticides by United Nations Development Programme.

HIL is also a recognised agency for coordinating Regional Pesticide Development Programme of the UNDP for ESCAP.

HIL is also setting up a Central R&D Complex with Pesticide Development Programme, a project executed by UNDP.

HIL has a successive record sales turnover during the last 5 years and during 1982-83 showed Rs. 393.6 million turnover—4.43 per cent increase over the previous year.

Chairman & Mg. Director: Dr. Ram S Hamsagar.

Hindustan Latex Ltd., Nirodh Factory, Peroorkada, Trivandrum 695005, Kerala.

Registered Office: Latex Bhavan, Mahilamandiram Rd., Poojapura, Trivandrum 695012 (Under the Ministry of Health and Family Welfare).

The company set up with Japanese collaboration, manufactures upto 288 million pieces of Nirodh (Rubber condoms) per year and also Rakshak, Share and Meteorological Balloon, etc.

Hindustan Machine Tools Ltd., No. 36, Cunningham Rd., Bangalore 560052.

The company was incorporated on 7th February, 1953 under the Indian Companies Act, 1913 as a Private Limited Company and was converted into a Public Company with effect from May 13, 1977.

It is engaged in the manufacture of high precision machine tools, tractors, mechanical and quartz analogue wrist watches, horological machinery, printing machines, lamps and lamp-making machinery, bearings and dairy machinery.

The company's manufacturing units are as under: HMT I & II, Bangalore (Karnataka); HMT III, Pinjore (Haryana); HMT IV, Kalamassery (Kerala); HMT V, Hyderabad (Andhra Pradesh); HMT VI, Ajmer (Rajasthan); Watch Factory I & II, Bangalore (Karnataka); Watch Factory III, Srinagar (Jammu & Kashmir); Watch Factory IV, Tumkur (Karnataka); Horological Machinery Divn., Bangalore (Karnataka); Dairy Machinery Unit, Aurangabad (Maharashtra).

Production & Sales: The company's production and sales for the year 1982-83 were Rs. 2,803 million and Rs. 2,755 million respectively.

Exports: The company's products are exported through HMT (International) Limited, the wholly-owned subsidiary of the company.

During the year 1982, the exports of HMT (International) Limited amounted to Rs. 192 million.

Central Metal Forming Institute: This institute has been set up by the company at Hyderabad for the purpose of promoting metal forming technology in India. The cost of the project is Rs. 36.2 million.

Fifth Watch Factory: HMT's Watch Factory-V is being set up at Ranibagh in Nainital (UP)—an economically backward area. It will be a parent plant with a production capacity of 2 million watch component sets feeding its output of precision components to assembly units in the small-scale sector. This Rs. 447.1 million project is scheduled to be completed in 1985.

Miniature Battery Unit: A separate unit for the manufacture of Silver Oxide Batteries required for effective functioning of electronic watches is being set up at Patagaon in Assam at an estimated project cost of Rs. 296 million. The unit with an annual production capacity of a million Silver Oxide Batteries is scheduled to be commissioned this year.

Stepper Motor Project: This Rs. 1.9 million project is being set up at Tunkur, Karnataka. Commercial production will commence by January, 1984.

Mg. Director: T. V. Mansukhani; *Directors:* I. K. Amitha (Marketing Policies, Corporate Planning & Projects); G. V. Appa Rao (Machine Tools); Dr P. K. Chaudhuri (Personnel); N. Swaminathan (Finance); *Executive Directors:* R. Raghurama Reddy (Watches); C. R. Nagendran (International); K. S. Namdev Rao (General Engineering Products); H. C. Gandhi (Agricultural Machinery).

Hindustan Organic Chemicals Ltd., P. O. Rasayani 410207, Raigad Dist., Maharashtra.

Hindustan Organic Chemicals Ltd., a Rs. 500 million ultra modern chemical complex is located at Rasayani about 75 kms. from Bombay. It has also started setting up a Rs. 500 million Phenol/Acetone complex at Cochin and a Rs. 240 million Polytetrafluoroethylene project at Medak District, Andhra Pradesh.

Product Range: Phases I & II: By 1973-74 first phase was completed and phase II has been put on stream by 1981-82.

The company manufactures Aniline, Acetanilide, Nitrobenzene, Dinitro-benzene, Hydrogen, Sulphuric Acid/Oleums, Meta Amino Phenol, Formaldehyde, Benzene Hexachloride (Tech), Nitrotoluenes, Chlorobenzenes, Nitrochlorobenzenes, Resorcinol etc.

Expansions and Increasing capacities: Doubling capacities of Nitrotoluenes (6180 TPA) and trippling capacities of Nitrochlorobenzenes (9000 TPA) would be over by 1983-84. Minor schemes like debottlenecking of some of the existing plants are also under way.

The company's sales are of the order of Rs. 440 million at present and are expected to touch a level of Rs. 1,000 million in the next 3-4 years.

Chairman & Mg. Director: H. Krishnamurthy.

Hindustan Paper Corpn. Ltd., Regd. Office: Vishal Bhavan, 95, Nehru Place, New Delhi 110019. *Head Office:* 75-C, Park St., Calcutta 700016.

Project Offices: Nowgong Paper Project, Jagi Rd., Nowgong 782001; Cachar Paper Project, P.O. Panchgram, Cachar, Assam 788802. *Subsidiaries:* Hindustan Newsprint Ltd., P. O. Kerala Newsprint Nagar, Kerala 686616; Nagaland Pulp & Paper Co. Ltd., P.O. Paper Nagar, Mokokchung 798601, Nagaland; Mandya National Paper Mills Ltd., Belagula 571606, Karnataka.

Functions: The Corporation has set up four plants. Two of these, *viz.* the Hindustan Newsprint Ltd., situated in Vellore, Kottayam Distt. with a production capacity of 80,000 tonnes of Newsprint per annum, and the Nagaland Pulp & Paper Co. Ltd. situated at Tuli in Nagaland, Distt. Mokokchung, with an annual production capacity of 33,000 tonnes of writing & printing paper, are already in production. The two other units are situated at Nowgong & Cachar in Assam, each with a production capacity of 1,00,000 tonnes of paper per annum.

Chairman: R. V. Subrahmanian; *Mg. Director:* S. N. Tripathi.

Hindustan Petroleum Corpn. Ltd., 17, J. Tata Rd., Bombay 400020.

(See Chapter on "Petroleum Industry".)

Hindustan Photo Films Mfg. Co. Ltd., Indunagar, Ootacamund 643005, Tamil Nadu.

This factory was set up in collaboration with a French firm Bauchet and Co. The production during 1981-82 was 11.328 m. sq.m. valued at Rs. 826.20 million and the turnover during the year is Rs. 837.40 million. The company produces cinema positive (B & W), cinema sound, medical X-ray film and photographic paper in addition to converting cine positive colour and roll film out of imported jumbo rolls. The company also converts the industrial X-ray film and graphic arts film out of imported jumbo rolls. As an adjunct to the main plant a silver nitrate plant, a silver sludge recovery plant and a unit for synthesising organic chemicals are also in operation. For the last seven years the company has been making reasonable profits.

Mg. Director: P. R. S. Rao.

Hindustan Prefab Ltd., Jungpura, New Delhi 110014.

Main products: Prefabricated components for multi-storeyed buildings; prestressed concrete electric transmission and street-light poles; P.C.C. beams and trusses for industrial sheds with sheeted roofs; hollow core roofing and flooring components; hollow blocks for roofing and walling; overhead concrete water storage tanks; prestressed concrete monoblock railway sleepers, precast R.C.C./P.C.C. components of bridges; Vayuthan cellular concrete blocks for cold storage and air-conditioned buildings and for light weight partitions; machine-made doors, window frames and shutters made out of kiln-seasoned timber; R.C.C. channel slabs for roofing, seasoning of timber; design and execution of prefeb residential, commercial and industrial constructions on turn-key basis; consultancy services as recommended by bureau of public enterprises; project management and quality control services for industrial and housing projects.

Chairman & Mg. Director: G. K. Majumdar.

Hindustan Salts Ltd., 'Lal Niwas', 21, Ram Singh Road, Narain Singh Circle, P.B. 146, Jaipur 302004, Rajasthan.

The salt sources at Kharaghoda (Gujarat) and the salt mines at Mandi (Himachal Pradesh) are under the administrative control of the company. At Kharaghoda the salt is manufactured from sub-soil brine and at Mandi it is excavated from mines.

The Bromine plant at Kharaghoda started functioning since March 1979. It produces 500 kg. Bromine per day from salt bitterns discarded after the manufacture of salt.

The Sambhar Salts Ltd., is a subsidiary of Hindustan Salts Ltd. It has a unit at Sambhar Lake in Rajasthan where the salt is manufactured out of lake water.

Chairman & Mg. Director: K. K. Shukla.

Hindustan Shipyard Ltd., Visakhapatnam 530005, Andhra Pradesh.

The shipyard has four building berths with a capacity of general cargo vessels upto 15,000 dwt. each, and bulk carriers/tankers upto 30,000 dwt. The capacity of the dry dock constructed at a cost of Rs. 48.2 million is 70,000 dwt. Hindustan Shipyard has so far built 79 ships of different sizes and types aggregating more than 823,126 dwt.

Chairman & Mg. Director: Vice-Admiral K. R. Menon.

Hindustan Steel Ltd., Durgapur 713208, West Bengal (Refer to "Steel Authority of India" in this list). (Also see Chapter on "Steel Industry").

Hindustan Steelworks Construction Ltd., 1, Shakespeare Sarani (8th Floor), Calcutta 700071.

The company undertakes entire responsibility for the construction of steel plants. The diversified activities of the company cover the existing as well as the new steel plants under construction. The company has also undertaken construction of dams, bridges, mining complexes, dry docks, townships, etc. This technology and expertise are also available for export abroad.

Hindustan Teleprinters Ltd., G.S.T. Rd., Guindy, Madras 600032.

Regional Offices: (I) E-65, Himalaya House, 23, Kasturba Gandhi Marg, New Delhi 110001. (2) 33-A, Jawahar Lal Nehru Road, Chatterjee International Centre, Sixth Floor, Flat No. 5, Calcutta 700071. (3) Office No. 2, 12th Floor, Regent Chambers, Backbay Reclamation, Nariman Point, Bombay 400021.

Manufacturers of: Teleprinters in Latin, Devanagari and Arabic scripts and bilingual teleprinters and teleprinter ancillaries such as reperforator attachments, tape transmitter attachments, independent automatic tape transmitters, line units etc., data modems, computer peripheral and electric typewriters, etc.

Exporters of teleprinters and ancillaries.

Chairman & Mg. Director: T. K. Sethuraman.

Hindustan Zinc Ltd., 6, New Fatehpura, Udaipur 313001 (Rajasthan).

The units administered by this company are:

Under Operation: MINES: (1) **Agnigundala Lead Mine,** Bandalamottu, District Guntur (A.P.) has an installed capacity of 72,000 tonnes of ore mining and milling per annum; (2) **Maton Rockphosphate Mine,** District Udaipur (Rajasthan)—Developed to meet rockphosphate requirement of superphosphate and phosphoric acid plants at Debari, it has an installed capacity of 180,000 tonnes of rockphosphate ore with matching capacity for beneficiated ore having 32% P_2O_5; (3) **Zawar Group of Mines** (Mochia and Balaria), District Udaipur (Rajasthan) has an installed capacity of 1.2 million tonnes of zinc-lead ore with about 5 per cent zinc and lead metal content.

SMELTERS: (1) **Debari Zinc Smelter,** District Udaipur (Rajasthan) has an installed capacity of 45,000 tonnes of zinc metal, 87,000 tonnes of sulphuric acid, 190 tonnes of cadmium metal, 72,600 tonnes of single superphosphate and 26,000 tonnes of phosphoric acid (100% P_2O_5) per annum; (2) **Tundoo Lead Smelter,** District Dhanbad (Bihar). The present smelting capacity is 8,000 tonnes per annum lead with 12 tonnes per annum silver as by-product; (3) **Vizag Zinc-Lead Smelter,** Visakhapatnam (AP). This zinc-lead smelting complex has a designed capacity of 30,000 tonnes of zinc, 10,000 tonnes of lead (now expanded to a capacity of 22,000 tonnes), 66,000 tonnes of sulphuric acid, 115 tonnes of cadmium and 30 tonnes of silver per annum.

Under Trial Operation: (1) **Rajpura-Dariba Mine,** District Udaipur (Rajasthan). This mine has been commissioned in March 1983 and it has an installed capacity of 900,000 tonnes of zinc-lead ore per annum with about 7.8 per cent of zinc and lead metal content; (2) **Sargipali Lead Mine,** District Sundergarh (Orissa). Commissioned in April, 1983, this mine is designed to produce and beneficiate 150,000 tonnes of ore per annum.

New Projects: (i) Rampura-Agucha Zinc-Lead Project, District Bhilwara (Rajasthan)—to develop a mine for producing 2,500 tonnes per day of ore containing 13.48% zinc and 1.93% lead; (ii) Baroi Zinc-Lead Mine (Zawar Group) District Udaipur (Rajasthan)—to produce 1,000 tonnes ore per day containing 3.85% lead and 1.22% zinc; (iii) Chanderiya Zinc-Lead Smelter, District Chittorgarh (Rajasthan)—to produce 70,000 tonnes of zinc and 35,000 tonnes of lead per annum.

Chairman & Mg. Director: R. P. Kapur.

Hotel Corpn. of India Ltd., Fifth Floor, Centaur Hotel, Bombay Airport, Bombay 400099.

Functions: A wholly-owned subsidiary of Air India, aims at carrying on the business of Hotel Management and Flight Catering providing lodging and boarding facilities for the tourist trade.

At present it operates two Flight Kitchens at Bombay and Delhi under the name—"Chefair", Restaurants and Snack Bars at Bombay and Delhi Airports.

The Corporation runs a 288 room luxury class Centaur at Santacruz, Bombay, and the 416 room Centaur Hotel, Delhi Airport, with a 24-hour check-out facility; the Centaur Beach Resort, Bangaram, Lakshadweep Islands. The Corporation's new properties are two luxury class hotels—the 281 room Centaur Lake View Hotel, Srinagar (opened in Oct. 83) and the 396 room Centaur, Juhu Beach, Bombay (under construction). Two Japanese style inns in U.P. and Bihar are coming up shortly. Also a new Flight Kitchen is being built near the new international Airport Complex in Bombay and the one at Delhi has started functioning.

Chairman: Raghu Raj; *Mg. Director:* A. C. Mahajan.

Hotel Janpath, Janpath, New Delhi 110001.

This Hotel is a unit of India Tourism Development Corporation having 213 rooms. It is moderately priced and very centrally situated.

Housing & Urban Development Corpn. Ltd., HUDCO House, Lodhi Rd., New Delhi 110003.

Functions: To finance or undertake housing and urban development programmes in the country, to offer consultancy services for Housing & Urban Devpt. Projects in India and abroad and also setting up of new or satellite towns and building material industries etc. In ten years it has approved loans for 2,493 projects for about Rs. 11,470.3 million spread over almost all States and Union Territories.

Chairman & Mg. Director: H. U. Bijlani.

Hydro Carbons (India) Pvt. Ltd., (See Chapter on Petroleum Industry).

IISCO Stanton Pipe & Foundry Ltd., IISCO House, 50, Chowringhee Rd., Calcutta 700071.

India Firebricks & Insulation Co. Ltd., 'Nirmal' (21st Fl.), Nariman Point, Bombay 400021.

Works: P. O. Marar, Near Ranchi Rd. Rly. Stn., Hazaribagh 829117.

Mg. Director: N. C. Mukherjee.

India Tourism Development Corpn. Ltd., Jeevan Vihar, 3, Parliament St., New Delhi 110001.

Regional Offices: Nirmal, Nariman Point, Bombay 400021; 3G, Everest Bldg., 46C, Chowringhee Rd., Calcutta 700071; 29 Victoria Crescent, Commander-in-Chief Road, Madras; C-119, Naraina, Near Ring Road, New Delhi.

Functions: It provides a range of tourist services throughout the country: Accommodation, transport, entertainment, tourist literature, duty free shops, operates its own travel agency Ashok Travels & Tours' and also offers consultancy-cum-managerial services.

ITDC runs 25 hotels, 2 beach resorts, 4 forest lodges, 12 travellers' lodges, 3 sound and light shows, 7 duty free shops, 19 transport units and 14 restaurants (including six airport restaurants).

Chairman: Lt. Gen. A. M. Sethna, PVSM, AVSM (Retd.); *Mg. Director:* Rajan Jetley.

Indian Airlines (See Chapter on Civil Aviation).

Indian Dairy Corpn., Darpan Bldg., R. C. Dutt Rd., Vadodara 390005.

Branches: Delhi, Bombay, Madras & Calcutta.

Functions: To promote dairying in India and to execute IDA-EEC-GOI Dairy Development programme—Operation Flood.

Objectives: Operation Flood-II aims at enabling some 10 million rural milk producers' families in over 155 districts to build a viable, self sustaining dairy industry; to rear a National Milch Herd of some 14 million cross bred cows and upgraded buffaloes; to erect a National Milk Grid which will link the rural milksheds to the major demand centres with urban population totalling 150 million; to erect an infrastructure and through this to increase the per capita availability of milk to 144 gms. daily towards mid 1980s.

Achievements: Operation Flood-I which was initiated during July 1970 and terminated in March 1981 covered 27 milksheds in 10 states of the country. Under Operation Flood-II the project with total outlay of Rs. 4,850 million, similar dairy development programmes are now being implemented in about 77 milksheds of 19 states/Union Territories. The programme is being extended to cover a total of 155 districts in the country. At the end of the year 1982-83, the programme covered over 20,000 primary village dairy cooperative societies in various states with participation of over 2.2 million farmer families, under the cooperative ambit. The rural dairies covered under the programme procured on an average over 3.3 million kg. of milk per day during 1982-83, the average peak collection being over 4.8 million kg. per day. The peak capacity utilisation of the rural dairies during the year was around 106 per cent. Upto 31.3.1983 the funds generated by IDC under OF-II have been Rs. 1,667.47 million. The total amount released to the state implementing agencies under OF-II inclusive of direct expenditure by the Indian Dairy Corporation till 31.3.1983 amounts to Rs. 1,392.68 million.

Chairman: Dr. V. Kurien; *Mg. Director:* G. M. Jhala.

Indian Drugs and Pharmaceuticals Ltd., *Head Office:* IDPL Complex, Delhi-Gurgaon Road, Gurgaon 122001 (Haryana). *Postal Address:* P.B. No. 3816, New Delhi 110049.

IDPL has five plants—IDPL Virbhadra (Rishikesh) for antibiotics; IDPL Hyderabad for synthetic drugs; IDPL -Madras for surgical instruments and pharmaceutical specialities; IDPL Gurgaon for pharmaceutical specialities and IDPL Muzaffarpur for alcohol based chemicals and allied products.

At IDPL's Fine Chemicals Division at Hyderabad, a wide range of fine chemicals are being produced for industry and research. IDPL's Design, Development & Process Engineering Division (DDPE) at Hyderabad provides the technical expertise for designing, erection and commissioning of pharmaceutical plants. It has its Research & Development wings both at Hyderabad and Rishikesh.

Apart from these projects, IDPL, in collaboration with the Govt. of Uttar Pradesh through Pradeshiya Industrial and Investment Corpn. Ltd., Govt. of Rajasthan through Rajasthan State Industrial and Minerals Development Corpn. Ltd., Govt. of Orissa through Industrial Promotion Investment Corpn. of Orissa Ltd., and Govt. of Punjab through Punjab State Industrial Development Corpn. Ltd., has set up formulation units at Lucknow, Bhubaneswar and Jaipur and a starch-cum-glucose-cum-dextrose plant at Sangroor.

IDPL complex consists of 9 plants in India employing over 13,000 people.

Chairman & Mg. Director: P. N. Bahl.

Indian Investment Centre, Jeevan Vihar, Sansad Marg, New Delhi 110001.

The Indian Investment Centre (IIC), an autonomous organisation sponsored by the Government of India, was established in 1960. It provides information and advice on all aspects of industrial investments in India including promotion of projects with foreign collaboration within the framework of government's policies. It also assists Indian industrial investments abroad. It works in close co-operation with the Central and State Governments and official industrial promotion agencies. It renders free assistance to public and private firms for setting up joint ventures in India and abroad. To stimulate the flow of foreign private capital and technical know-how into India, the Centre assists non-residents of Indian origin to identify and bring together potential collaborators for joint ventures in the country. It also disseminates information on commercially viable indigenous technologies to the prospective investors and provides effective assistance to Indian entrepreneurs for the setting up of joint ventures in third countries in collaboration with suitable foreign concerns. For encouraging industrial investment in the country it provides guidance and assistance to the entrepreneurs regarding government's policies, procedures, available incentives, availability of raw materials etc.

The IIC brings out a monthly 'Newsletter' containing information on latest developments in industrial investment policy and procedures and on the investment opportunities in various sectors of industries. The IIC also brings out, from time to time, a number of publications providing authentic information in respect of government policies/procedures on and facilities/incentives etc. Besides the head office at New Delhi, the IIC has five offices abroad, viz. Said Muhorbi Bldg. (Behind Al Masaood), Villag Khalida, P.O. Box No. 4090, Abu Dhabi (UAE); India House, Wilhelm Leuschuer-Str 936000, Frankfurt/Main, West Germany; C/o High Commission of India. Louvre Buildings, 263, Regent Street, London WIR 7PA; 445, Park Avenue, N.Y. 10022, New York; C/o Embassy of India, 2-11, Kudan Minami, 2-Chome Chiyado-ku, Tokyo.

Chairman: P. K. Kaul; *Exec. Director:* C. B. Jain.

Indian Iron & Steel Co. Ltd., 50, Chowringhee Rd., Calcutta 700071 (A subsidiary of Steel Authority of India).

Indian Oil Blending Ltd., Pirpau, Trombay, Bombay 400074.

Mg. Director: B. M. Lal.

Indian Oil Corporation Ltd. (See Chapter on Petroleum Industry).

Indian Petrochemicals Corpn. Ltd., P. O. Petrochemicals 391346, Vadodara Dist., Gujarat. (For details see chapter on Petrochemical Industry.)

Chairman & Mg. Director: Dr. Subrato Ganguly.

Indian Railway Construction Co. Ltd., Rattan Jyoti, 18, Rajendra Place, New Delhi 110008.

Chairman: P. N. Kaul; *Mg. Director:* V. K. J. Rane.

Indian Rare Earths Ltd., Pil Court, 111, M. Karve Rd., Bombay 400020 (Also see Chapter on "Atomic Energy").

Chairman & Mg. Director: M. A. Hadi: *Secretary:* R. K. Ramanathan: *Project Director:* K. Subramanian.

Exec. Director, Rare Earths Division, Alwaye: B. P. Nair.

Divisional Manager, Minerals Division, Quilon: N. R. Nair.

Divisional Manager, Thorium Division, Trombay: G. K. Kelkar.

Indian Road Construction Corpn. Ltd., 30-31, Raja House, Nehru Place, New Delhi 110019.

Chairman & Mg. Director: Maj. Gen. J. S. Soin, P.V.S.M.

Indian Standards Institution, Manak Bhavan, 9, Bahadur Shah Zafar Marg, New Delhi 110002.

Regional Offices: E-9, Marol Industrial Area, Andheri (East), Bombay 400093; 1/14, C.I.T. Scheme VII M. VIP Rd., Maniktola, Calcutta 700054; G. I. T. Campus, Adyar, Madras 600020; B69 Phase VII, Industrial Focal Pt., SAS Nagar 160051 (Punjab). *Branch Offices:* 'Pushpak', 3rd Flr., Nurmohamed Shaikh Marg, Khanpur, Ahmedabad 380001; 'F' Block, Unity Bldg., Narasimharaja Square, Bangalore 560002; Gangotri Complex (6th Fl.), Bhadbhada Rd., T. T. Nagar, Bhopal 462003; 22E, Kalpana Area, Bhubaneswar 751014; R-14, Yudhister Marg, 'C' Scheme, Jaipur 302005; 5-8-56/57, L. N. Gupta Marg, Hyderabad 500001; 117/418B, Sarvodaya Nagar, Kanpur 200005; Patliputra Indl. Estate. Patna 800013; Hantex Bldg. (2nd Floor), Railway Station Rd., Trivandrum 600095.

Aims and Objects: Preparation of standards relating to products, commodities, etc. and their promotion on national & intnl. basis. The Insttn. operates under an Act of Parliament. ISI Certification Marks Scheme under which items manufactured in conformity with the relevant Indian Standards are certified with ISI Marks as a third party assurance to the purchaser. The Insttn. also assists in developing in-plant standardisation in industrial units, promotes educational utilisation of Indian Standards, and imparts training in industrial standardisation to scientists & technologists from developing countries.

Director General: Dr. A. K. Gupta.

Indian Telephone Industries Ltd., *Corporate & Regd. Office:* 16, Museum Road, Bangalore 560001.

Regional Offices, Sales & Services: High Gate Arcade, 33, Church St., Bangalore 560001; 62/63, "Advent", 12A, Gen. Bhosale Marg, Bombay 400021; United India Life Assurance Bldgs., 22, Chittaranjan Ave., Calcutta 700013; 3, Tolstoy Marg, New Delhi 110001; 129, Greames Rd., Madras 600006.

The ITI is a multi-unit industrial complex in the Public Sector with 11 units at five locations: Bangalore, Naini, Rae Bareli, Srinagar and Palghat. One more unit will be commissioned at Mankapur, Gonda, for Electronic Switching Equipments.

The ITI manufactures the entire range of telecommunication equipment—automatic exchanges of Strowger, Crossbar and Electronic types; telephone instruments; long distance transmission equipment; microwave equipment; ground communication equipment for satellite communication; specialised equipment for Railways and Defence; electronic measuring instruments; automatic road traffic signals, etc. During 1982-83, it produced equipment worth Rs. 1,800 million.

Mg. Director: K. Swaminathan.

Indo Burma Petroleum Co. Ltd., Gillander House, Netaji Subhash Rd., Calcutta 700001.

Chairman & Mg. Director: Anand Prakash Bhalla.

Industrial Credit Co. Ltd., 4, Scindia House, New Delhi 110001.

Industrial Credit & Investment Corpn. of India Ltd., 163, Backbay Recl., Bombay 400020.

Regional Offices: 2-B, Victoria Terrace, Calcutta 700017; 1, Cenotaph Rd., Madras 600018; Hindustan Times House, 18-20, Kasturba Gandhi Marg, New Delhi 110001.

Functions: To assist industrial enterprises by providing finance in both rupee and foreign currencies in the form of long or medium-term loans or equity participation, sponsoring and underwriting new issues of shares and securities, guaranteeing loans from other sources, providing managerial and technical assistance to enterprises in industrial sector and offering equipment leasing facility. Besides direct financing, ICICI offers merchant banking services and project counselling for non-resident Indians.

Chairman & Mg. Director: S. S. Nadkarni.

Industrial Development Bank of India, Nariman Bhavan, 227, Vinay K. Shah Marg, Backbay Reclamation Scheme, Nariman Point, Bombay 400021. *Regional Offices:* Neptune Towers, Near Nehru Bridge, Ashram Rd., P.B. No. 22, Ahmedabad 380009; Apeejay House, 15, Park St., P.B. No. 9010, Calcutta 700016; Udyog Vikas Bhavan, Bhangagarh, G. S. Rd., Gauhati 781005; 480, Anna Salai, Nandanam, P. O. Bag No. 1306, Madras 600035; Indian Red Cross Society Bldg., 1, Red Cross Rd., P.B. No. 231, New Delhi 110001. *Branch Offices:* Bangalore, Bhopal, Bhubaneswar, Chandigarh, Cochin, Hyderabad, Jaipur, Jammu, Kanpur, Patna and Simla.

Functions: (a) To co-ordinate the activities and to supplement the resources of other financial institutions including banks; *(b)* to plan and promote industries of key significance to the industrial structure; *(c)* to provide direct and refinance assistance to industrial concerns and; *(d)* to adopt and enforce a system of priorities in promoting future industrial growth specially in small sector and backward areas.

On order to enlarge the role of the IDBI it was delinked from the Reserve Bank of India and made an autonomous corpn. owned by the Govt. of India with effect from 16th February 1976.

The Bank has sanctioned financial assistance (excluding guarantees) totalling Rs. 82,301 million of which Rs. 56,756 million has been disbursed upto 31st March, 1982.

Chairman & Mg. Director: M. R. B. Punja; *Exec. Directors:* Philip Thomas, Dr. S. A. Dave, Satya Dev Khosla.

Industrial Finance Corpn. of India, Head Office: Bank of Baroda Bldg., 16, Sansad Marg, New Delhi 110001.

Offices: Regent Chambers, Backbay Reclm., Bombay 400021; Chatterjee International Centre, 33A, Chowringhee Rd., Calcutta 700071; 54, Sterling Rd., Nangambakkam, Madras 600034; Indian Red Cross Society Bldg., 1, Red Cross Rd., N. Delhi 110001; IFC Bhavan, C. Girdharlal Rd., Ahmedabad 380009; IFC Bhavan, Narasimharaja Square, 2, Cubbonpet, Bangalore 560002; Gangotri Bldg., Hall 'B', 5th Floor, Bhadbhada Rd., T.T. Nagar, Bhopal 462003; IPICOL House, Rupali Chowk, Janpath, Sahidnagar, Bhubaneswar 751007; S.C.O. 76-79, Laly Chambers, Sector 17-D, Chandigarh 160017; 36/328, Hospital Rd., Ernakulam, Cochin 682011; New Town Sarania, Rajgarh Rd., Gauhati 781003; IFC Bhavan, 3-6-15, Himayatnagar, Hyderabad 500029; Moondhra Bhawan, 2nd Floor, 3, Ajmer Road, Jaipur 302001; Upper India Chambers of Commerce Bldg., 14/113, Civil Lines, Kanpur 208001; Shahi Bhavan, Exhibition Rd., Patna 800001; 'Surashree', 1146/B-C, Lakaki Rd., Pune 411016.

Under its Project Financing Operations IFCI provides financial assistance to medium and large-sized eligible industrial projects, set up in the corporate and co-operative sectors in India. It is also authorised to undertake research and surveys for evaluating or dealing with marketing or investments, techno-economic studies, merchant banking operations and to provide technical and administrative assistance to any industrial concern for promotion, management or expansion of any industry.

In its promotional role, the thrust of IFCI's endeavour is on the development and growth of industries in the rural, tiny, small and medium-scale and ancillary sectors. It has also helped in the upgradation of managerial skills, broad-basing the entrepreneurial base and development of entrepreneurship through its specially devised 'Promotional Schemes' and, 'specialised agencies', set up for the purpose.

Chairman: D. N. Davar.

Industrial Reconstruction Corpn. of India Ltd., 19, (2nd Fl.), N. Subhas Rd., Calcutta 700001.

Delhi Office: Vandhna, 11, Tolstoy Marg, New Delhi 110001.

Functions: It has been set up jointly by the Govt. of India, Reserve Bank of India, IDBI and other leading financial institutions as well as nationalised banks in the country. It aims at providing financial, managerial and other assistance to sick industrial units which are potentially viable towards their revival, rehabilitation and modernisation.

Chairman & Mg. Director: V. Dixit.

Instrumentation Ltd., Kota 324005, Rajasthan.

The largest manufacturers of Industrial Process Control Instruments in India. The product-mix of the company includes a variety of sensors and transmitters, indicating, controlling and recording instruments for the measurement of temperature, pressure, flow, level and other process variables in different measuring systems such as magneto-electric, electronic, ferrodynamic and the pneumatic range of products.

Manufactures control valves and allied items with technical collaboration of Japan at the company's second unit at Palghat (Kerala).

Under its diversification scheme an agreement for manufacture of gas analysers in the line of pollution control instruments has been signed with Messrs. Hartmann & Braun of West Germany and production has commenced. A technical assistance and know-how agreement has also been signed with Messrs. Brown Bovari Kent of U.K. under its modernisation programme which covers the introduction of electronic loop instruments and pneumatic instruments with unified current output.

The company is also setting up an electronic milk analyser plant in Rajasthan as a joint venture with the Govt. of Rajasthan with technical know-how from Denmark.

The company provides specialised turn-key services of instrumentation to steel plants, thermal power stations, fertilizer and chemical based plants and other process industries. It has developed capabilities to design, fabricate, erect and commission instrumentation systems with indigenous know-how.

Chairman & Mg. Director: Wg. Cdr. A. K. Dhingra.

Integral Coach Factory, Perambur, Madras 600038.

This factory was established in collaboration with the Swiss Car and Elevator Mfg. Corpn. Ltd., Schlieren, Zurich, Switzerland, and the production was inaugurated on Oct. 2, 1955.

ICF meets the major requirements of passenger coaches of the Indian Railways. The output is 750 coaches per annum. So far, ICF has turned out over 16,000 coaches of 75 different types.

The factory has exported bogies to Burma, Thailand and Taiwan and coaches to Taiwan, Philippines, Zambia, Tanzania, Uganda, Vietnam and Nigeria.

The two Metro trainsets produced by ICF are being reached for the commercial services to begin in the near future at Calcutta.

Gen. Manager: C. N. Kapur.

ISRO Satellite Centre (ISAC), A1-6, Peenya Industrial Estate, Bangalore 560058. Set up under the Indian Space Research Organisation of the Department of Space, Govt. of India, to design, develop, integrate and plan the operations of artificial earth satellites for activities related to space science and applications. Seven satellites have so far been successfully designed, developed and put into orbit. ARYABHATA (358 Kg.—the first Indian satellite) in April 1975, BHASKARA I (445 Kg.) and BHASKARA II (435 Kg.) in June 1979 and Nov. 1981 respectively, were launched using Soviet inter-cosmos vehicle. Of these three, the first one was a technological satellite demonstrating the basic satellite technology in India and the other two were earth observation satellites and carried TV cameras (in visible and near IR bands), microwave radiometers and Data collection platform receiver. RS-1, the first Indian satellite (35 Kg.) to be launched by ISRO's own Indian launch vehicle SLV-3 in July 1980 was followed by RS-DI in May 1981 (38 Kg.) which also carried a landmark tracker payload. APPLE (launch weight 670 Kg.), the first Indian experimental communication satellite was launched in June 1981 and has been successfully carrying out many satellite communication experiments. One more of the Rohini series (RS) of satellites RSD2, was launched successfully in April 1983 using SLV-3 D2. The next series of satellites SROSS (Stretched Rohini Satellite Series), in the weight class of 150 Kg. is planned to be launched using augmented version of SLV-3, starting from 1984-85. Preparatory work on the first semi-operational Indian Remote Sensing Satellite (IRS) has commenced and the project costing a little over Rs. 620 million has been approved. In addition, specific sophisticated developmental projects have been completed for many agencies and specialised consultancy services are also made available.

Director: Prof. U. R. Rao.

Jessop & Co., Ltd., 63, N. Subhas Rd., Calcutta 700001.

Manufacturers of structural and bridge steelwork, electric overhead travelling cranes, dockside and ship building cranes, steel mill cranes, mobile cranes, diesel loco cranes, hydraulic gates, railway wagons, electric multiple unit coaches, passenger coaches, paper machinery, aerial ropeways, diesel road rollers, vibratory rollers, earth moving equipments, machine tools, steelworks equipments.

Chairman & Mg. Director: S. R. Choudhury.

Jute Corpn. of India Ltd., 1, Shakespeare Sarani, Calcutta 700071.

Regional Offices: 8/1, G. T. Road, P.O. Baidyabati, Hooghly Dist., W. Bengal; Ronaldsay Road, Battala, Agartala, Tripura (West); Hill Court Road, P.O. Siliguri, Darjeeling Dist., W. Bengal: 5, Ramkumar Mitra Lane, P.O. Krishnanagar, Nadia Dist., W. Bengal; Link Road, Badambari, Cuttack - 753009, Orissa; Mahatma Gandhi Road, Ward No. I, Dhubri, Goalpara 783301, Assam; 3/14, K. K. Banerjee Road, P.O. Berhampur, Murshidabad Dist., West Bengal; Chalapar, P. O. Rahabari, Gauhati-781008, Assam; English Bazar, Bundh Road, Malda Dist., W. Bengal; Amolapatty, D. N. Mahanta Rd., Nowgong Dist., Assam; Gandhi Path Road, Near Ashok Talkies, P.O. & Dist. Saharsa, Bihar; N.H. 31, P.O. & Dist. Purnea, Bihar; New Poddar Building, Bhabanigunge Bazar, N. N. Road, Dist. & P. O. Coochbehar, W. Bengal; M.G. Road, Vill. & P. O. Vizianagram, Andhra Pradesh; 1, Shakespeare Sarani, Calcutta-700071, W. Bengal.

Functions: (i) to ensure remunerative prices to the growers through judicious commercial operations and improvements in the marketing of raw jute, *(ii)* to operate a buffer stock in raw jute in order to stabilise the prices of raw jute, *(iii)* procurement of raw jute at statutory minimum prices as per Govt. directive and *(iv)* to work as a canalising agency for export of raw jute and allied fibres and import of the same.

Kudremukh Iron Ore Co. Ltd., II Block, Koramangala, Bangalore 560034. *Project Office:* Kudremukh (Malleswaram), Via Kalasa 577124, Chikmagalur Dist., Karnataka.

Functions: Production of iron ore concentrate and pellets.

Chairman: B. Ramachandra; *Mg. Director:* H. V. Mirchandani.

Lubrizol India Ltd. (See Chapter on Petroleum Industry).

Machine Tool Corpn. of India Ltd., Beawar Rd., Ajmer 305001, Rajasthan.

Functions: Under this project, a total of 650 Grinding Machines and a large variety of special accessories at full rated capacity valued at about Rs. 44 million are expected to be manufactured every year. The company's plant will provide employment to approximately 1,700 persons and will also give plenty of scope for the development of ancillary industries in and around Ajmer.

Machine-Tool Prototype Factory, Ambarnath 421502, Maharashtra.

Estd. 1953. The Factory, apart from meeting vital defence requirements, has established production of several types of precision machine tools.

General Manager: B. L. Khurana.

Madras Fertilizers Ltd., Manali, Madras 600068.

Production capacity is 164,000 tonnes of nitrogen and 105,000 tonnes of phosphates. It is a joint venture in which the Govt. of India holds 51 per cent of the equity capital while the remaining 49 per cent is equally shared between Amoco India Inc. of USA and the National Iranian Oil Co. of Iran. Holds 'world Record' in safe operation.

Chairman & Mg. Director: Joseph Kurian.

Madras Refineries Ltd., Refinery House, Manali, Madras 600068.

Maharashtra Antibiotics & Pharmaceuticals Ltd., L-1, MIDC Area, Hingna Rd., Nagpur 440016.

A joint venture of Hindustan Antibiotics Limited, Pimpri, & SICOM of Maharashtra has gone into commercial production in May, 1981. Within a short span, MAP has geared up to achieve it's goal to provide quality drugs at cheaper rates to the masses through institutions spread out all over India. Apart from encouraging ancillary industries, MAP has also plans to expand its marketing activities with additions to it's product range.

Mg. Director: K. V. Rao.

Mandhar Cement Factory, Mandhar 493111, Near Raipur, Madhya Pradesh.

For details see Cement Corporation of India in this list.

Mandya National Paper Mills Ltd. (Subsidiary of HPCL), Belagula 571606, Karnataka.

The mill is based on sugarcane bagasse and is the only mill in the country to manufacture fine grades of writing and printing papers using more than 90 per cent of bagasse pulp. Under the expansion scheme, the rated capacity is expected to be increased to 40,000 tonnes per annum, with a captive sugar mill.

Chairman: V. Venugopal Naidu, I.A.S. (Retd.); *Mg. Director:* T. K. Ramalinga Shetty.

Manganese Ore (India) Ltd., 3, Mount Rd. Ext., P.B. 34, Nagpur 440001.

The company at present is operating 10 manganese ore mines in Madhya Pradesh/Maharashtra region, one in Keonjhar, Orissa and one in Adilabad, Andhra Pradesh. The minerals produced are: high (ferro-manganese) grade manganese ore, low (blast furnace) grade manganese ore and battery grade dioxide ore.

The expansion programmes envisage the installation of a ferro-manganese plant and beneficiation and agglomeration plants for which letters of intent have been issued by the Govt. of India.

Labour employed: 13,000; Turnover: Rs. 168.5 million; Paid-up capital: Rs. 21.5 million; Reserves & Surplus: Rs. 34.76 million.

Mg. Director: P. C. Gupta.

Maruti Udyog Ltd., 6th Flr., Hansalaya, 15, Barakhamba Rd., New Delhi 110001.

Chairman: V. Krishnamurthy.

Mazagon Dock Ltd., Dockyard Rd., Bombay 400010.

A ship-building, ship-repair, offshore structures and general engineering concern the company can build various types of ships—like frigates, corvettes, submarines, passenger ships, passenger-cum-cargo ships, water tankers, dredgers, tugs, barges, trawlers, etc.—up to 27,000 dwt. It has three building berths, three dry docks and an impounded wet dock.

The company is constructing fully Indian designed frigate for the Navy. It has also built for the Navy 6 leander class frigates. Three offshore patrol vessels for the Coast Guard are under construction.

The company builds offshore well, process and production platform for the ONGC. The company is in the process of diversifying into installation and maintenance of platforms as well as construction of drill ships and rigs.

Chairman & Mg. Director: N. K. Sawhney.

Metal Scrap Trade Corpn. Ltd., 225F, A. J. Bose Rd., Calcutta 700020.

Functions: Canalised iron and steel scrap importer and exporter as well as canalised importer of old ships for breaking, with diversified activities in other allied fields.

Chairman-cum-Mg. Director: M. K. Majumdar.

Metallurgical & Engineering Consultants (India) Ltd., P. O. Hinoo, Ranchi 834002, Bihar.

MECON is a leading design, engineering and consultancy organisation for ferrous, non-ferrous, metallurgical, refractory, mining, chemical industries and power projects.

MECON is fully equipped to undertake the design and supply of custom-built rolling mills and auxiliary equipment for ferrous and non-ferrous industries and is also equipped to design coke oven batteries up to 7 metre high and dry coke cooling plants.

Chairman-cum-Mg. Director: P. C. Laha.

Mica Trading Corporation of India Ltd., 137, Patliputra Colony, Patna 800013.

Functions: A subsidiary of Minerals & Metals Trading Corpn. of India Ltd. and it is the sole canalising agency for export of mica. It is also undertaking fabrication and manufacture of mica based products and their marketing. It renders technical consultancy as also marketing intelligence services to entrepreneurs for setting up mica based industries. It is also promoting research for finding new uses of mica.

Regional Offices: Calcutta, Madras, Giridih, Jhumritelaiya (both in Bihar) and Bhilwara (Rajasthan).

Mineral Development Board, 9th Floor, Vandhana, 11, Tolstoy Marg, New Delhi 110001.

An autonomous Organisation set up by the Govt. of India to ensure proper regulation, conservation and development of minerals as specified from time to time by the Central Govt. It advises on *(a)* planning and development on all aspects of development of resources of minerals, *(b)* analysis, testing etc. of ore samples, market survey, other special studies and *(c)* development of the minerals in the country with particular regard to location of reserve, export requirements, the need of Indian industry, railway facilities, port facilities and scientific conservation of the specified minerals and their production, beneficiation and use, etc.

Mineral Exploration Corpn. Ltd., Seminary Hills, Nagpur 440006.

Functions: To carry out detailed exploration of mineral deposits in the country for proving and assessing gradewise reserves of minerals.

Mg. Director: Mahip Singh.

Minerals & Metals Trading Corpn. of India Ltd., Express Bldg., 9 & 10, Bahadur Shah Zaffar Marg, New Delhi 110002.

Functions: Undertakes export of iron ore, manganese ore, chrome ore, coal barytes and other minor minerals and import of stainless steel, non-ferrous metals, raw asbestos, fertilizers and fertilizer raw materials and other strategic industrial raw materials for supply to industrial units in the country. The Corporation has Regional Offices at Bombay, Calcutta, Madras, Bellary, Visakhapatnam, Vasco da Gama, Cuttack, Haldia and Nalda and foreign offices at Tokyo and Bucharest.

Chairman: S. V. S. Raghavan.

Mining & Allied Machinery Corpn. Ltd., P.O. Durgapur 713210, West Bengal; Branch Offices: 77, Park St., Calcutta 700016; Chanakya Bhavan, Chanakyapuri, New Delhi 110021.

Chairman & Mg. Director: D. R. R. Sastri.

Mishra Dhatu Nigam Ltd., Kanchanbagh, Hyderabad 500258.

The company was incorporated under the administrative control of the Ministry of Defence to set up a special metals and superalloys plant to manufacture nickel and cobalt base superalloys, high strength iron alloys, titanium and titanium alloys, controlled expansion alloys, thermostatic bimetals, high elastic modulus alloys, hard and soft magnetic alloys and tungsten and molybdenum products required by aircraft, electronic and other sophisticated industries. The plant has commenced commercial production.

Chairman: Dr. Brahm Prakash; *Mg. Director:* Dr. S. K. Gupta.

Modern Food Industries (India) Ltd., 25-B, Local Shopping Centre, Pashchimi Marg, Vasant Vihar, New Delhi 110057.

It was registered in October, 1965 and has 13 bakery units (20 lines) at Ahmedabad, Bangalore, Bombay (3), Calcutta (3), Chandigarh, Cochin (2), Delhi (3), Hyderabad, Indore, Jaipur, Kanpur, Madras and Ranchi, one oil mill at Ujjain and one beverages unit at Faridabad. The capacity of each unit is about 40,000 loaves of 400 grams per day excepting those of Bombay, Calcutta and Delhi where the rated capacity is 120,000 loaves of 400 grams per day.

All the bakery products produced by the company are fortified with Vitamin A, Vitamin B Complex (Riboflavin, Thiamine & Niacin and Iron).

During 1977 the company entered the beverage industry and introduced a new soft drink "Double Seven", "77" based on a concentrate formulation developed by the Central Food Technological Research Instt., Mysore. The company has also introduced lemon and orange flavours under the brand name "Tingler" & Double Seven Orange aerated soft drinks.

The company has introduced fruit juices and fruit drinks under the brand name of Rasika.

The company has set up an Extruder Food Plant at Jaipur with UNICEF's assistance, which will go into production shortly. The company has also plans to set up a Fruit Pulp Making Unit in Bihar, a Pineapple Juice Production Unit in Assam and a Roller Flour Mill at Faridabad.

Chairman: Kedar Nath Singh; *Mg. Director:* Laljeet Singh.

Mogul Line Ltd.*, 16, Bank St., Bombay 400023.

Operates Haj pilgrim service between Bombay and Jeddah, regular cargo-cum-passenger service between Bombay and Red Sea ports, Bombay and West Asia gulf ports, cruises to Malaysia and Singapore, Konkan passenger service, coastal cargo services and overseas tramp service. (Tonnage: 365,756 DWT.)

Chairman & Mg. Director: R. K. S. Ghandhi.

Nagaland Pulp & Paper Co. Ltd., Papernagar 798623, Mokokchung Dist. (Nagaland).

National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED), Sapna Bldg., 54, East of Kailash, New Delhi 110065.

Sponsored by the Govt. of India & consists of all Co-op. Mktg. Fedns. and Societies, Central Govt. & National Co-op. Devpt. Corpn., promotes co-op. mktg., assists its constituents by undertaking exports & imports, inter-State, intra-State & internal trade in agricultural, horticultural and forest produce, farm inputs, agricultural machinery & implements ensuring fair returns to the farmers; arranges supply of foodgrains to deficit areas; processing and storage of foodgrains, fresh fruits & vegetables, conducts research and disseminates information on cooperative marketing etc.; runs fruit & vegetable processing factories in New Delhi, Vellore and Khushalnagar and jute mill in Orissa jointly with Indl. Development Corporation of Orissa; runs a cold storage & ice factory in New Delhi; branches at various important sea ports & terminal markets in the country.

Regnl./Branch/Liaison Offices: (1) 2nd floor, A-7-8, Lawrence Road, Complex, Delhi-110035; (2) 84, Veer Nariman Road, Churchgate, P.B. No. 1537, Bombay-400020; (3) 12-B, Lord Sinha Road, 2nd floor, Calcutta-700016; (4) 13, Rajarathnam Street, Kilpauk, Madras-600010; (5) 14/4, Ravi Chambers, Relief Road, Ahmedabad-380001; (6) No. 8, Cunningham Road, Bangalore-560052; (7) 20, British India Street, Calcutta-700069; (8) *Godown:* 148, J. N. Mukherjee Road, Shalkia, Howrah; (9) Kothi 160, Sector-19-A, Chandigarh-160019; (10) 14/10-B, Palluruthy Road, Cochin-682002; (11) 2nd Floor, Rani Jhansi Road, New Delhi-110055; (12) 13/94, Maniram Dewan Lane, Ulubari, Gauhati-781007; (13) H. No. 5-8-105/C/I, 2nd Floor, Behind Kamat Hotel Nampalli Station Road, Hyderabad-500001; (14) Laj Bhavan Sanyogitaganj Mandi, Indore-452001; (15) Goswami Chambers, 2nd floor, Bardanwala Road, Jamnagar-361001; (16) Flat No. S-9, C-Scheme, Bhawani Singh Road, Jaipur-302001; (17) DS-10,

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*Merged with Shipping Corporation of India in May 1984.

Nirala Nagar, Lucknow-226007; (18) 158, Linghi Chetti Street, Madras-600001; (19) No. 29, Neela South Street (Upstairs), Nagapattinam-611001; (20) 2nd floor, Anuradha Theatre Bldg., M. G. Road, Nasik Road-422101; (21) MIT Building (3rd floor), Buddha Marg, Patna-800001; (22) Pocket Mansion, 5th floor, Upper Kaithu, Shimla-171003(HP); (23), 24, Gogji Bagh, Srinagar-190008 (J & K) Srinagar; (24) Nohra-53, 1st floor, Street No. 2, Dhan Mandi, Sriganganagar-335001; (25) D-392, New Fruit Market, Azadpur, Delhi-110033; (fruit & veg. branch); (26) *Cold Storages:* 7-8, Lawrence Road, Delhi-110035; (27) Agrl. Machinery Divn. & Service Station: 7-8, Lawrence Road, Delhi-110035;(28) Sub Offices: (i) Ropar (Punjab), (ii) Faridabad (Haryana), (iii) Sriganganagar (Raj.), (iv) Ferozepur (Punjab); (29) NAFED Processed Foods: A-6, Lawrence Road, Delhi-110035, 40, Katpadi Road, Vellore-632004, Distt. North Arcot (T.N.) & Bangalore-Mangalore Road, Kushalnagar-571234, Coorg. Distt. (Karnataka); (30) NAFED Warehousing & Processing Industries: Vashi Turbhe, New Bombay-400073; (31) NAFED Poultry & Consumer Distribution Centre: 7-A, Lawrence Road, Industrial Area, Delhi-110035; (32) NAFED IDCOL JOINT VENTURE JUTE MILL: Konark Jute Limited, P.O. Box 163, 50/A, Kharavela Nagar, Bhubaneswar-751001.

Mg. Director: B. J. Heerjee, IAS.

National Aluminium Co. Ltd., Idco Towers, Janapath, Bhubaneswar-751007.

Mg. Director: K. V. B. Pantulu.

National Bank for Agriculture and Rural Development, Poonam Chambers, Dr. A. Besant Rd., P. B. No. 6552, Worli, Bombay 400018.

Regional Offices: Nanalal Chambers, Ashram Road, Post Bag No. 8, Ahmedabad 380009; Indian Express Bldg. No. 1, Queen's Rd., P. B. No. 5324, Bangalore 560001; Guru Nanak Complex, 34, Malviya Nagar, Bhopal 462003; Plot No. 101, Janpath, Station Square, P. B. No. 179, Bhubaneswar 751001; 4 & 4/1, Red Cross Place, P.B. No. 71, Calcutta 700001; Kalsi Building, S.C.O. 179/80, Sector 17C, P.B. No. 35, Chandigarh 160017; Lakshmi Bhavan, Dr. J. C. Dass Rd., Pan Bazar, P.B. No. 81, Gauhati 781001; 6-1-91, Pioneer House, 6-3-653, Somajiguda, Hyderabad 500004; C-93, Subhash Marg, C Scheme, P.B. No. 10, Jaipur 302001; Sahakari Kisan Bhawan, 4th and 5th Floor, 2, Mahatma Gandhi Marg, Lucknow 226001; 499, Anna Salai, Teynampet, Madras 600018; Arunachal Bhawan, 4th Floor, Dak Bangalow Rd., Patna 800001; Archbishop's Compound, P. B. No. 5, Pattom, Trivandrum 695004; C/o R. B. I., 6, Sansad Marg, New Delhi 110001.

Functions: Established with the object of providing credit for the promotion of agriculture, small scale industries, cottage and village industries, handicrafts and other rural crafts and other allied economic activities in rural areas with a view to promoting integrated rural development and securing prosperity of rural areas and for matters connected therewith or incidental thereto.

Chairman: R. K. Kaul; *Mg. Director:* Sant Dass.

National Bicycle Corporation of India Ltd., 250, Worli, Bombay 400025.

Manufactures: Speed King, Norton, Ambassador, Bunny Hind Superb, Unibike, Paprika Bicycles and Bicycle Parts.

Branch Works: Hind Nagar, Ghaziabad 201001.

Chairman-cum-Mg. Director: B. C. Goel.

National Buildings Construction Corporation Ltd., NBCC House, Lodi Road 1, New Delhi 110003.

Functions: The Corporation has built up considerable expertise in undertaking specialised projects such as pile foundations, bridges and flyovers, airports, industrial structures—cement plants, fertilizer plants, power stations, paper and pulp plants, refineries, petro-chemical complexes, coal handling & ash handling plants, pre-stressed concrete works, tall RCC chimneys, marine jobs, water supply and sewerage schemes, multistoreyed structures, luxury hotel complexes, deep foundation structures and T.V. Towers etc.

Chairman-cum-Mg. Director: S. C. Kapoor.

National Cooperative Development Corporation, 4, Siri Institutional Area, Behind Hauz Khas, New Delhi 110016.

Regional Offices: Chatterjee International Centre, 4th Fl., 33A, Chowringhee Rd., Calcutta 700007; 8, Cunningham Rd., Bangalore 560052; Ahimsa Building, 2nd Fl., S. C. O. 82-83, Sector 17-C, Chandigarh 160017; Bora Service Station Building, 2nd Fl., G.S. Rd., Ulubari, Gauhati 781007; B-7B, Durgadas Colony, Bhawani Singh Rd., Jaipur 302001; 14, Vidhan Sabha Marg, Sahakarita Bhawan, Lucknow 226001; 17, Mahatma Gandhi Rd., 3rd Fl., Pune 411001.

Project Offices: Biscomun Compound, West Gandhi Maidan, Patna 800001; C/o M.P. State Cooperative Bank Building, Ground Fl., New Market, T.T. Nagar, Bhopal 462003; C/o Orissa State Cooperative Marketing Federation Ltd., Station Rd., Bhubaneswar 751006; C/o A. P. State Cooperative Marketing Federation Ltd., 7th Flr., Parisram Bhawan, Basheer Bagh, Hyderabad 500029.

Functions: To plan and promote country-wide programmes through cooperative societies, for the production, processing, marketing, storage, export and import of agricultural produce, food stuffs and notified commodities. The Corpn. also deals with programmes for development of poultry, dairy, fishery, coir, handlooms and distribution of consumers articles in rural areas and minor forest produce in the Cooperative Sector.

Mg. Director: R. V. Gupta.

National Dairy Development Board, Anand 388001, Gujarat was constituted as an autonomous body (1965).

Regional Offices: Bangalore, Bombay, Calcutta and Delhi.

Functions: To speed up the overall development of dairying, animal husbandry, food and agriculture and allied sectors in the country, the Board offers *(a)* technical services for development of dairy and allied projects; *(b)* manpower development services; *(c)* production, procurement, processing and marketing services for agricultural and food products; *(d)* specialised dairy engineering services; *(e)* consultation services on dairy, oilseeds and allied agricultural operations and *(f)* international liaison and consultancy.

Chairman: Dr. V. Kurien.

National Fertilizers Ltd., 20, Community Centre, East of Kailash, New Delhi 110065.

NFL is the ninth largest company in the country in terms of investment—Rs. 5,938 million.

NFL plants at Nangal, Bhatinda and Panipat have a combined production capacity of about 700,000 tonnes of nitrogen per annum.

NFL has retained its position as the largest producer of nitrogenous fertilizers in the country during 1982-83 with a turnover of Rs. 3,620 million—registering an increase of about 13 per cent from the previous year.

Kisan Khad and Kisan Urea produced at NFL plants are easily available to farmers through a large network of dealers, cooperatives and agro-industries.

Mg. Director: B. S. Kakkar.

National Film Development Corporation Ltd. (N. F. D. C.), 13-16, Regent Chambers, Nariman Point, Bombay 400021. (For details see chapter on Film Industry).

National Hydroelectric Power Corporation Ltd., 'Hemkunt Tower', 98, Nehru Place, New Delhi 110019 is an enterprise of the Central Government set up in November 1975.

The Corporation has successfully commissioned the 180 MW Baira Siul Project in H.P., put on stream the 105 MW Loktak Project in Manipur, and partly commissioned the 14.1 MW Devighat Project in Nepal, which is over a year ahead of target schedule. The Corporation is executing three important projects namely, the 345 MW Salal Project in J & K, the 390 MW Dul Hasti Project in J & K and the 710 MW Koel Karo Project in Bihar. Besides, a network spread over 850 circuit kms including the 400 KV has been completed and over 3250 circuit kms is under execution.

The Corporation is geared up to plan, promote and organise the development of hydroelectric power in all its aspects including planning, investigation research, designing, preparation of feasibility and definite project reports, construction, generation, operation and maintenance of hydroelectric power stations and projects, and undertake the complete designing and construction of transmission lines and ancillary works.

Chairman & Mg. Director: Pirzada Ghulam Nabi.

National Industrial Development Corpn. Ltd., P.B. 5212, Chanakya Bhavan, Vinay Marg, New Delhi 110021.

Functions: NIDC provides the entire range of engineering, economic and management consultancy services for the implementation of new industrial projects and infrastructure and modernisation/rehabilitation of existing investments. Its field of specialisation include Site and Off Site engg.-plant designs; Mineral based and engineering industries including Mining, Mineral processing, Material handling and metal working industries, Agro based industries, Industrial townships and Urban development for industrial projects; Renewable sources of energy-solar energy utilisation in agricultural and industrial sector; economic planning and regional development, industrial estates etc.

The services of the Corporation are being made use of by Central Government, various State Governments, public sector enterprises and private entrepreneurs in India. The services have also been increasingly availed of by international agencies like UNIDO, Commonwealth Secretariat, over 30 foreign countries and entrepreneurs abroad.

Chairman-cum-Mg. Director: Dr. Ram K. Iyengar.

National Instruments Ltd., 1/1, Raja S. C. Mullick Rd., Jadavpur, Calcutta 700032.

This company manufactures and repairs precision surveying instruments, meteorological and optical instruments, pressure and vacuum gauges and high precision defence instruments, scale reading device, national 35 mm. Sprinty camera and solar energy instruments.

Chairman-cum-Mg. Director: P. R. Rao.

National Insurance Co. Ltd., 3, Middleton St., Calcutta 700071.

National Jute Manufacturers Corpn. Ltd., 4, Netaji Subhas Rd., Calcutta 700001.

National Mineral Development Corpn. Ltd., Pioneer House, 6-3-653, Somajiguda, Hyderabad 500004.

Founded in 1958; *Regional Offices:* 13, Camac St., Calcutta 700017; Haroon Manzil, Thompson St., Visakhapatnam 530001; 10/2, Kasturba Road, Bangalore 560001; 109, Surya Kiran, K. Gandhi Marg, New Delhi 110001.

Functions: Exploration, development and exploitation of iron ore deposits, diamond mining in the 'Panna' area of Madhya Pradesh and prospecting for other miscellaneous minerals such as limestone, dolomite, bentonite. NMDC's Consultancy Services include mineral investigation, evaluation and feasibility study; development of sampling system, process selection and flow sheets; analysis bench scale and pilot plant testing of ore minerals; preparation of DPR; basic engineering, mine construction, commissioning and performance tests; market studies and training etc. During 1982-83, NMDC has produced 6.3 million tonnes of iron ore and 13.056 carats of diamonds and earned Rs. 1,469 million in foreign exchange from an export sale of about 6.3 million tonnes of iron ore. Presently, NMDC is having three operating iron ore mines (Bailadila deposits No. 5 and 14 in Bastar District of M.P. and Donimalai in Bellary District of Karnataka) and a diamond mine at Majhgawan in Panna, M.P. A new iron ore mine at Bailadila-11C is under development. Development of a mine based on Jagdalpur Dolomite deposit in M.P. for meeting the requirements of Vizag Steel Plant has been approved by the Government recently.

Number of projects are under investigation/planning viz.: *(a)* for Iron Ore: Bailadila Deposit No. 11B, Bastar Dist., Madhya Pradesh; Kumaraswamy, Bellary Dist., Karnataka; Bababudan Magnetite Deposits, Chickmagalur Dist., Karnataka; Malangtoli, Keonjhar Dist., Orissa; *(b)* for Diamonds at Vajrakarur and Racherla in Andhra Pradesh and Panna in M.P.

Chairman-cum-Mg. Director: C. S. Venugopala Rao; *Directors:* A. Ramachandra Rao (Finance), A. K. Chatterjee (Production) and N. Neelakantan (Planning).

National Newsprint & Paper Mills Ltd., Nepanagar 450221, East Nimar Dist., Madhya Pradesh.

Chairman-cum-Mg. Director: A. D. Singh.

(Also see Chapter on "Paper Industry".)

National Projects Construction Corpn. Ltd., Raja House, 30-31, Nehru Place, New Delhi 110019.

Functions: To provide the Central and State Governments with an organisation capable of undertaking the execution of power projects, river valley projects, industrial structures and allied civil engineering works requiring high technical skill, strict adherence to specifications and quality standards.

Chairman-cum-Mg. Director: B. R. Oberoi.

National Research Development Corpn. of India, 20-22, Zamroodpur Community Centre, Kailash Colony Extension, New Delhi 110048.

Functions: Promotion of technological self reliance by development of indigenous technologies including rural technologies, arranging their exploitation and encouraging inventive talent in the country.

NRDC is a repository of indigenous technologies and a prime agency for technology transfer. Working closely with private and government funded R & D institutions, it has licensed over 1,000 technologies, the annual value of whose production is of the order of Rs. 800 million.

Managing Director: Dr. H. S. Rao.

National Seeds Corpn. Ltd., Beej Bhavan, Pusa, New Delhi 110012.

Functions: Chief co-ordinator of the National Seed Programme, responsible for organising a sound seed industry in India; concentrates on production of foundation and certified seeds of promising varieties of cereals, vegetables, fibre, fodder, pulses and other crops evolved by research; handles inter-state marketing and export of certified seeds; provides consultancy services in different fields of seed production, processing, quality control, marketing, information communication, advertising and public relations, training and project formulation and project management.

Chairman & Mg. Director: K. P. A. Menon.

National Small Industries Corpn. Ltd., Near Ind. Estate, Okhla, New Delhi 110020.

Functions: To assist, counsel, finance and promote the interest of small industries in the country.

Chairman: J. S. Juneja.

National Textile Corpn. Ltd., 8th Fl., Surya Kiran Bldg., 19, Kasturba Gandhi Marg, New Delhi 110001.

Functions: To manage textile mills which may be taken over under the Industries (Development & Regulation) Act, 1951 and under the Sick Textile Undertakings (Taking over of Management) Act, 1972. The NTC is managing 105 nationalised mills having an installed capacity of 3.2 million spindles and 47,787 looms.

Subsidiary Corporations: National Textile Corpn. (A. Pradesh, Karnataka, Kerala, Mahe) Ltd., 29/2, K. Hanumanthiah Rd., Bangalore; National Textile Corpn. (Gujarat) Ltd., 1791, Ashram Road, Ahmedabad; National Textile Corpn. (Maharashtra) Ltd., N.T.C. House, 15, N. Morarjee Marg, Ballard Estate, Bombay; National Textile Corpn. (W. Bengal, Assam, Bihar & Orissa) Ltd. 7, J. L. Nehru Road, Calcutta; National Textile Corpn. (Uttar Pradesh), Ltd., Sylverton, 14/82, Civil Lines, Kanpur; National Textile Corpn. (Delhi, Punjab & Rajasthan) Ltd., Vandhana Bldg., 11, Tolstoy Marg, New Delhi; National Textile Corpn. (Madhya Pradesh) Ltd., 27, Yeshwant Niwas Road, Indore; National Textile Corpn. (Tamil Nadu & Pondicherry) Ltd., NTC House, P.B. No. 2409, 1064, Somasundaram Mills Rd., Coimbatore.

Mg. Director: P. G. Jain.

National Thermal Power Corpn. Ltd., N.T.P.C. Square, 62-69, Nehru Place, New Delhi 110019.

Functions: Set up under the Ministry of Energy to provide an integrated approach to development of thermal power in the country. The NTPC is responsible for the designing construction, commissioning and operation of super thermal power stations at coal pit-heads in the country. Projects under implementation include Singrauli (U.P.), Korba (M.P.), Ramagundam (A.P.), Farakka (W. Bengal), Rihand (U.P.) and Vindhyachal (M.P.) with cumulative capacity of 13,560 M.W. along with associated 400 kV transmission systems. Also presently responsible for the management of Badarpur thermal power station and project.

Chairman & Mg. Director: A. K. Shah.

Neelachal Ispat Nigam Ltd., IPICOL House, Janpath, Bhubaneswar 751007. (Orissa State).

New India Assurance Co. Ltd., New India Assurance Bldg., 87, M. Gandhi Road, Bombay 400023.

Neyveli Lignite Corpn. Ltd., Neyveli 607801, South Arcot Dist., Tamil Nadu.

This is a Rs. 7,500 million project. The integrated project envisages the mining of about 6.5 million tonnes of lignite per annum.

The 600 M.W. Thermal Power Station at Neyveli is the largest and the first lignite fire thermal power station in India and Asia located close to the pit-head.

The Urea Plant of Neyveli switched over to oil gasification from July 1979.

The Briquetting and Carbonisation Plant at Neyveli produces carbonised briquettes (Trade name: LECO) a smokeless domestic and industrial fuel from lignite.

The following tar products are also produced in the B & C plant: tar, neutral oil, carbolic acid (phenol), ortho cresol, meta-para cresols, xylenols and polyvalent phenols.

The construction of second mine with a capacity of 4.7 million tonnes of lignite per annum and a Second Thermal Power Station of 630 M.W. capacity is in full swing. The lignite from the second mine is expected to be made available from October 1984 and the first Unit (210 M.W. capacity) of the Second Thermal Power Station is expected to be commissioned by February 1985.

In February 1983, Govt. of India sanctioned the expansion of second mine from 4.7 to 10.5 million tonnes of lignite per annum and the Second Thermal Power Station from 630 M.W. to 1470 M.W.

North Eastern Electric Power Corpn. Ltd., Shillong 793003, Meghalaya.

Chairman-cum-Mg. Director: S. R. Shah.

North Eastern Handicrafts and Handlooms Development Corpn. Ltd., Upper Lachumiere, Shillong 793001.

Main objects of the corporation is to develop and promote handicrafts and handlooms in all aspects in the North Eastern Region, by providing financial, technical and other assistance to craftsmen, weavers, co-operative and any establishment, undertaking or enterprise, connected with handicrafts, handlooms and other allied products.

Chairman: B. K. Handique, M.P.; *Mg. Director:* A. K. Saikia, I.A.S.

North Eastern Regional Agricultural Marketing Corpn., Rajgarh Rd., Gauhati 781003. (Assam).

Optical Glass Plant, Central Glass and Ceramic Research Institute, Calcutta 700032.

The pilot plant located at the institute produces different types of optical glass. The plant has supplied till the end of March 1983 optical glass worth approximately Rs. 13.65 million to consumers.

M/s. Bharat Ophthalmic Glass Ltd., Durgapur, are making a few types of optical glass essentially based on the know-how developed at CGCRI.

Director: Dr. S. Kumar.

Oriental Fire & General Insurance Co. Ltd., Jeevan Udyog, Asaf Ali Road, New Delhi 110001.

Orissa Textile Mills Ltd., Choudwar, Cuttack 754025.

Paradeep Phosphates Ltd., A-132, Saheed Nagar, Bhubaneswar 751007.

Petrofils Co-operative Ltd., New Delhi House, Barakhamba Rd., New Delhi 110001.

A joint venture of the Govt. of India and weavers co-op. societies. The plant with an annual capacity of 3,500 tonnes of polyester filament yarn is situated at P.O. Petrochemicals, Vadodara Dist., Gujarat State. The capacity is going upto 7,000 mts. shortly.

Power Engineers Training Society, R. No. 207, 2nd Flr., Charanjiv Tower, 43, Nehru Place, New Delhi 110019.

Acts as an apex body for meeting the trg. needs of the power sector. It will set up a National Trg. Resources Unit for producing trg. materials, analysing skills and tasks for review & development of major trg. schemes, producing audio-visual material. etc. The Unit will also assess trg. needs & priorities, and keep liaison with the trg. units of the State Electricity Boards and suppliers of power plants and equipments, etc.

Praga Tools Ltd., 6-6-8/82, Kavadiguda Rd., Secunderabad 500003.

The company produces machine tools and machine tool accessories, forgings for railways and automobiles, defence items, etc.

Projects & Development India Ltd., CIFT Bldg., P.O. Sindri 828122, Dhanbad Dist., Bihar.

This new company was formed by constituting the Planning and Devpt. Division of the Fertilizer Corpn. of India into a separate independent Govt. Company.

Functions: Consultancy, design and engineering firm, research and development in fertilizer and chemical fields and manufacture of catalysts

Chairman & Mg. Director: Dr. B. K. Bhattacharya; *Director:* D. B. S. Sachdev (Finance).

Projects & Equipment Corpn. of India Ltd., Hansalaya, 15, Barakhamba Road, New Delhi 110001.

Formed in April 1971 as a subsidiary of the State Trading Corporation of India with complete autonomy in its marketing and commercial operations.

Functions: To export engineering, industrial and railway equipment from India, to undertake turnkey jobs abroad and to co-ordinate efforts of public and private sector industries and help them with marketing opportunities abroad, tendering and negotiations, finance and foreign exchange, procurement of materials, quality control, delivery schedules, etc.

Pyrites, Phosphates & Chemicals Ltd., *Registered Office:* Pali Road, Dehri-on-Sone 821307, Rohtas Dist., Bihar.

Units: 1. Mining Project, Amjhore, Rohtas Dist., Bihar; 2. Mussoorie Phosphorite Project, 1-AB, Ravindra Nath Tagore Marg, Dehra Dun, Uttar Pradesh; 3. Saladipura Project, P. O. Khandela, Sikar Dist., Rajasthan. *Branch Offices:* 6, Community Centre, East of Kailash, New Delhi 110065; 9, Sayed Amir Ali Avenue, Park Circus, Calcutta 700017; B-69, Sector-C, Mahanagar, Lucknow; B-4, Door No. 17, Sennathi Street, Subramania Nagar, Salem 636005; Prashant Puri, Varanasi 221002; Ramakrishnapuri, 13, Dr. M. P. Sinha Lane, Kanke Rd. (Near Jawaharnagar), Ranchi 834008; C-6, New Market Building, Sahidnagar, Bhubaneswar (Orissa); Kundu Bhavan, Bidhan Rd., Siliguri (West Bengal); Happy Villa, Uzan Bazar, Gauhati 781003; 878-E, III-B, Main Rd., RPC Layout, Vijayanagar, P. O. Bangalore 560040, Karnataka; XXXV/507-4, CRC Bldg., M. G. Rd., Cochin 682016 (Kerala); Chaturbhuj Thakur Marg, Ganipur, Muzaffarpur (Bihar).

Mining Programme: Pyrites: It has been planned to produce 270,000 tonnes of pyrites ore per annum (+33 per cent 'S') to feed the pyrites based sulphuric acid plant in Sindri at a capital cost of Rs. 133.2 million. However, the present mine capacity has been sealed at 120,000 tonnes per annum to the reduced requirement of ore at Sindri at present.

In addition to the above production of low grade pyrites, 22 per cent ('S' Agriculture Grade) is also being mined and marketed by the company for reclamation of usar (Alkali soils). The demand of this material is going up.

Rock Phosphate: The company is mining rock phosphate at Maldeota and Durmala mines in Dehra Dun. This material is being marketed as a straight phosphatic fertiliser in acidic soils situated in the States of Kerala, Karnataka, Tamil Nadu, Orissa, Bengal, Assam, Uttar Pradesh, Himachal Pradesh etc. The demand for phosphate is growing year after year. The sales during 1981-82 was about 58,100 tonnes.

Saladipura Production-cum-Exploratory Mining Project: Exploratory work for exploitation of pyrites deposit is being undertaken.

Financial: The turn over of the company during 1981-82 was Rs. 69.00 million and profit during 1981-82 was about Rs. 2.00 million.

Mg. Director: T. N. Jaggi.

Radio & Electricals Mfg. Co. Ltd., P. B. No. 2606, Mysore Rd., Bangalore 560026. (A subsidiary of Bharat Heavy Electricals Ltd.)

Products Manufactured: Single & Polyphase electricity meters, water meters, paper, electrolytic and polyster capacitors.

Rail India Technical & Economic Services Ltd. New Delhi House, 27, Barakhamba Rd., New Delhi 110001.

Rajasthan Atomic Power Project (See Chapter on "Atomic Energy".)

Rashtriya Chemicals & Fertilisers Ltd. (RCF), Chembur, Bombay 400074

Responsible for the operation of Trombay Fertilizer Complex and two giant fertilizer plants based on Bombay High Gas at Thal in Raigad Dist. The company has its full fledged R&D Centre, Training Institute for development of human resources with Marketing operations in the Western & Southern Regions of the country. It produces most of industrial products which are used as intermediaries for life saving drugs and pesticides etc.

Chairman & Mg. Director: Duleep Singh.

Rehabilitation Industries Corpn. Ltd., 25, Free School St., Calcutta 700016.

Functions: Manufacturing and trading of consumer items by creating employment opportunities through industries for the displaced persons from Bangladesh and to the migrants from West Pakistan (who have entered Indian territory as a result of the conflict with Pakistan), repatriates from Burma and Sri Lanka and persons of Indian origin migrated from other countries with the intention of permanently settling in India.

Richardson & Cruddas (1972) Ltd., *Head Office:* Byculla Ironworks, Bombay 400008. *Branch Offices & Works:* L.B. Shastri Marg, Mulund, Bombay 400080; Post Box No. 1276, Madras 600001; MIDC Ind. Estate, Hingna Road, Nagpur 440016.

Liaison Offices: Surya Kiran, K. Gandhi Marg, New Delhi 110001; Hindustan Bldgs., 4, Chittaranjan Avenue, Calcutta 7000[illegible].

Established in 1858, this company became a wholly owned Government of India Undertaking from 1-4-1972.

Product Lines: Byculla: Fabricated steel structures, points & crossings, rubber & sugar machinery and grey iron castings; Mulund: pressure vessels, heat exchangers & chemical processing equipment; Madras: Fabricated steel structures, refrigeration equipments and sanitation & public health engineering, India Mark-II Deepwell handpumps; Nagpur: Transmission line & Microwave Towers, Railway electrification structures.

Rural Electrification Corpn. Ltd., D.D.A. Bldg., Nehru Place, New Delhi 110019.

Functions: (i) To finance rural electrification schemes; *(ii)* To subscribe to special rural electrification bonds that may be issued by the State Electricity Boards; *(iii)* To promote and finance rural electric co-operatives; *(iv)* To administer the funds received from the Government of India and other sources as grants or otherwise.

Chairman-cum-Mg. Director: M. Venkataratnam.

Salem Steel Plant, SA-150, Rly. West Colony, Salem 636005, Tamil Nadu. (Refer to Steel Authority of India in this list and see also the chapter on Steel Industry).

Sambhar Salts Ltd., Badnor House, Bhagwandas Road, Box No. 146, Jaipur.

(A subsidiary of Hindustan Salts Ltd.)

Scooters India Ltd., P. B. 1, P. O. Sarojininagar, Lucknow 226008.

Commenced production in February, 1975 with present rated capacity 80,000 two-wheeler Vijai Super scooters and 2,400 three-wheelers per annum.

Semiconductor Complex Ltd., Phase VIII, S. A. S. Nagar (Mohali) 160051. Rupan Dist. (Punjab State).

Shipping Corpn. of India Ltd., *Registered Office:* Shipping House, 245, M. Cama Road, Bombay 400021. *Branch Offices:* Shipping House, 13, Strand Road, Calcutta 700001; Chandralok Bldg., Janpath, New Delhi 110001; Renmar House, Kilindini Road, P.B. 82364, Mombasa; 24, St. Mary Axe, London, EC3 A8DE.

Number of Vessels: Cargo vessels 75, passenger-cum-cargo 6, bulk carriers 23, timber carriers 2, bulk coal carriers 2, tankers 22, combination carriers 10, very large crude carriers 2, total 142.

Total g.r.t. 3 million; d.w.t. 5 million.

Vice-Chairman & Mg. Director: Vice-Adm. R. K. S. Ghandhi, PVSM.

Smith Stanistreet Pharmaceuticals Ltd., 18, Convent Rd., Calcutta 700014.

State Chemicals & Pharmaceuticals Corpn. of India Ltd. (CPC), Chandralok, 36, Janpath, New Delhi 110001.

(A subsidiary of State Trading Corpn. of India.)

State Farms Corpn. of India Ltd., Beej Bhavan, C. T. O. Bldg., Pusa Complex, New Delhi 110012.

Established in 1969 to administer the Central State Farms.

Functions: Production of quality seeds of high-yielding varieties of wheat, paddy, maize, bajra and jawar; advises on soil conservation, reclamation and development of waste and forest land, consultancy services on farm mechanisation.

Chairman: R. C. Vikal; *Mg. Director:* R. C. Arora.

State Trading Corpn. of India Ltd., Chandralok, 36, Janpath, New Delhi 110001.

Functions: To broaden and enlarge the scope of Indian exports and to arrange for essential imports on an economical basis. For this purpose S.T.C. has 17 offices abroad and 15 in India.

Chairman: P. C. Luther.

Steel Authority of India Ltd. (SAIL), Ispat Bhawan, Lodhi Rd., New Delhi 110003.

SAIL, a Govt. of India Enterprise under the Ministry of Steel & Mines, controls all the integrated public sector steel plants at Bhilai, Bokaro, Burnpur, Durgapur, Rourkela. With the present combined annual capacity of 9.4 million tonnes of ingot steel, which accounts to 81 per cent of country's total installed capacity, SAIL provides a strong base for India's industrial development. The company accounts for an investment of over Rs. 41,100 million and has a gross turnover of over Rs. 26,420 million per annum. Besides controlling all the public sector integrated steel plants, SAIL, has an Alloy Steels Plant at Durgapur, Special Steel Plant at Salem in Tamil Nadu and also holds 40 per cent shares in the Visvesvaraya Iron and Steel Ltd. at Bhadravati, a Govt. of Karnataka Enterprise, Vijaynagar Steel Project at Vijaynagar in Karnataka is also presently controlled by SAIL.

Subsidiaries: 1. Indian Iron & Steel Company Ltd. (IISCO); 2. IISCO Stanton Pipe & Foundry Company Ltd.

Chairman: S. Samarapungavan.

(See also under Govt. of India Personnel.)

Sukinda Nickel Project (A joint enterprise of Govt. of India and Orissa State Govt.), 9, Forest Park, Bhubaneshwar 751009, Orissa.

Tannery and Footwear Corpn. of India Ltd., 13/400, Civil Lines, Kanpur 208001.

Functions: It manufactures boot/shoes of all types for civilian and military use under trade name "FLEX". It also manufactures leather, leather goods, leather board, industrial leathers, adhesives, shoe finishes and myrobalan extract powder for tanning and water purification.

The Corpn. has the capacity to manufacture about 47.2 million pairs of footwear per shift per annum and has a network of wholesale and retail dealers all over India for the sale of its products.

Mg. Director: V. N. Shrivastav.

Tarapur Atomic Power Project (See Chapter on 'Atomic Energy').

Tea Trading Corpn. of India Ltd., 7, Wood Street, 2nd Floor, Calcutta 700016.

Chairman & Mg. Director: B. K. Goswami, I.A.S.

Telecommunications Consultants India Ltd., *Head Office:* Chiranjiv Tower, 43, Nehru Place, New Delhi 110019.

The company provides consultancy services and undertakes turnkey projects in different fields of telecommunications e.g. telephone switching, long distance transmission, outdoor plant and cables comprising techno-economic feasibility studies, survey, planning, installation commissioning and maintenance of all types of local telephone and long distance systems, cable networks and PCM systems on junction cables. Network management in large metropolitan cities; long distance telecommunications including modern radio relay systems, satellite, microwave, U.H.F., H.F., V.H.F., modern coaxial systems, overhead and underground carrier systems. Other specialised services include telex, paging systems, structural, architectural design of telecommunication centres including airconditioning, contract administration, computerised billing for large telephone systems etc. etc.

Chairman & Mg. Director: M. P. Shukla; *Gen. Managers:* Y. L. Agarwal *(Technical);* K. K. Mathur *(Switching);* L. C. Kapur *(Projects).*

Trade Development Authority, Bank of Baroda Bldg., 16, Sansad Marg, New Delhi 110001.

Established to promote selective development of exports of non-traditional products. In discharge of this function, TDA identifies technically competent and commercially viable production units in large, medium and small sectors in the expansion of export oriented production facilities, offers a package of services from the concept of an export oriented industry to its ultimate export marketing, undertakes product development/adaptation and helps raise the technological levels of selected industrial exports through joint ventures.

Its current product range includes selected engineering, plastics and consumer items.

It provides entrepreneurial guidance, handles enquiries and disseminates information in foreign trade to exporters and other interested parties. Besides regional offices at the Air India Bldg., Nariman Point, Bombay 400021; at 8, Camac St., Calcutta 700017; at 'Laxmi', 1-A, Ulsoor Road, Bangalore-560042 and at C/o. U. P. Export Corporation Ltd., B-27, Sarvodaya Nagar, Kanpur. It has also set up foreign offices to provide on-the-spot personalised services at Frankfurt, New York, Tokyo, Monrovia and Stockholm.

Executive Director: D. W. Telang.

Trade Fair Authority of India, Pragati Maidan, New Delhi 110001.

TFAI, a national agency to organise Indian Trade Fairs and exhibitions at home and abroad, is an autonomous, non-profit making Central Govt. undertaking and also helps export promotion through the printed word. During 1982-83, it organised 38 events abroad; participation in 34 international fairs/exhibitions and 4 exclusive Indian exhibitions abroad. At home, it organised the India International Trade Fair (IITF '82) at Pragati Maidan, besides 7 specialised Commodity Fairs. During 1983-84, it is scheduled to organise Indian participation in 47 international general fairs/specialised commodity fairs including 5 wholly Indian Exhibitions abroad. The major domestic event of the year, India International Trade Fair, 1983, was organised during November 14-27, 1983 at Pragati Maidan to coincide with the Commonwealth Heads of Government Meeting. Besides, there are plans for holding 13 specialised commodity fairs.

Chairman: Mohammad Yunus.

Triveni Structurals Ltd., Naini 211010, Allahabad Dist., Uttar Pradesh.

It is a joint enterprise of Government of India and Messrs Voest. Alpine Linz, Donau, Austria. The main functions are: Building structures, towers, bridges, pressure vessels, penstocks and storage tanks, crucibles, blast furnace and plate work, hydraulic structures, cranes, mechanical equipment, material and passenger ropeways, compost plants, water treatment plants, cement and dairy plant equipments.

Tungabhadra Steel Products Ltd., P.O. Tungabhadra Dam 583225, Bellary Dist., Karnataka. It is a joint venture of Govt. of India and Govts. of Karnataka and Andhra Pradesh.

Production: Steel structures, including gates, hoists, gantries, penstocks and rubber seals required for river valley projects, cranes, pressure vessels, heavy structurals and galvanised high tension transmission line towers.

A galvanising plant with a capacity of 3,000 tonnes per annum working in a single shift has been commissioned. The company has its own design branch, grey iron foundry, rubber seal section, X-ray and photographic section.

Chairman: M. R. Naidu; *Mg. Director:* Y. Adinarayana Sastri.

United India Insurance Co. Ltd., 24, Whites Road, Madras 600014.

Unit Trust of India, Head Office: 13, Sir Vithaldas Thackersey Marg, New Marine Lines, Bombay 400020.

Regional Offices: 13, Sir Vithaldas Thackersey Marg, Bombay 400020; Gulab Bhavan (Rear Block), 2nd Floor, 6, Bahadur Shah Zafar Marg, New Delhi 110002; 4, Fairlie Place, Calcutta 700001; Regina Mansion, 46, Second Line Beach, Madras 600001.

Functions: It pools the savings of the community and invests them in securities of various types. To pool the savings, the Trust sells 'units'. All units rank equal for the distribution of income, regardless of when they are acquired. The Trust offers one other important and unique advantage: it is always ready both to sell and buy its units at prices published by it. A unit-holder is thus assured complete liquidity for his investment.

The Trust is exempt from payment of income tax and other taxes on income. Income from units enjoys exemption from income tax upto an overall limit of Rs. 10,000 (Rs. 3,000 is available exclusively for units while Rs. 7,000 is available for units together with certain other specified investments). Investment in units qualify for exemption from wealth tax upto Rs. 0.2 million (Rs. 35,000 is exclusively applicable to units while Rs. 0.165 million is for units together with certain other specified categories of investments.

The Trust paid a dividend of 13.5 per cent for 1982-83 under Unit Scheme 1964.

Chairman: M. J. Pherwani.

Uranium Corpn. of India Ltd., P.O. Jaduguda Mines 832102, Singhbhum Dist., Bihar.

Functions: It is a wholly-owned Government of India enterprise under the Department of Atomic Energy. Its objectives are to provide the uranium requirements for the Atomic Energy Programme of the country. The corpn. is to mine and process uranium ore and other ores and minerals containing uranium in any form. It also produces copper and molybdenum concentrates and magnetite as by-products.

Chairman & Mg. Director: M. K. Batra.

Wagon India Ltd., 10B, Atma Ram House, 1, Tolstoy Marg, New Delhi 110001.

A servicing and co-ordinating agency between the Ministry of Railways, Ministry of Industry and various wagon builders both in public and private sectors

Chairman & Mg. Director: J. N. Luthra.

Water & Power Consultancy Services (India) Ltd., 26, Kasturba Gandhi Marg, New Delhi 110001.

Mg. Director: Vijendra Singh.

Weighbird (India) Ltd., Chartered Bank Buildings, Calcutta 700001.

STATE GOVERNMENT UNDERTAKINGS

The Public Sector covers those undertakings, which are owned or managed by the Government. These are departmental undertakings like the railways and statutory corporations under which come the Damodar Valley Corporation, financial institutions, which cover the Film Finance Corporation, public utility undertakings like transport & electricity, which come under the purview of the Indian Companies Act. Prior to independence, private companies were by far a large controller of most of the industrial & commercial undertakings with the exception of the railways. The Government's 1948 resolution on economic policy projected the ideal of mixed economy where both the private sector and public sector had each an important role to play in the industrial development of the country. But by the 1956 resolution on economic policy the States were entrusted with key national projects.

The following are the undertakings, State-wise:

ANDHRA PRADESH

Agro Pumpsets & Implements Ltd., 10-2-317/3, Vizianagar Colony, Hyderabad 500457.

A marketing and service organisation set up by the A.P. State Agro Inds. Devpt. Corpn. Ltd., with the chief object of standardising oil engines/electric motors manufactured in the State and arranging their supply to the farmers at competitive rates, with good after-sale service facilities. It is also a nodal agency for implementing renewable energy programmes in the State such as biogas, wind energy, solar energy, etc.

Chairman: K. Obayya; *Chief Executive:* V. Bakthavatsalam.

Andhra Pradesh Automobiles Tyres & Tubes Ltd., 1-11-252/52, Motilal Nagar, Hyderabad 500016.

Andhra Pradesh Carbides Ltd., Shivaram Nagar, Kurnool 518002.

Andhra Pradesh Dairy Devpt. Co-op. Fedn. Ltd., Lalapet, Hyderabad 500789.

Andhra Pradesh Electronic Development Corpn. Ltd., Parisrama Bhavanam, Basheer Bagh, Hyderabad 500029.

Andhra Pradesh Fisheries Corpn. Ltd., *Regd. Office:* 8-4-9, Tirumalarao St., Kakinada 533004; *Regional Office:* Tank Bund Rd., Visakhapatnam 533008.

Andhra Pradesh Forest Development Corpn. Ltd., 8-3-952/6 & 7, Punjagutta, Hyderabad 500016.

Andhra Pradesh Govt. Power Alcohol Factory, Shakarnagar 503180, Nizamabad Dist.

Andhra Pradesh Handicrafts Development Corpn. Ltd., Pisgah Complex, Nampally, Hyderabad 500001.

Andhra Pradesh Heavy Machinery & Engg. Ltd., Governorpet, Vijayawada 520002.

Andhra Pradesh Ind. Devpt. Corpn. Ltd., Parisrama Bhavanam, 5-9-58/B, Basheerbagh, P.B. No. 1049, Hyderabad 500029.

Andhra Pradesh Industrial and Technical Consultancy Organisation Ltd., 10-2-289/21, Shantinagar, Hyderabad 500028. (A subsidiary of the Industrial Devpt. Bank of India).

Andhra Pradesh Industrial Infrastructure Corpn. Ltd., 5-9-58/B, Parisrama Bhavanam, Fateh Maidan Rd., Hyderabad 500029.

Andhra Pradesh Mining Corpn. Ltd., 6-3-672, Panja Gutta, Hyderabad 500004.

Functions: Prospecting and commercial exploitation of some of the important minerals in the State such as Barytes, Asbestos, Copper, Black Granite and Clay. Setting up of mineral based industries with the collaboration of private sector.

Andhra Pradesh Rayons Ltd., Kamalapuram Township 506172, Warangal Dist.

Manufacturers of Rayon grade pulp.

Andhra Pradesh Refractories Ltd., 6-3-655/2/4/, Somajiguda, Hyderabad 500004.

Andhra Pradesh Small Scale Ind. Devpt. Corpn. Ltd., 5-10-174, Fateh Maidan Rd., Hyderabad 500004.

Andhra Pradesh State Agro Industries Development Corpn. Ltd., Agro Bhavan, 10-2-3, A. C. Guards, Hyderabad 500004.

Andhra Pradesh State Civil Supplies Corpn. Ltd., 5-9-35/5, Bashir Bagh, Hyderabad 500029.

Andhra Pradesh State Construction Corpn. Ltd., 6-3-1119, Begumpet, Hyderabad 500016.

Andhra Pradesh State Film Devpt. Corpn. Ltd., H. No. 11-5-423/1, Zafarbagh, Lakdi-ka-pool, Hyderabad 500004.
Functions: Estd. in Oct. 1975 to formulate & implement schemes for the devpt. of film industry & fine arts in the State, Granting of loans for the construction of studios & cinema halls, production of documentaries/newsreels of educative & informative value, grants for construction of multi-purpose auditoria etc. etc.,

Andhra Pradesh State Financial Corpn., 5-9-194, Chirag Ali Lane, Hyderabad 500001.

Andhra Pradesh State Irrigation Devpt. Corpn. Ltd., 6-3-789/A, Ameerpet, Hyderabad 500016.

Andhra Pradesh State Non-Resident Indian Investment Corpn. Ltd., Parisrama Bhavanam, Basheer Bagh, Hyderabad 500029.

Andhra Pradesh State Meat & Poultry Development Corpn. Ltd., Parisrama Bhavanam, Basheer Bagh, Hyderabad 500029.

Andhra Pradesh State Police Housing Corpn. Ltd., 'Sumangal', 10-1-1195/2/1, A. C. Guards, Hyderabad 500004.

Andhra Pradesh State Seeds Devpt. Corpn. Ltd., 11-5-471/1, Red Hills, Hyderabad 500004.

Andhra Pradesh State Textile Devpt. Corpn. Pvt. Ltd., Posnett Bhavan, Tilak Rd., Hyderabad 500001.
Functions: To provide various facilities to weavers for producing exportable variety of cloth, undertaking execution of large scale orders of readymade handloom and leather graments for export.

Andhra Pradesh State Warehousing Corpn., D. B. R. Mills, Kavadiguda, Secunderabad 500005.

Andhra Pradesh Steels Ltd., 3-6-111/8, Liberty Rd., Himayatnagar, Hyderabad 500029.

Producers of mild steel, high carbon and spring steel, continuously cast billets.

Andhra Pradesh Travel & Tourism Development Corpn. Ltd., Diamond House, Himayatnagar, Hyderabad 500029.

Government Ceramic Factory, Gudur 524101. Nellore Dist. The Factory produces sanitaryware and L. T. Electrical Insulators.

Hyderabad Allwyn Ltd., Allwyn Bhavan, Sanatnagar, Hyderabad 500018.

Hyderabad Chemicals & Fertilizers Ltd., 10-2-3, A. C. Guards, Hyderabad 500004.

Factory: Maula Ali, Hyderabad 500040.
Manufacturers *Acids:* (1) Sulphuric acid commercial grande, (2) Battery grade acid, (3) Alum ferric, (4) Superphosphate, (5) Mixed fertilizers for all food and cash crops.

Leather Ind. Devpt. Corpn. of Andhra Pradesh Ltd., 3-6-150, Himayatnagar, Hyderabad 500029.

Marine & Communication Electronics India Pvt. Ltd., Parisrama Bhavanam, Hyderabad 500029.

Nizam Sugar Factory Ltd., B-1-174, Fatch Maidan Rd., Khairatabad, Hyderabad 500004.

Prodattur Milk Foods Ltd., House No. 1-8, Plot No. 25, Sadashivnagar, Tarnaka, Hyderabad 500007.

Republic Forge Co. Ltd., Moula Ali, Hyderabad 500040.

The Company manufactures ferrous & non-ferrous forgings of the die as well as open type. Quality forgings are supplied regularly to railways, automobile industry, defence, space science, high pressure vessels, earth moving equipment, fertiliser plants, etc.

Singareni Collieries, P. O. Kothagudem Collieries 507101, Khammam Dist.

Coal is mined from the coal fields at Kothagudem, Yellandu, Manuguru, Belampalli, Mandamari, Ramakrishnapur and Ramagundam. The Coal Chemicals Complex of the collieries is at Naspur in Adilabad District.
Chairman & Managing Director: A. Valliappan.

ARUNACHAL PRADESH

Arunachal Pradesh Forest Corpn. Ltd., Deomali 786629.

ASSAM

Aseb Meter Works, Short Round Rd., Shillong 793001.
An Assam State Electricity Board enterprise. Manufactures single phase house service meters and polyphase meters.

Assam Agro-Industries Devpt. Corpn. Ltd., Ulubari, Gauhati 781007.

Functions: To assist farmers in modernising their cultivation and to supply farm machinery, fertilizers, pesticides, including other agricultural inputs to those farmers. The activities of the Corporation cover the States of Assam, Meghalaya, Tripura, Manipur and Nagaland and the Union Territories of Arunachal Pradesh and Mizoram.

Assam Conductors & Tubes Ltd., Bamuni Maidan, Gauhati 781021.

Assam Financial Corpn., G. S. Rd., Ganeshguri Charali, Gauhati 781005.

Functions: To contribute to the industrialisation of the States of Assam, Meghalaya, Tripura, Manipur and the Union Territory of Mizoram by providing credit (medium and long term) to industries.

Assam Fisheries Development Corpn. Ltd., Pub-Sarania Rd., Chandmari, Gauhati 781003.

Assam Gas Co., Ltd., Duliajan 786602, Dibrugarh Dist. Engaged in collection, processing, transportation and distribution of natural gas through compressors and pipelines. Present capacity: 1.994 MMSCUMD.

Assam Glass Ind. Ltd., Kahlipara, Gauhati 781016.

Assam Govt. Construction Corpn. Ltd., Rupanagar, Gauhati 781005.

Assam Govt. Marketing Corpn. Ltd., Naojan Rd., Uzanbazar, Gauhati 781001

Assam Hills Small Ind. Devpt. Corpn. Ltd., Zoo Rd., Gauhati 781003.

Assam Industrial Devpt. Corpn. Ltd., Zoo Rd., Gauhati 781024.
Functions: To promote major and large industrial projects and render assistance including share participation to entrepreneurs. *Projects under production:* (1) Assam Petro-Chemicals Ltd., at Namrup, (2) Fertichem Ltd. at Gauhati, a Fertilizer Plant, (3) Cachar Sugar Mill Ltd. at Ratabari, Cachar Dist. *Sick industries now under production:* Assam Conductors and Tubes Ltd., at Gauhati, and Chemical Unit of Associated Ind. (Assam) Ltd., at Chandrapur, Gauhati.

Assam Petro-Chemicals Ltd., Namrup 786621.

Assam Plains Tribes Devpt. Corpn. Ltd., Zoo Rd., Gauhati 781003.

Assam Plantation Crops Devpt. Corpn. Ltd., Zoo Rd., Gauhati 781003.

Assam Seeds Corpn. Ltd., Nawjan Rd., Uzanbazar, Gauhati 781101.

Assam Small Industries Devpt. Corpn. Ltd., Bamunimaidan, Gauhati 781021.

Assam Spun Silk Mills Ltd., P. O. Jogi Rd. Nowgong Dist.

Assam State Film Finance & Devpt. Corpn. Ltd., Rabindra Bhawan, Ambari, Gauhati 781001.

Assam State Textbook Production & Publication Corpn. Ltd., Panbazar, Gauhati 781001.

Assam State Textile Corpn. Ltd., Zoo Rd., Bye-Lane, Gauhati 381003.

Assam Tea Corpn. Ltd., G. N. Bordoloi Rd., Chandmari, Gauhati 781003.

Cachar Sugar Mill Ltd., Kannachal Rd., Gauhati 781003.

Fertichem Ltd., AIDC Campus, Zoo Rd., Gauhati 781024.

Meets the fertiliser needs of agriculturists of Assam.

Jyoti Chitraban (Film Studio) Society, Kahilipara, Gauhati 781005.

The basic objective is to encourage private film producers to undertake production of films at the minimum cost.

North Eastern Handicrafts & Handlooms Development Corpn. Ltd., Bora service Stn., G. S. Rd., Gauhati 781007.

North Eastern Industrial & Technical Consultancy Organisation Ltd., (NEITCO), Moniram Dewan Rd., Bamunimaidan, Gauhati 781021. Jointly set up by the Central and State level financial institutions, State development corporations and the leading banks to provide technical, financial & managerial consultancy services for the industrial development of north eastern region of India.
Chairman: C. R. Sen Gupta; *Mg. Director:* P. C. Patnaik.

BIHAR

Arnil Centronics Ltd., S. P. Verma Rd., Patna 800001.

Bacon Factory, Kanke, Ranchi 834007.

Bihar Hill Area Lift Irrigation Corpn. Ltd., Morabadi, Ranchi 834008.

Bihar Mica Syndicate Ltd., P. O. Jhumri Telaiya, Hazaribagh.

Bihar Police Building Construction Corpn. Pvt. Ltd., Mokameh House, Boring Canal Rd., Patna 800001.

Bihar Scooters, P. O. Fatwah 803201. Patna Dist.
A subsidiary of the Bihar State Ind. Devpt. Corpn. Ltd., to manufacture 'Vijeta Supreme' scooters.

Bihar State Agro-Industries Devpt. Corpn. Ltd., Krishi Udyog Bhawan, Sinha Library Rd., Patna 800001.

Bihar State Construction Corpn. Ltd., Boring Canal Rd., Patna 800001.

Bihar State Credit & Investment Corpn. Ltd., Biscomaun Bldg., W. Gandhi Maidan, Patna 800004.

Bihar State Dairy Corpn. Ltd., P. O. Bihar Veterinary College, Patna 800014.

Bihar State Electronics Development Corpn. Ltd., Udyog Bhawan, 2nd Flr., East Gandhi Maidan, Patna 800004.

Bihar State Export Corpn. Ltd., Biscomaun Bldg., West of Gandhi Maidan, Patna 800004.

Bihar State Financial Corpn. Ltd., Fraser Rd., Patna 800001.
Functions: To provide financial assistance for setting up industrial concerns in the State.

Bihar State Food & Civil Supplies Corpn. Ltd., East Boring Canal Road Patna 800 001.

Bihar State Forest Devpt. Corpn. Ltd., 27, Pataliputra, Patna 800013.

Bihar State Handloom, Powerloom & Handicrafts Devpt. Corpn. Ltd., Udyog Bhavan, East Gandhi Maidan, Patna 800004.

Bihar State Industrial Devpt. Corpn. Ltd., Bandar Bagicha, Patna 800001.
Functions: To promote and operate schemes for indl. development of Bihar by aiding, assisting and financing indl. undertakings, medium & large scale sectors, and to enter into financial collaboration for joint working of indl. undertakings.

Bihar State Leather Ind. Devpt. Corpn., Opp. A. N. College, Boring Rd., Patna 800013.

Bihar State Mineral Devpt. Corpn., Raj Hotel, Main Rd., Ranchi 834001.

Bihar State Pharmaceutical & Chemical Development Corpn. Ltd., West Boring Rd., Patna 800001.

Bihar State Small Industries Corpn. Ltd., West Gandhi Maidan, Biscomaun Bldg. (Annex-1), Patna 800004.
Functions: Supply of scarce raw materials along with marketing assistance to S.S.I. units; sale of handloom & handicraft products through emporia; display & marketing of S.S.I. products through trade centre.

Bihar State Sugar Corpn. Ltd., Harihar Bhawan, Boring Canal Rd., Patna 800001.

Bihar State Superphosphate Factory, P.O. Sindri Institute 828123, Dhanbad Dist.
Installed capacity of plants: (*i*) 10 tonnes of single superphosphate per hour; (*ii*) 25 tonnes of 98 per cent sulphuric acid per day. At present the factory produces about 18,000 tonnes of superphosphate a year. A new plant for N.P.K. (granulation) has been installed to produce 36,000 tonnes per annum.

Bihar State Textbook Publishing Corpn. Ltd., White House, Budh Marg, Patna 800001.

Bihar State Textile Corpn. Ltd., D-69, Srikrishnapuri, Patna 800001.

Bihar Water Devpt. Corpn. Ltd., 13, Pataliputra Colony, Patna 800013.

Bokaro Industrial Area Devpt. Authority, Biada Bhawan, Balidih, Bokaro Steel City 827014, Dhanbad Dist.
This Authority provides land/shed and infrastructure facilities to entrepreneurs for setting up small and medium scale indl. units including ancillary industries to Bokaro Steel Ltd., Bharat Coking Coal Ltd., Central Coalfields Ltd. and Fertilizer Corpn. of India Ltd.

Electric Equipment Factory, Tatisilwai, Ranchi 834001.

This factory is a unit of the Bihar State Industrial Development Corporation Ltd.

High Tension Insulator Factory, P.O. Namkum, Ranchi 834010.
This factory has been set up by the Government of Bihar with the technical collaboration of Czechoslovakia. The present installed capacity is 2,400 metric tonnes per annum with the varying range of production as transmission line insulators upto 220 KV bushings and Pin & Post insulators upto 33 KV besides L.T. Pin, shackles and Guy insulators.

North Bihar Industrial Area Devpt. Authority, P.O. Ramkrishna Ashram, Muzaffarpur 843116.

CHANDIGARH

Chandigarh Small Industries Devpt. Corpn. Ltd., 9-A, Madhya Marg, Sector 7-C, Chandigarh 160017.

DELHI

Delhi Financial Corpn., Saraswati Bhavan, E-Block, Connaught Place, New Delhi 110001.
Functions: To stimulate industrial growth, the Corporation advances loans to industrial units set up or to be set up in the Union Territories of Delhi and Chandigarh.

Delhi Small Industries Devpt. Corpn., Ltd., A-3/4, State Emporia Bldg., Baba K. Singh Marg, New Delhi 110001.

Delhi State Civil Supplies Corpn. Ltd., 1, Kripa Narain Mrg., Alipur Rd., Delhi 110054.

Delhi State Industrial Devpt. Corpn. Ltd., N-Block, Bombay Life Bldg., Con. Circus, New Delhi 110001.

Delhi Tourism Development Corpn., N-Block, Connaught Place, New Delhi 110001.

New Okhla Industrial Development Authority, 17, Barakhamba Rd., New Delhi 110001.

GOA

Economic Devpt. Corpn. of Goa, Daman & Diu Ltd., Shree Saraswathi Mandir Bldg., 18th June Rd., Panaji 403001.
Subsidiary Companies: Goa Electronics Ltd., Margao, Supplies ATQ coils to I.T.I., Bangalore; has set up its TV wing at Mapusa as an ancillary to ECIL, Hyderabad. Goa Time Movers Ltd., to assemble 2.5 lakh hand-wound watches annually. Goa Handicrafts, Rural & Small Scale Inds. Devpt. Corpn., Panaji, for distribution of raw materials & maktg. assistance. Goa Auto Accessories Ltd., Onda, to manufacture brake shoe assemblies. *Jt. Sector Projects:* Goa Antibiotics & Pharmaceuticals Ltd., Tuem, Pernem. Automobile Corpn. of Goa Ltd., Onda, to manufacture automobile pressed parts/components. Goa Telecommunications & Systems Ltd. to manufacture 3 channel open wire telecommunications equipment.

Goa Antibiotics & Pharmaceuticals Ltd., E-2, Ramakant Apartments, A. Albuquerque Rd., St. Ines, Panaji 403001.

Kadam Transport Corpn. Ltd., East Wing, Bus Stand Bldg., Near Nehru Bridge, Panaji 403001.

GUJARAT

Gujarat Agro-Foods Ltd., Khet Udyog Bhawan, Navrangpura, Ahmedabad 380014. (A subsidiary of GAIC).

Gujarat Agro-Industries Corpn. Ltd. (GAIC), Khet Udyog Bhavan, Opp. High Court, Navrangpura, Ahmedabad 380009.

Gujarat Agro-Marine Products Ltd., Khet Udyog Bhawan, Navrangpura, Ahmedabad 380014.

Gujarat Agro-Oil Enterprises Ltd., Opp. High Court, Navrangpura, Ahmedabad 380009.

Gujarat Alkalies And Chemicals Ltd., Yashkamal, Sayaji Gunj, Vadodara 390005.
Plant located at P.O. Petrochemicals 391346, Vadodara Dist. Annual capacity 70,425 MT of Caustic Soda, 64,000 MT of Chlorine and 29,000 MT of Mercury Free Hydrochloric Acid. GACL has also commenced commerical production of sodium cyanide. The project for the manufacture of methyl chloride, methylene chloride, chloroform & carbon tetrachloride of 16500 MT per year is expected to go into production in 1985.
Chairman: H. R. Patankar.

Gujarat Carbon Ltd., Harikripa, Alkapuri, Vadodara 390005.

Gujarat Communications & Electronics Ltd., Express Bldg., R. C. Dutt Rd., Vadodara 390005.
To promote and develop the electronic industry in the State by manufacture of professional grade electronic equipments. The products of the Company include Navigational Aids, Communciation Equipment, Rural Radio Telephones, Pulse Code Modulation Systems, Video Tape Recorders and equipment for Low Cost TV Broadcast Systems, Video Display and Data Processing Systems, Data Collection Platforms and Flood Forecasting Systems.
Chairman: Brig. Pessie Madan; *Mg. Director:* Maj. Gen. J. C. Ahluwalia.

Gujarat Dairy Devpt. Corpn. Ltd., Sector 16, Gandhinagar 382016.
Chairman: Prafull H. Bhatt; *Mg. Director:* G. Ghosh.

Gujarat Industrial Devpt. Corpn., Fadia Chambers, Ashram Rd., Ahmedabad 380009.

Gujarat Industrial Investment Corpn. Ltd., Chunibhai Chambers, Behind Dipali Cinema, Ashram Rd., Ahmedabad 380009.

Gujarat Industrial & Technical Consultancy Organisation Ltd., Neptune Towers, Opp. Nehru Bridge, Ashram Rd., Ahmedabad 380009.

Gujarat Mineral Devpt. Corpn. Ltd., Khanij Bhavan, Ashram Rd., Ahmedabad 380009.
Functions: To undertake mining and development of minerals in Gujarat. The Corpn. has already set up 7 projects at Vadodara, Surendranagar, Jamnagar, Kutch, Banaskantha & Broach Dists. Minerals marketed: Fluorspar, bauxite, silica sand & lignite.
Chairman: Narendra I. Bhuva.

Gujarat Narmada Valley Fertilizers Co. Ltd., P.O. Narmadanagar 392015, Bharuch Dist.

Gujarat Nylons Ltd., Mistry Chambers, Khanpur, Ahmedabad 380001.

Gujarat Sheep & Wool Devpt. Corpn. Ltd., "Shreekunj", Opp. Gujarat Navrangpura Telephone Exchange, Ahmedabad 380006.

Gujarat Small Industries Corpn. Ltd., Bhagwati Chambers, Opp. Gujarat Vidyapith, Ashram Rd., Ahmedabad 380009.

Gujarat State Construction Corpn. Ltd., G. 1/163, Sector-30, Gandhinagar 382030.

Gujarat State Export Corpn. Ltd., Gujarat Chambers Bldg., Near Natraj Theatre, Ahmedabad 380009.

Gujarat State Financial Corpn., Jaldarshan Bldg., Ashram Rd., P.O. Box No. 4030, Ahmedabad 380009.
Chairman: R. D. Shah; *Mg. Director:* K. D. Buddha.

Gujarat State Forest Development Corpn. Ltd., Vangana, 78, Alkapuri, Vadodara 390005.

Gujarat State Handicraft & Handloom Devpt. Corpn. Ltd., Opp. Sanyas Ashram, Ashram Rd., Ahmedabad 380009.

Gujarat State Machine Tools Corpn. Ltd., P. O. Vartej 364060. (Vadodara Dist.)

Gujarat State Road Transport Corpn., Vahan Vyavahar Bhavan, Ahmedabad 380022.

Gujarat State Rural Devpt. Corpn. Ltd., Capital Project Bldg. Annexe, Sector 16, Gandhinagar 382016.

Gujarat State Seeds Corpn. Ltd., Sector 16, Gandhinagar 382016.

Gujarat State Textile Corpn. Ltd., Preema Chambers, Near Mithakhali Circle, Sardar Patel Nagar Rd., Ellis Bridge, Ahmedabad 380006.

Gujarat State Warehousing Corpn., Anand, Shanti Sadan Est., Opp. Dinbai Tower, Mirzapur, Ahmedabad 380001.
Chairman: Narendrasinh Jhala; *Mg. Director:* V. P. Shah.

Gujarat Tractor Corpn. Ltd., Vishwamitri, Vadodara 390001.

Gujarat Tyres Ltd., C/o G.I.I.C. Ltd., Mistry Chambers, Khanpur, Ahmedabad 380001.

Gujarat Water Resources Devpt. Corpn. Ltd., Danapith, Ahmedabad 380001.

Polymers Corpn. of Gujarat Ltd., P.O. Petrofils 391346, Vadodara Dist.
Functions: To manufacture (1) Methyl Methacrylate Monomer (MMA), (2) Polymethyl Methacrylate (PMMA) Sheets and (3) Polymethyl Methacrylate (PMMA) Pellets in technical collaboration with Mitsubishi Rayon Co. of Japan & Methacrylic Acid
Chairman: H. K. Khan; *Mg. Director:* V. Charandas.

Tourism Corpn. of Gujarat Ltd., H. K. House, Off Ashram Rd., Ahmedabad 380009.

HARYANA

Haryana Agro-Industries Corpn. Ltd., S.C.O.-825-26, Sector 22-A, Chandigarh 160022.

Haryana Breweries Ltd., *Regd. Office:* 49, Kms. Stone, G. T. Rd., Murthal 131027, Sonepat Dist.

Haryana Concast Ltd., P.O. Satrod 125044, Hissar Dist.

Haryana Dairy devpt. Corpn. Ltd., S.C.O. Nos. 127-128, Sector 17C, Chandigarh 160017.

Haryana Financial Corpn., 17, 18, 19, Sector 17A, Chandigarh 160017.

Haryana Land Reclamation & Devpt. Corpn. Ltd., S.C.O. Nos. 32, 33, 34, Sector 17C, Chandigarh 160017.

Haryana Minerals Ltd., Narnaul 123001.

Haryana Seeds Devpt. Corpn. Pvt. Ltd., S.C.O. 169-170, Sector 8-C, Chandigarh 160008.

Haryana State Industrial Devpt. Corpn. Ltd., P.B. 22, S.C.O. Nos. 40 & 41, Sector 17A, Chandigarh 160017.

Haryana State Minor Irrigation (Tube Wells) Ltd., S.C.O. Nos. 66-67 Bank Square, Sector 17-B, Chandigarh 160017.

Haryana State Small Industries & Export Corpn. Ltd., Flat No. 104-105, Sector 17-D, Chandigarh 160017.
Functions: To export quality goods at competitive prices such as handlooms, handicrafts, automobile parts, bicycles, machine tools, industrial fasteners, laboratory instruments, leather goods, diesel engines etc. etc.

Haryana Tanneries Ltd., S.C.O. No. 2A, Sector 7-C, Chandigarh 160017.
(*Factory:* Hansi Rd , Jind).

Haryana Tourism Corpn. Ltd., S.C.O. Nos. 53-55, Rattan Bldg., Sector 17D, Chandigarh 160017.

HIMACHAL PRADESH

Himachal Pradesh Agro-Industries Corpn. Ltd., Summer Seat, Shimla 171001.
Functions: To establish, develop and promote schemes relating to horticultural produce and agro-based industries in the State. To develop marketing infrastructure, the Corpn. has formed a subsidiary company: H.P. Horticultural Produce Marketing & Processing Corpn. P. Ltd.

Himachal Pradesh Horticultural Produce Mktg.& Processing Corpn. Ltd., "Nigam Vihar", Shimla 171002.

Himachal Pradesh Mineral & Industrial Devpt. Corpn. Ltd., "Himrus", Near Himland Hotel, Shimla 171001.

Himachal Pradesh State Forest Corpn. Ltd., Willow Bank, The Mall, Shimla 171001.

Himachal Pradesh State Handicraft and Handloom Corpn. Ltd., Rhagwati Niwas, Sanjauli, Shimla 171006.

Himachal Pradesh State Small Industries & Export Corpn. Ltd., Kishore Bhavan, The Mall, Shimla 171001.

Himachal Pradesh Tourism Devpt. Corpn. Ltd., Ritz Annexe, Shimla 171001.

Himachal Wood Processors Ltd., Kishore Bhavan, The Mall, Shimla 171001.

Himachal Worsted Mills Ltd., "Himrus", Cart Rd., Shimla 171002.

Himachal Fertilizers Ltd., Nigaum Vihar, Cart Rd., Shimla 171002.

Nahan Foundry Ltd., Nahan 173001, Sirmur Dist.
Production consists of improved type of sugar-cane crushers, bullock as well as power driven, wheat threshers, mono-block pumps, electric motors from 3 h.p. to 15 h.p., portable power ghanis, gobar gas stoves & C.I. castings to buyers' specifications.

Rosin & Turpentine Factory, Nahan 173001, Sirmur Dist
From crude resin, the factory manufactures turpentine oil grade II (ISI) and rosin high grades of international repute. The gum of pine trees is obtained from forests of Himachal Pradesh. It also manufactures high quality varnish and phenyl.

JAMMU & KASHMIR

Government Silk Weaving Factory, Raj Bagh, Srinagar 190001.
One of the biggest silk weaving factories in India producing quality silk fabrics out of 100 per cent pure univoltine Kashmir silk.

Government Woollen Mills, Srinagar 190001.
The average annual production on the basis of one shift working is one hundred thousand metres.

Himalayan Wool Combers Ltd., Bari Brahmana 181133. Jammu.

Jammu & Kashmir Bank Ltd., Residency Rd., Srinagar 190001.

Jammu & Kashmir Cements Ltd., The Band, Srinagar 190001.

Jammu & Kashmir Handicrafts (Sales & Export) Corpn. Ltd., Exporium Bldg., Sheerwani Rd., Srinagar 190001.

Jammu & Kashmir Ind. Ltd., Stone Bldg., Old Secretariat, Srinagar 190001.
The Company runs woollen mills, silk wvg. factories, leather factory, rosin factories, joinery mills, pharmaceutical works, knitting factory and silk filatures.

J. & K. Minerals Ltd., The Bund, Srinagar 190001.
This Orgn. is engaged in extraction of coal, gypsum, lignite, limestone, marble, borax and sulphur in the State. Besides, it runs a mini cement plant of 60 TPD capacity and two prestressed concrete factories manufacturing PC poles, spun pipes, pressed tiles, hollow blocks, PC beams, fencing posts, terrazzo tiles in the State.

Jammu & Kashmir Projects Construction Corpn. Ltd., Jallu Bldg., New Secretariat Rd., Srinagar 190001.

Jammu & Kashmir State Agro Ind. Devpt. Corpn. Ltd., Barzulla, Srinagar 190008.

Jammu & Kashmir State Financial Corpn., SFC House, Durga Nag Rd., Post Box 8, Srinagar 190001, Auqaf Bldg., Veer Marg, P.B. No. 14, Jammu 180001.
Chairman: Abdul Rahim Rather; *Mg. Director:* Mohammad Amin

Jammu & Kashmir State Industrial Devpt. Corpn. Ltd., Drabhu House, Ram Bagh, Srinagar 190001.
Chairman: S. Rafiq Hussain Khan; *Mg. Director:* B. R. Singh.

Jammu & Kashmir Tourism Devpt. Corpn. Ltd., Tourist Reception Centre, Srinagar 190001.

KARNATAKA

Canara Fertilizers & Chemicals Ltd., Hariniwas, 36, Cunningham Rd., Banglaore 560001.

Chitradurga Copper Co. Ltd., 16/1, Ali Asker Rd., Bangalore 560052.
The company's copper mine is situated near Ingaldhal village, 8 kms. south of Chitradurga town and is known as Ingaldhal Copper Mine producing copper concentrates.
Mg. Director: B. Ramachandraraj Urs.

Government Silk Weaving Factory, Mananthody Rd., Mysore 570008.
The factory is engaged in the manufacture of high grade 100 per cent pure silk fabrics manufactured out of rereeled filature silk.

Hutti Gold Mines Co., Ltd., P.O. Hutti 584115, Via Raichur.
The current production is at the rate of 2,04,000 tonnes of ore treated per annum with a recovery of 973 kgs. of gold due to shortage of power supply.

Karnataka Agro-Industries Corpn. Ltd., Hebbal, Bangalore 560024.
Functions: Supply of agricultural machines on hire basis/manufacture and sale of agricultural implements and fruit products/procurement and distribution of tractors, trailers, agricultural implements and agricultural inputs like fertilisers, seeds and pesticides/promote agro-based industries.
Subsidiaries: 1. Karnataka State Agro Corn Products Ltd., Hebbal, Bangalore 560024. 2. Karnataka State Compost Development Corpn. Ltd., P.O. Singasandra, Bangalore. 3. Mysore Tobacco Co. Ltd., 17, Richmond Rd., Bangalore 560025.

Karnataka Backward Classes & Minorities Development Corpn. Ltd., 89/1, Narasamma Commercial Complex, J.C. Rd., Bangalore 560002.

Karnataka Cashew Development Corpn. Ltd., No. 6, Kumara Park East, Bangalore 560001.

Karnataka Dairy Devpt. Corpn. Ltd., 'Poornima', 22, J. C. Rd., 1 Cross, Bangalore 560027.

Karnataka Film Ind. Devpt. Corpn. Ltd., 27, Sri Sai Sudha, Palace Lower Orchard, Bangalore 560003.

Karnataka Fisheries Devpt. Corpn. Ltd., Hoige Bazar, Mangalore 575001.
Functions: Owns 5 ice-cum-cold storages, freezing plant, fish meal plant, 6 insulated vans, 3 purse-seiners, 4 carrier boats; processes 1000 tons of frozen fish products for export and inland mktg. under 'Cold Chain' scheme; mktg. fresh fish landed by the purse-seine boats at Mangalore & Gangolly.
Chairman: T. P. Issar; *Mg. Dir:* B. Chandrasekhar.

Karnataka Food & Civil Supplies Corpn. Ltd., E-Block, Combined Administrative Bldg. Complex, Kempegowda Rd., Bangalore 560009.

Karnataka Forest Plantations Corpn. Ltd., 6, Kumara Park East, Bangalore 560001.

Karnataka Handloom Devpt. Corpn. Ltd., 8, Cunningham Rd., Bangalore 560052.

Karnataka Implements and Machineries Co. Ltd., Mysore Rd., Bangalore 560026.
It manufacturers 1. Heavy duty trailers from 20 tonnes to 200 tonnes capacity; 2. Insulator Pins and Ball Pins; 3. Wheat washing machines; 4. Road Rollers and construction machinery; 5. Farm machinery, tools and implements; 6. Solar cookers etc. Also undertakes turn key projects for setting up of implements factory in India and abroad.

Karnataka Industrial Area Devpt. Board, Rashtrothanaparishat Bldg., No. 14/3, Nrupathunga Rd., Bangalore 560002.

Karnataka Land Army Corpn. Ltd., 22, Cubbon Rd., Bangalore 560001.
Undertakes all kinds of rural devpt. work by providing direct employment to the unemployed & under employed rural population; also provides trg. to the rural youth in technical trades to become self-reliant.
Chairman & Mg. Dir: Brig. G. M. S. Mallappa.

Karnataka Leather Industries Development Corpn. Ltd., No. 14, 'Lakshmi Bldg', J. C. Rd., Bangalore 560002.

Karnataka Power Corporation Ltd., Bharatiya Vidya Bhavan, Race Course Road, Bangalore 560001.
The Corpn. owns Sharavati & Bhadra Power Stns. The Linganamakki Dam Power House of Sharavati Project and four units of Kalinadi Hydro Electric Project have been completed. In the 6th Plan it is proposed to take up Kalinadi Stage II and complete Varahi & RTPS.
Chairman: R. Gundu Rao; *Mg. Director:* A. M. Moses.

Karnataka Scheduled Castes & Scheduled Tribes Devpt. Corpn. Ltd., 5, Palace Rd., Bangalore 560001.

Karnataka Silk Industries Development Corpn. Ltd., IV Flr., P.U. Bldg., M. G. Rd., Bangalore 560001.

Karnataka Silk Marketing Board Ltd., Mysugar Bldg., J. C. Rd., Bangalore 560002.

Karnataka Soaps & Detergents Ltd., P. Box No. 5531, Rajajinagar, Bangalore 560055. Sandalwood Oil Divisions at Mysore & Shimoga.

Karnataka State Agro-Corn Products Ltd., Bellary Rd., Hebbal, Bangalore 560024. (Branches at Mysore & Belgaum).
The Company has established a maize milling plant for converting commercial hybrid maize into Soji, Maida, Grits, Flour, Germs, Semolina, Bran, etc., and also a plant to produce cattle and poultry feeds. It has also set up energy food mfg. units at Mysore, Belgaum, Chitradurga, Raichur and another unit will be set up in Bangalore soon.
Chairman: B. G. Basavana Gowda.

Karnataka State Agro-Seeds Corpn. Ltd., 10, Ali Askar Rd., Bangalore 560052.

Karnataka State Construction Corpn. Ltd., 20/1, Railway Parallel Rd., Kumar Park West, Edward Rd., Bangalore 560020.

Karnataka State Electronic Devpt. Corpn. Ltd., 'Emlyn Haven', 30, Race Course Rd., Bangalore 560001.

Karnataka State Financial Corpn., 25, M. Gandhi Rd., Bangalore 560001.
Chairman: S. K. Warrior; *Mg. Director:* B. S. Patil.

Karnataka State Forest Ind. Corpn. Ltd., 32/2, Cresent Rd., Bangalore 560001.
Functions: To establish industries based on forest produce.
Chairman: C. T. Benjamin; *Mg. Director:* S. C. Thippeswamy.

Karnataka State Handicrafts Devpt. Corpn. Ltd., Webbs Complex. 26, M. Gandhi Rd., Bangalore 560001.
Functions: The Corpn. is running handicrafts emporia under the name "CAUVERY" at Bangalore, New Delhi, Agra, Calcutta, Madras, Mysore, Mangalore, Gulbarga, Hubli, Belgaum & Ramanagaram.
The Corpn. has also started production centres/craft complexes for high quality sandalwood carving, bronze castings, bidriware, lacquerware, wood carving and potteryware. Financial, technical and marketing assistance are provided to artisans. The Corpn. is also undertaking export of handicrafts.
Mg. Director: Tara Ajai Singh.

Karnataka State Industrial Investment & Devpt. Corpn. Ltd., "MSIL House", 36, Cunningham Rd., Bangalore 560052.
Chairman & Mg. Director: K. S. N. Murthy.

Karnataka State Small Industries Devpt. Corpn. Ltd., Administrative Office Bldg., Ind. Estate, Rajaji Nagar, Bangalore 560044.

Karnataka State Tourism Devpt. Corpn. Ltd., 10/4, Kasturba Rd., Bangalore 560001.

Karnataka State Veneers Ltd., Regd. Office: Plywood Colony, Dandeli 581325. *Factory:* Kavachur, P. O. Siddapur 581355, Uttar Kannada.
Chairman: C. T. Benjamin; *Mg. Director:* B. M. Sapat.

Karnataka Vidyuth Karkhane Ltd., P. B. 2610, Mysore Rd., Bangalore 560026.
Main Products: Transformers in various capacities and survey instruments; will shortly manufacture aluminium foil wound transformers in collaboration with Westinghouse, U.S.A.

Karnataka Woollens Ltd., III Flr., Blumoon Blocks, M. G. Rd., Bangalore 560001.

Mahaboob Shahi Kulburga Mills, Gulburga 585101.
A unit of National Textile Corpn. (Andhra Pradesh, Karnataka, Kerala and Mahe) Ltd., the mill runs 35,000 spindles and 606 looms with processing and printing sections.

Mysore Chrome Tanning Co., -Ltd., G.E.F. Post, Mysore Rd., Bangalore 560026.
The company manufactures all kinds of chrome upper leathers, sole leathers, besides manufacturing leather goods.
Chairman: J. Alexander, I.A.S.; *Mg. Director:* B. N. Vijayakumar.

Mysore Cosmetics Ltd., Govt. Soap Factory Bldgs., Bangalore 560055.

Mysore Lac & Paint Works Ltd., P. B. 82, Mysore 570001.
The factory manufactures paints, varnishes, duplicating & indelible inks, sealing wax and other allied products.

Mysore Match Co. Ltd., B. H. Rd., Shimoga 577401.

Mysore Minerals Ltd., 39, M. Gandhi Rd., Bangalore 560001.
The Company is engaged in exploration, mining/quarrying and marketing of the following: Bauxite, Chromite, Iron Ore, Manganese Ore, Aluminous Clay, China Clay, Dolomite, Feldspar, Limestone, Soapstone and Ornamental Stones.

Mysore Sales International Ltd., Hariniwas, 36, Cunningham Rd., Bangalore 560001.

Mysore Sugar Co. Ltd., Sir J. Wadiyar Rd., Bangalore 560002.

NGEF Ltd., P. Bag No. 3876, Bangalore 560038.
Main Products: Distribution, Power & EHV Transformers, AC Motors, DC Machines, Alternators, HT & LT Switchgear, Silicon Power Diodes, Power Rectifiers, Thyristor Convertors etc. Also undertakes turnkey electrification projects.

Technical Consultancy Services Organisation of Karnataka, Dte. of Inds. & Commerce, 14/3A, Rashtrothana Parishat Bldg., Nrupathunga Rd., Bangalore 560002.

Tungabhadra Steel Products Ltd., P. O. Tungabhadra Dam 583225, Bellary Dist. (See under Govt. of India Undertakings).

Visvesvaraya Industrial Trade Centre, Kasturba Rd., Bangalore 560001.
Functions: To exhibit the various industrial products manufactured in the State, establish contacts between the producer and the purchaser, maintain Information-cum-Documentation Centre for catering to the needs of the exporters/visitors for development of marketing and maintain a close liaison with the research organisations & institutions within the country and abroad. Also offers telex facilities to small scale industries for promotion of exports.

Visvesvaraya Iron & Steel Ltd., Bhadravati 577301. Shimoga Dist.
It is an integrated steel plant producing alloy and special steel, mild steel, tor steel, ferro-silicon, high speed steels, die blocks, stainless steel, steel castings, grey iron castings, refractory bricks, cement etc.
Chairman: R. A. Naik; *Vice-Chairman & Mg. Director:* K. V. Irniraya.

KERALA

Chalakudy Refractories Ltd., Railway Station Rd., Chalakudy 680307.
Estd.: 1969. The production capacity has been increased to 16,800 M. Tonnes per annum. Product range includes zircon nozzles to bricks, sillimanite stds. & specials, graphite stopper heads, insulating refractories in fire clay silica and sillimanite base for hot face and cold face, fire clay items, mortars, high heat duty ramming mass etc., etc.

Fibre Foam Ltd., Valaparam, Cannanore 670001.

Foam Mattings (India) Ltd., Post Box 283, Alleppey 688001.

Forest Industries Travancore Ltd., Post Box No. 18, Alwaye 683101.

Handicrafts Devpt. Corpn. of Kerala Ltd., Putenchanthai, Trivandrum 695017.

Keltron Counters Ltd., Chavadimukku, Sreekariyam, Trivandrum 695017.

Kerala Agro-Industries Corpn. Ltd., *Regd. Office:* Kissan Jyothi, Fort, Trivandrum 695023.

Kerala Agro-Machinery Corpn. Ltd., *Regd. Office:* 38/697, Kateson Bldg., M. G. Rd., Ernakulam 682011.
Factory: P. O. Athani, Angamali South, Ernakulam Dist.
Function: Manufacturers of Kubota power tillers with a licensed capacity of 12,000 numbers per year.

Kerala Automobiles Ltd., P. B. No. 4, Poojapura, Trivandrum 695012.

Kerala Ceramics Ltd., P. O. Kundara 691501.
The Company consists of two divisions: 1. Porcelain Divn. producing porcelain tableware and low tension electrical insulators; 2. Kaolin Divn. consisting of china clay mines and modern plant set up with Japanese collaboration producing refined china clay of various grades including spray dried paper coating grade clay supplied to indigenous users and exported to Japan.

Kerala Co-op. Milk Marketing Fedn. Ltd., Arkanilayam, Vazhuthacaud, Trivandrum 695014.
(Sponsored by the Govt. of Kerala, National Dairy Development Board & Indian Dairy Corpn.).

Kerala Electrical & Allied Engg. Co., Ltd., P. O. Mamala, Cochin 682305.
Products manufactured: Transformers, switchgears, transmission line towers, bakelite mouldings, G. I. castings, fuse units, galvanised transmission towers, railway train lighting equipment, alternators, H.R.C. fuses, starters, contactors, panel boards, heavy steel structurals, etc.

Kerala Financial Corpn., K.F.C. Bldgs. Vellayambalam, Trivandrum 695001

Kerala Fisheries Corpn. Ltd., XXXI/848B, Shanmugham Rd., Ernakulam, Cochin 682031.
Functions: Export of Frozen Shrimps, Frozen Lobster tails, Frozen Frog legs, Frozen Fishes, Canned Shrimps, Canned Mussels, Canned

Fish, Canned Crab meat, Fishmeal, Fishoil, Fish pickles, Nylon & Polythene Twine and Fishnets. At present it has 4 Ice & Freezing Plants, 2 Fishmeal Plants, 1 Nylon Net Factory, 1 Canning Factory, 1 Fleet Section with four Mexican Trawlers, 1 Purse-Seine Project with eight Purse-Seiners.

Kerala Forest Devpt. Corpn. Ltd., Chemparathimoottil Bldg., Kottayam 686006.

Kerala Garments Ltd., P.M. 32/249, Thillery Rd., Cannanore 670001.

Kerala Handloom Finance & Trading Corpn. Ltd., P.M. 32/249, Thilleri Rd., Cannanore 670001.

Kerala Industrial & Technical Consultancy Organisation Ltd. (KITCO), Shema Bldg., M. Gandhi Rd., P. Box No. 1820, Cochin 682016.
KITCO a subsidiary of the Indl. Devpt. Bank of India, co-sponsored by national level and State level financial institutions and State Government for promotion of industrial development.

Kerala Inland Navigation Corpn. Ltd., EEJE Chambers, Ravipuram Rd., Cochin 682016.
Functions: To establish, maintain and operate transportation services for the transport of goods and passengers in the backwaters of Kerala.

Kerala Land Devpt. Corpn. Ltd., 44, Shanti Nagar, Trivandrum 695001.
Functions: To promote, undertake, finance and execute land development schemes for agriculture and allied activities. The Kuttanad Devpt. Project has been taken up to augment output of rice and coconut in the region. Similarly a project for development of 15,500 hectares Kole lands in Trichur Dist. and 3,668 hectares Kole lands in Ponnani (Malappuram Dist.) have also been taken up to intensify paddy cultivation.
Chairman: M. Dandapani; *Mg. Director:* N. C. Vikraman Nair

Kerala Livestock Devpt. & Milk Marketing Board Ltd., 9/1148, "Mani Bhavan", Sasthamangalam, Trivandrum 695010.

Kerala Minerals & Metals Ltd., P. Box No. 30, Quilon 691001.
Mining & beneficiating of coastal minerals and manufacture of titanium dioxide.

Kerala Premo Pipe Factory Ltd., P.O. Puthenthura, Neendakara 691582. Quilon Dist. *Registered Office:* Near High School Junction, Quilon 691009.
In this factory prestressed concrete pipes and R.C.C. pipes are manufactured by a special Norwegian 'Premo' Method. R.C.C. NP 2 pipes are also manufactured.

Kerala Shipping Corpn. Ltd., 2nd Main Rd., Post Box No. 593, Willingdon Island, Cochin 682003.
Engaged in operating ships.

Kerala Soaps & Oils Ltd., Gandhi Rd., Calicut 673011. The Company consists of 3 units viz. Soap Division, Oil Division, Hydrogenation Division, vanaspati & refined oil. The Company manufactures soaps, Vitamin A & D, Shark liver oil products and glycerine.
Mg. Director K.S. Nair.

Kerala State Bamboo Corpn. Ltd., Angamally 683572.

Kerala State Cashew Devpt. Corpn. Ltd., P. B. No. 13, Quilon 691001.

Kerala State Civil Supplies Corpn. Ltd., P.B. No. 1789, M.G. Rd., Ernakulam, Cochin 582016.

Kerala State Coconut Devpt. Corpn. Ltd., Janaki Nivas, Vazhuthacaud, Trivandrum 695014.

Kerala State Coir Corpn. Ltd., P.B. No. 191, Alleppey 688001.

Kerala State Construction Corpn. Ltd., Thycaud, Trivandrum 695014.
It is engaged in construction of bldgs., bridges & roads in the State. it has also taken up several works in Libya in association with National Bldg. Construction Corpn. Ltd. & Projects & Equipment Corpn. Ltd., New Delhi.

Kerala State Devpt. Corpn. for Schedule Castes & Scheduled Tribes Ltd., XXV/300, M. Gandhi Rd., Trichur 680001.

Kerala State Drugs & Pharmaceuticals Ltd., Kalavoor, Alleppey 688522.

Kerala State Electronics Devpt. Corpn. Ltd., Keltron House, Vellayambalam, Trivandrum 695001.
Functions: To promote establishment of electronic industry in the State. The Corporation has promoted several companies such as Keltron Component Complex Ltd., Keltron Crystals Ltd., Keltron Resistors Ltd., Dielectro Magnetic Ltd., Keltron Power Devices Ltd., Keltron Rectifiers Ltd., etc., etc., etc.. for the manufacture of calculators, electronic cash registers, micro processor based dedicated systems, impulse clock systems, power transistors, ceramic aluminium electrolytic capacitors, piezo electric crystals, carbon film resistors, ferrites, thermistors, electromagnetic counters, speedometers, cine projectors, transistor radios, television receivers, closed circuit television systems, stereo systems, radio-clocks, defence products. AC and DC motor drives, uninterrupted power supply systems and a range of other custom built products. The Corpn. has also launched a programme of assembling radios in the co-optve. sector mainly for educated unemployed women.

Kerala State Film Devpt. Corpn. Ltd., Cotton Hill, Trivandrum 695014.

Kerala State Financial Enterprises Ltd., 'Bhadratha', P.B. No. 172, Museum Rd., Trichur 680020.
The only Public Sector company in India that conducts chit funds to cater to the public and also conducts hire/purchase financing under which all kinds of durable consumer articles, except gold and silver, are made available to the public at reasonable rates of finance charge. It has 57 branches in important cities/towns and business centres of the State.

Kerala State Industrial Devpt. Corpn. Ltd., Keston Rd., Kawdiar, Trivandrum 695003.
Chairman & Mg. Director: S. Padmakumar.

Kerala State Ind. Enterprises Ltd., St. Jospeh's Press Bldgs., Cotton Hill, Trivandrum 695014.
Subsidiary Companies: Trivandrum Rubber Works Ltd., Trivandrum, Kerala Ceramics Ltd., Kundara. Travancore Plywood Industries Ltd., Punalur, Kerala Electrical & Allied Engg. Co. Ltd., Mamala, Kundara & Olavakkot, Kerala Soaps & Oils Ltd., Alleppy, Kerala State Detergents & Chemicals Ltd., Kuttipuram, Super Clays and Minerals Mining Company Private Ltd., Cannanore (Relief Undertaking).

Kerala State Industrial Products Trading Corpn. Ltd., 'Sreebhas', 4/841, Kowdiar, Trivandrum 695003.
Chairman: P. M Abraham; *Mg. Director:* P. M. George.

Kerala State Small Industries Devpt. & Employment Corpn. Ltd., Kerala State Housing Board Bldgs., Santhinagar, Trivandrum 695001.

Kerala State Textile Corpn., Ltd., "Diamond Hill", Vellayambalam, Trivandrum 695010.
Functions: Assisting or managing textile manufacturing & processing units in Kerala State.
Chairman: G. V. S. Desikan.

Kerala Tourism Devpt. Corpn. Ltd., Elenjikal Bungalow, T.C. No. 26/342, P.O. Box. 46, Trivandrum 695001.

Kerala Urban Devpt. Finance Corpn. Ltd., Tej Bhawan, New Rd., Calicut 673005.

Kerala Wood Inds. Ltd., 'Karunalayam', Wynad Rd., Calicut 673001.

Malabar Cements Ltd., Shobha TSM Complex, Rly. Stn. Rd., Palghat 678001.

Metropolitan Instruments Ltd., Chavadimukku Junction, N. H. 47, Sreekariam, Trivandrum 695001.

National Traffic Planning & Automation Centre (a divn. of KELTRON), Sreekanteswaram Rd., Trivandrum 695023.
Functions: Undertakes traffic and transportation planning at the State, national and international levels. The Centre is supplemented by the manufacturing unit of Keltron by way of producing traffic signalling equipment, closed circuit television system etc.

Overseas Devpt. & Employment Promotion Consultants Ltd., Y.W.C.A. Bldgs., Trivandrum 695001.

Pallathra Bricks & Tiles Ltd., P. O. Kochuramapuram, Shertallay 688524.

The object of the Company is to produce and distribute sand lime bricks, a new architectural brick of high strength and finish. The designed capacity of the factory is 44,000 bricks per working day of 16 hours.

Plantation Corpn. of Kerala Ltd., P. B. 12, Kottayam 686004.
Area under *rubber:* 7,460 hectares: Area under yielding: 5,755 hectares. Area under *oil palm:* 1,750 hectares; Area under yielding: 420 hectares: Area under *cashew:* 5,290 hectares; Area under yielding: 2,600 hectares. The Corporation manufactures all grades of sheets, crepe and crumb rubber, 60 per cent centrifuged latex, and red palm oil.

Rehabilitation Plantations Ltd., Tholicode, Punalur 691333. Quilon Dist.

Scooters (Kerala) Ltd., P.B. No. 290, Alleppey 688001.

State Farming Corpn. of Kerala Ltd., Karimbu Bhavan, P.O. Nellipally, Punalur 691305.

Steel Industrials Kerala Ltd., T.C. 26/532, Oottukuzhy Rd., Trivandrum 695001.
Functions: To set up and operate Iron & Steel Castings Unit, Ship Breaking Unit, Steel Forgings Springs, Steel Structurals and Roller Bearings for use in Railways, power plants and heavy earth moving machinery.
Mg. Director: V. K. S. Menon.

Traco Cable Co. Ltd., 997-D, Panampilly Nagar, Housing Board Office Complex Bldg., Cochin 682016. *Factory:* Irimpanam 682309, Ernakulam Dist.
The Company manufactures all kinds of PVC cables and wires upto and including 1100 volts grade, AAC and ACSR conductors, paper insulated lead sheathed polyethylene jacketted underground telephone cables of size upto 100 pairs.
Chairman: P.M. Abraham; *Mg. Director (In charge)* A.S. Rajagopalan.

Transformer & Electricals Kerala Ltd., Angamall 683572: Ernakulam Dist.

Travancore-Cochin Chemicals Ltd., P.O. Udyogamandal 683501. Only public sector Caustic Soda Unit in the country—Established in 1952. The daily licensed production capacity of the factory is 200 tonnes of rayon grade caustic soda, 10 tonnes of sodium hydrosulphite, 7 tonnes of ironfree sodium sulphide, 360 tonnes of hydrochloric acid and 60 tonnes of liquid chlorine.
Chairman & Mg. Director: T. N. Menon.

Travancore Plywood Industries Ltd., Punalur 691305.
The installed capacity of the factory is 2.28 million sq. metres of plywood panels per annum in two shifts. Annual turnover is Rs. 32 million.

Travancore Titanium Products Ltd., Kochuveli, Trivandrum 695021. The factory is producing titanium dioxide pigments, both Anatase and Treated Rutile. It has now a production capacity of 24,500 tonnes per annum.
Mg. Director: C. T. Sukumaran.

Trivandrum Rubber Works Ltd., Trivandrum 695007.

Trivandrum Spinning Mills Ltd., Balaramapuram 695501. Equipped with modern machinery for 25,200 spindles and 800 spindles of doubling frames, this mill manufactures quality yarn of counts varying from 60s to 100s in hanks and cones.

United Electrical Industries Ltd., Pallimukku, Quilon 691001.
The company manufactures electricity meters, motor starters, switch-gears, carbon film resistors and plastic film capacitors.
Chairman: K. Sivasankaran Nair; *General Manager:* T. G. Paul.

MADHYA PRADESH

Madhya Pradesh Audyogik Vikas Nigam Ltd., Panchanan, Malviya Nagar, Bhopal 462003.
Functions: It aims to promote the establishment of medium & large scale industries in the State by providing them with financial, technical and other assistance.

Madhya Pradesh Financial Corpn., Finance House, Bombay-Agra Rd. Indore 452001.

Madhya Pradesh Laghu Udyog Nigam Ltd., 23, New Shopping Centre, New Market, T. T. Nagar, Bhopal 462003.
The Nigam has undertaken the following activities:-
Marketing of SSI products to Govt. Deptts. & Corpns., distribution of raw materials; sale of handlooms & handicrafts through 10 MRIGNAYANI emporia all over the State and in Delhi: export promotion of SSI products and participation in trade fairs; construction & maintenance of industrial sheds.

Madhya Pradesh Lift Irrigation Corpn., Ltd., 54, New Mkt., T. T. Nagar, Bhopal 462003.

Madhya Pradesh State Agro-Industries Devpt. Corpn. Ltd., New Market, Tatyatope Nagar, Bhopal 462001.
Functions: It helps promote and establish agro-based industries; distributes and hires farm machinery and equipments and sells agricultural inputs; and trains and finances educated unemployed to set up agro-service centres and industries. It has developed a mechanical farm at Hoshangabad, a pesticide factory at Bina, oil and cattle-feeds factory at Morena, a fertiliser granulation plant at Itarsi and a cold storage at Chhindwara.

Madhya Pradesh State Dairy Devpt. Corpn. Ltd., Guru Teg Bahadur Complex, Roshanpura, Bhopal 462003.

Madhya Pradesh State Forest Devpt. Corpn. Ltd., 'Panchanan', Malviya Nagar, Bhopal 462003.

Madhya Pradesh State Industries Corpn. Ltd., 'Panchanan', Malviya Nagar, Bhopal 462003.
Functions: To run the State Sector industries and to participate in Joint Sector.

Madhya Pradesh State Mining Corpn. Ltd., E-1/187, Area Colony, Bhopal 462014.
Functions: The Corporation is engaged in mining and marketing of rockphosphate, limestone, dolomite, tin, fluorite, bauxite, corrundum, diaspore, pyrophyllite, fireclay, soapstone and marble.

Madhya Pradesh State Textile Corpn. Ltd., Flrs. 2A, 6A & C, 'Gangotri Complex', T.T. Nagar, Bhopal 462003.
Functions: The Corpn. controls a composite textile mill, spg. mills and processing plant. The Corpn. looks after the development of sericulture, both mulberry and tasar, in the State. It also looks after the development of handlooms, the main products being furnishings, bed spreads and Janata saris. It also markets the famous saris of Chanderi and Maheshwar in addition to tasar saris.

Madhya Pradesh State Tourism Development Corpn., Gangotri, T.T. Nagar, Bhopal 462003.

Madhya Pradesh Textbook Corpn., Bhopal 462011.

Madhya Pradesh Vidyut Yantra Ltd., 781, Wright Town, P.B. No. 300, Jabalpur 482002.
Functions: Manufactures electricity distribution transformers.
Chairman: S. C. Vaish; *Mg. Director:* D. K. Mallesh Raj.

MAHARASHTRA

City & Industrial Devpt. Corpn. of Maharashtra Ltd. (CIDCO), Nirmal, Nariman Point, Bombay 400021.
Functions: It was established in March 1970 with the object of developing (1) A new city across the harbour of Bombay. (2) New Aurangabad, to facilitate urban development of Marathwada; (3) A residential complex for industrial workers at Tarapur; and (4) New townships in Nasik and Nanded notified areas.
Chairman: Ram Mahadik; *Vice-Chairman & Mg. Director:* L. C. Gupta.

Dairy Corpn. of Maharashtra Ltd., Mistry Bhavan, 6th Flr., D. Vachha Rd., Bombay 400020.

Dairy Devpt. Corpn. of Marathwada Ltd., Vikas Bhavan, Dr. R. Prasad Rd., Aurangabad 431001.

Development Corpn. of Konkan Ltd., Warden House, Sir P. Mehta Rd., Bombay 400001.
Functions: To promote industrial growth in the districts of Thane Raigad, Ratnagiri and Sindhudurga.
Mg. Director: R. C. Joshi, I.A.S.

Development Corpn. of Vidarbha Ltd., Mahajan Bldg., Main Rd., Sitabuldi, Nagpur 440012.
Functions: To achieve orderly industrialisation of the 9 districts of Vidarbha. To this end the Corporation is setting up units on its own or as joint sector ventures, and is also preparing viable schemes to help would-be entrepreneurs. Accordingly the Corpn. has under implementation project on Tussar Silk, two units of Khandsari sugar, Palma Rosa Oil and under one shed export quality woollen pile carpets. It has two subsidiary companies producing paints at Kamptee and finished leather from goat skins at Warora in Chandrapur Dist. In addition, the Corpn., as an agency of the State Govt., implements the Govt. Package Scheme of Incentives & the Employment Promotion Programme under which mini industrial estates are being constructed at Taluka places.
Mg. Director: P. P. Godshalwar.

Forest Development Corpn. of Maharashtra Ltd., 6A. Nawab Layout, Tilak Nagar, Nagpur 440010.

Gondwana Paints & Minerals Ltd., Near Rly. Goods Shed, Kamptee 441001. Nagpur Dist.

Haffkine Bio-Pharmaceutical Corpn. Ltd., Parel, Bombay 400012.
Functions: Manufactures bacterial & viral vaccines, antitoxins, antivenine, blood products, diagnostic agents and other biological & pharmaceutical formulations, including infusions. For the benefit of the general public, the life saving biologicals are sold day and night at the telephone room of the Corpn.
Chariman: Dr. B. K. Goyal; *Mg. Director:* S. V. Joshi.

Irrigation Devpt. Corpn. of Maharashtra Ltd., New Adm. Bldg., Agricultural College Compound, Shivajinagar, Pune 411005.

Leather Ind. Corpn. of Marathwada Ltd., Vikas Bhavan, Dr. R. Prasad Rd., Aurangabad 431001.

Leather Ind. Devpt. Corpn. of Maharashtra Ltd., Bombay Life Bldg., 45, Veer Nariman Rd., Bombay 400023.
Chairman: V. A. Chansre; *Mg. Director:* Vijay Singh.

MAFCO Ltd., Mistry Bhavan, D. Vachha Rd., Bombay 400020.
Functions: To develop the storage, processing and marketing and export of perishable agricultural produce (viz. vegetables, meat, dairy products) in order to ensure that the agricultural producer gets a fair price and the consumer obtains a quality product at a reasonable rate.
Chairman: B. V. Nimbar; *Mg. Director:* P.M.A. Hakeem.

MAFCO Factory: National Park, Borivli (East), Bombay 400066.
Produces meat, bacon, ham, sausages & canned meat products and has a capacity to slaughter 100 pigs a day.

MAFCO Factory: Gokhale Nagar, Pune.
Produces fruits, vegetables, fish & procures eggs from poultry farms in the vicinity. Production capacity 1,800 metric tonnes.
MAFCO Factory: Turbhe.
Produces fruits, vegetables, fish & procures eggs from poultry farms tonnes of frozen material per year, cold storage of 200 tonnes & deep freeze of 500 tonnes.

MAFCO Factory: Koregaon.
Produces buffalo meat, mutton, fruits & vegetables with a production capacity of 1,200 tonnes per year and procures country eggs from small farmers in the vicinity. It also has a cold storage with a capacity of 500 tonnes and a deep freeze with a capacity of 150 tonnes. It has also a slaughter house.

MAFCO Factory: Nanded.

Produces buffalo meat, mutton, frog legs, sweet water fish, fruits & vegetables with a production capacity of 1,800 tonnes per year. It also has a cold storage with a capacity of 500 tonnes & a deep freeze with a capacity of 250 tonnes.

MAFCO Cold Store: Gultekdi, Pune.
This cold store has a capacity of 1,000 tonnes of cold storage and 800 tonnes of deep freeze. It stores potatoes, cotton seed, dairy products, forzen fruits and vegetables.

Maharashtra Agro-Industries Devpt. Corpn. Ltd., C/o. Sugras Factory, Opp. Central Stores, Aarey Colony, Goregaon (East), Bombay 400065.

Maharashtra Antibiotics & Pharmaceuticals Ltd. (A Joint Venture of HAL & SICOM), 145, Ramdaspeth, Nagpur 440010.

Maharashtra Electronics Corpn. Ltd. (MELTRON), Plot No. 214, Backbay Reclamation, Raheja Centre, 13th Flr., Nariman Pt., Bombay 400021.
Chairman: Harish Mahindra; *Mg. Director:* N. Jayaraman.

Maharashtra Film, Stage & Cultural Devpt. Corp. Ltd., Film City, Goregaon East, Bombay 400065.
Chairman: Sushilkumar Shinde; *Vice-Chmn.:* Arun Diwekar.

Maharashtra Fisheries Development Corpn. Ltd., Taraporewala Aquarium, N. Subhas Rd., Bombay 400002.

Maharashtra Industrial Devpt. Corpn., Marol Indl. Area, Mahakali Caves Rd., Andheri (East), Bombay 400093.
Chairman: Ramrao Adik; *Ex. Officer:* R. M. Premkumar.

Mahrashtra Industrial & Technical Consultancy Orgn. Ltd., 826/27, Budhwar Peth, Sonya Maruthi Chowk, Laxmi Rd., Pune 411002.
Functions: A joint venture of ICICI, IDBI, IFCI & SICOM, MIDC, MSSIDC and Regional Development Corpns. of Konkan, Marathwada, Vidarbha & Western Maharashtra & eight public commercial banks. Trg. & devpt. programme for entrepreneurs; technological transfer of knowhow & skills from the advanced indl. centres to the newly developing centres; an escort to infant or sick industries so that they develop to their full capacity; a catalyst to enhance the interaction between all the agencies participating in the existing activity of improvements through industrialisation in Maharashtra & Goa.

Maharashtra Land Devpt. Corpn. Ltd., Administrative Bldg. of the Agriculture Dept., Shivajinagar, Pune 400005.

Maharashtra Small-Scale Industries Devpt. Corpn. Ltd., Krupanidhi, 9, W. Hirachand Marg, Bombay 400038.
Functions: Procurement and distribution of scarce and controlled raw materials like ferrous and non-ferrous items, pig iron, cement, etc. etc., contract mktg. assistance; devpt. of handicrafts and mktg. of handicraft articles; import assistance scheme; commercial warehousing facility; permanent Trimourti Indl. Exhibition; publication of Laghu Udyog monthly and weekly news bulletin.
Chairman: Mustafa Fakih; *Mg. Director:* Ajay Dua.

Maharashtra State Co-op. Marketing Fedn. Ltd., Kanmoor House, Narsi Natha St., Bombay 400009.

Mahrashtra State Co-op. Tribal Devpt. Corpn. Ltd., 2059, Vijay Nagar Colony, Sadashiv Peth, Pune 411030.

Maharashtra State Farming Corpn. Ltd., 270, Bhamburda, S. Bapat Marg, Pune 411016.
Functions: Cultivation and management of the surplus lands of the joint stock sugar companies in Maharashtra vesting in the Government under the provisions of the Maharashtra Agricultural Lands (Ceiling on Holdings) Act, 1961, and granted to the Corporation.
Chairman: Shantaram Gholap; *Mg. Director:* P.D. Karandikar.

Maharashtra State Financial Corpn., New Excelsior Bldg., A.K. Nayak Marg, Bombay 400001.
Functions: The Corporation provides financial assistance to medium and small-scale industrial concerns in Maharashtra State and in the Union Territory of Goa, Daman and Diu. Assistance is also available to qualified technicians and educated unemployed persons.
Chairman: S. R. Damani; *Mg. Director:* S. P. Upasani.
Maharashtra State Handlooms Corpn., 50, Central Avenue, Ahmad Manzil, Nagpur 440018
A subsidiary of the Maharashtra State Textile Corpn. Ltd., it manages the affairs of the handloom industry in the State.
Maharashtra State Mining Corpn. Ltd., 5, Abhyankar Nagar, Nagpur 440010.

Maharashtra State Oilseeds Commercial & Ind. Corpn. Ltd., 201, Jolly Bhavan No. 2, 7, New Marine Lines, Bombay 400020.

Maharashtra State Powerlooms Corpn. Ltd., Vashani Chambers, 47, New Marine Lines, Bombay 400020.
Functions: To rehabilitate the powerloom industry and to assist the weavers, who are economically weak; the Corporation undertakes various operations in production, marketing and sale of cloth.

Maharashtra State Seeds Corpn. Ltd., Plot No. 8, Shastri Nagar, Akola 444001

Maharashtra State Textile Corpn. Ltd., 'Lotus House', 33-A, New Marine Lines, Bombay 400020

Functions: Originally established in 1966 to take over sick textile mills in the State. Now controls eight cotton textile mills. A new export oriented composite textile mill Devagri Textile Mills Ltd. was commissioned in 1979. A similar composite mill at Kalameshvar, Kalameshvar Textile Mills Ltd., was also commissioned recently

Maharashtra State Warehousing Corpn., Plot 'B', Survey No 583, Marketyard, Gultekadi, Pune 411037.
Functions: The Corporation has established warehouses at 103 centres all over Maharashtra State. Against warehouse receipts issued by the Corporation, the depositors can secure advances from scheduled banks. The Corporation also provides agricultural needs.

Maharashtra Tourism Devpt. Corpn. Ltd., Express Towers, 9th Flr., Nariman Pt., Bombay 400021.

Marathwada Devpt. Corpn. Ltd., Vikas Bhavan, Dr. R. Prasad Rd., Aurangabad 431001.
Functions: The Corpn. has set up its own seven subsidiaries managing wide range of diverse projects. These are Textile Corpn. of Marathwada Ltd., Leather Industries Corpn. of Marathwada Ltd., Godavari Garments Ltd., Kinwat Roofing Tiles Ltd., Parbhani Krishi Gosamvardhan Ltd., Dairy Development Corpn. of Marathwada Ltd. & Marathwada Ceramic Complex Ltd. It has also set up 8 Mini Indl. Estates at rural growth centres, throughout the region. It extends promotional and escorting activities of all development agencies.

Mopec Ltd., J. K. Bldg., 2nd Flr., N. Morarjee Mrg., B. Estate, Bombay 400038.

Overseas Employment & Export Promotion Corpn. of Maharashtra Ltd., J. K. Bldg., N. M. Marg, B. Estate, Bombay 400038.
Chairman: Syed Farook Pasha.

State Industrial & Investment Corpn. of Maharashtra Ltd. (SICOM), 'Nirmal', Nariman Point, Bombay 400021.
Chairman: H. G. Vartak; *Mg. Director:* B. N. Bhagwat.

Textile Corpn. of Marathwada Ltd., Anvikar Bldg., Adalat Rd., Aurangabad 431001.
Functions: A subsidiary company of the Marathwada Development Corpn. Ltd., it has set up its pre-weaving unit and process house in Nanded. The present processing capacity is 125,000 metres per day.
Mg. Director: L. N. Gangakhedkar.

Vidarbha Quality Seeds Ltd., Mahajan Bldg., Main Rd., Sitabuldi, Nagpur 440012.

Western Maharashtra Devpt. Corpn. Ltd., Redross House, 11, Mahatma Gandhi Rd., Pune 411001.
Mg. Director: V. M. Lal.

MANIPUR, MEGHALAYA & NAGALAND

Forest Devpt. Corpn. of Meghalaya Ltd., Lower Lachumiere, Shillong 793001.

Manipur Handloom & Handicrafts Development Corpn. Ltd., Paona Bazar, Imphal 795001.

Manipur Small Industries Corpn. Ltd., Paona Bazar, Imphal 795001

Mawmluh-Cherra Cements Ltd., Taxation Bldg., Shillong 793001. The Company has its factory at Cherrapunjee for manufacture of Portland Cement. Production capacity 590 T.P.D. Capacity after implementing expansion scheme will be 930 T.P.D.
Mg. Director: H. Suchiang.

Meghalaya Essential Oil & Chemicals Ltd., Nongrim Hills, Shillong 793003.

Meghalaya Industrial Devpt. Corpn. Ltd., P. Box No. 9, Shillong 793001.

Nagaland Industrial Devpt. Corpn. Ltd., Ind. Estate, P.B. No. 5, Dimapur 797112.

Nagaland Sugar Mills Ltd., Dimapur 797112.

ORISSA

Cuttack Iron & Steel Products Ltd., Ind. Estate, Cuttack 753003
The company manufactures fabricated steel goods. It undertakes all types of fabrication work. Its products can be divided into three categories: (1) Heavy Goods; (2) Semi-Heavy Goods; (3) Light Goods.

East Coast Salt & Chemical Ind. Ltd., Sardar Patel Hall Premises, Bhubaneswar 751009.

Industrial Devpt. Corpn. of Orissa Ltd., P.B. 78, Bhubaneswar 751001.
Functions: The Corporation has fourteen running industries: 1. Kalinga Iron Works, Barbil, Matkambeda 758036, Keonjhar Dist.: Manufactures foundry grade pig iron; 2. Hira Cement Works, Bardol 768038, Sambalpur Dist.: Ordinary Portland cement & Portland Pozzolana cement; 3. Ferro Chrome Plant, Jajpur Rd., Cuttack Dist.: High carbon & low carbon Ferro Chrome, Silico Chrome; 4. Hira Cable Works, Hirakud 768016, Sambalpur Dist.: A.A.C. & ACSR conductors, copper & aluminium winding wires & strips, aluminium rods; 5. Re-Rolling Mill, Hirakud 768016: M. S. Rods, Torsteel, Angles; 6. Hirakud Industrial Works, Hirakud 768016: Transmission Line Towers, Sub-station structures, various machinery & repair jobs; 7. Tile Factory, Choudwar, Cuttack 754024: Roofing tiles, Ridge tiles, Flooring tiles, Dust pressed bricks; 8. Project Construction Orgn., Bhubaneswar 751001: Erection & stringing of transmission line towers; 9. Spun Pipe Plant, Barbil, Matkambeda 758036, Keonjhar Dist.: Cast iron, Ductile iron spun pipes; 10. Baripada Spg. Mill, Baripada: Cotton yarn upto 40 counts; 11. Sonepur Spg. Mill, Sonepur, Balangir Dist.: Cotton yarn upto 40 counts; 12. Boiler Piping & Accessories Works, Bhubaneswar 751001: Fabrication & bending of carbon & alloy steel seamless pipe Bends, Tees, Elbows, Reducers, etc.; 13. East Coast Breweries & Distilleries Ltd., Paradeep 754142: Beer; 14. E. Coast Salt & Chemical Inds. Ltd., Sumandi, Ganjam 761026: Edible & industrial grade salt. Several other projects have also been taken up with some other industries under joint venture.

Industrial Promotion & Investment Corpn. of Orissa Ltd., IPICOL House, Janpath, Sahidnagar, Bhubaneswar 751007.

Leather Corpn. of Orissa Ltd., Shree Vihar, Tulsipur, Cuttack 753008.

Mayurbhanj Textiles Ltd., P.O. Baripada 757001.

Orissa Agrico Ltd., B-9, Ind. Estate, Cuttack 753010.

Orissa Agro Industries Corpn. Ltd., Killa Maidan, Cuttack 753001.

Orissa Composite Boards Ltd., K/6, B. J. P. Nagar, Bhubaneswar 751014.

Orissa Construction Corpn. Ltd., Gopabandhu Nagar, Unit No. 8, P.O. New Capital, P.B. 82, Bhubaneswar 751003.

Orissa Co-operative Handicrafts Corpn. Ltd., A-128, Saheed Nagar, Bhubaneswar 751007.

Orissa Forest Corpn. Ltd., Bhubaneswar 751001.
Functions: The Corporation undertakes proper exploitation of forest resources of the State and markets raw and finished forest products such as timber, props, colliery materials, sleepers, charcoal, Kendu leaves, Sal seeds, etc.

Orissa Foundry Co. Ltd., New Barracks St., Berhampur Town 760001, Ganjam Dist.

Orissa Indl. Infrastructure Development Corpn., IDCO Towers, Janpath, Bhubaneswar 751007.
Functions: To secure and assist in the rapid and orderly establishment of organisations of industry, trade and commerce in industrial estates and industrial areas to be set up in all important places of the State.

Orissa Industrial & Technical Consultancy Organisation Ltd., 363 Sahidnagar, Janpath, Bhubaneswar 751007.

Orissa Instruments Ltd., B-8 & B-9, Ind. Estate, Cuttack 753010.

Orissa Lift Irrigation Corpn. Ltd., Bhubaneswar 751001.

Orissa Mining Corpn. Ltd., Bhubaneswar 751001.

Orissa Road Transport Co., Ltd., Station Rd., Berhampur 760001.

Orissa Small Ind. Corpn. Ltd., Barabati Stadium, Cuttack 753005

Orissa State Cashew Development Corpn. Ltd., Bhubaneswar 751001.

Orissa State Commercial Transport Corpn. Ltd., Old Secretariat Bldgs., Killa Maidan, Cuttack 753001.

Orissa State Financial Corpn., OMP Square, Cuttack 753003.

Orissa State Handloom Devpt. Corpn. Ltd., 363, Sahidnagar, Bhubaneswar 751007.

Orissa State Seeds Corpn., Santarapur, Bhubaneswar 751002

Orissa Tiles Ltd., P.O. Barang 754005

Orissa Tourism Development Corpn. Ltd., 4, Satyanagar, Bhubaneswar 751007.

Rourkela Fabrications Pvt. Ltd., Ind. Area, Rourkela 769004. The Factory manufactures sophisticated mechanical spares for steel plant including import substitution items and general fabrications, light, medium and heavy. Turn-over for 1982-83: Rs. 2.2 million.

Spark Battery Mfg. Works Ltd., Ind. Estate, Cuttack 753003.

Tribal Devpt. Co-op. Corpn. of Orissa Ltd., Post Box 148, Bhubaneswar 751001.
Functions: To save the tribals from exploitation by procuring their minor forest and surplus agricultural produce to reasonable prices, to supply their daily needs through fair price shops and to give them interest free loans.

Utkal Foundry & Engg. Co. Ltd., P.O. Remed, Sambalpur 768101.

PONDICHERRY

Pondicherry Distilleries Ltd. Goubert Avenue, Pondicherry 605001. It produces 6,000 liters of industrial alcohol per day.
Mg. Director: C. Saravanaperumal.

Pondicherry Industrial Promotion, Devpt. & Investment Corpn. Ltd., 38, Romain Rolland St., Pondicherry 605001.

PUNJAB

Goindwal Industrial & Investment Corpn. of Punjab Ltd., SCO 106-108, 4th Flr., Sector 37-D, Chandigarh 160017.

Land Devpt. & Seed Corpn. Ltd., 62, Sector 9-A, Chandigarh 160017.

Malwa Cotton Spg. Mills Ltd., SCO 54, 55 & 56, Sector 17-A, Chandigarh 160017.

Punjab Agro Fruit &, Vegetable Products Ltd., SCO No. 315-316, Sector 35-B, Chandigarh.

Punjab Agro Industries Corpn. Ltd., SCO 307-308, Sector 35B, Chandigarh 160036.

Punjab Breweries Ltd., Focal Point Area, P.O. Jamalpur Awana, Ludhiana 141001.

Punjab Dairy Devpt. Corpn. Ltd., 14-A, Madhya Marg, Sector 7-C, Chandigarh 160017.

Punjab Display Devices. Ltd., A-27, Phase VII, S. A. A. Nagar, Chandigarh 160055.
Functions: Manufactures display devices and systems as well as CRT and TV picture tubes.

Punjab Export Corpn. Ltd., Kothi No. 117, Sector 18-A, P.B. 20, Chandigarh 160017.

Punjan Film & News Corpn., 52, Sector 4-A, Chandigarh 160017.

Punjab Financial Corpn., 72/73, Sector 17-B, Bank Square, Chandigarh 160017.
Chairman: T. K. A. Nair; *Mg. Director:* Mrs. J. Khanna.

Punjab Footwear Ltd., Bhargava Nagar, Jullundur 144001.

Punjab Khand Udyog Ltd., S.C.O. 125-126-127, Sector 17-B, Chandigarh 160017.

Punjab Maize Products Ltd., *Factory & Office:* Uppli Rd., Post Box No. 32, Sangrur 148001. *Regd. Office:* S.C.O. 54-56, Sector 17-A Chandigarh 160017.
Manufactures Maize Starch, Liquide Glucose, Dextrose Monohydrate Modified Starches, Corn-Steep Liquor, Maize Oil, Maize Oil Cakes, Gluten, Hydrol, etc.

Punjab National Fertilizers & Chemicals Ltd., S.C.O. 119-20, Sector 17B, Chandigarh 160017.

Punjab Poultry Corpn. Ltd., S.C.O. 2419-20, Sector 22-C, Chandigarh
160022.
Functions: Manufacture and sale of poultry, cattle and pig feeds at its feed processing centres at Chandigarh, Patiala, Ludhiana, Jullundur and Gurdaspur. Sale of prok and its products and dressed chickens manufactured at the pork plant at Kharar.

Punjab Saltpetre Refinery Ltd., Industrial Estate, Firozepur City 152001.

Punjab Scooters Ltd., Nabha 147201.
Promoted by the Punjab State Industrial Development Corpn. Ltd. to manufacture 24,000 'Kesri-Super' 150 cc. scooters per annum.

Punjab Semiconductor Devices Ltd., B-76, Phase VIII, Ind. Area, SAS Nagar, Chandigarh 160055.
To manufacture 10 million semiconductor devices per year covering rectifiers, transistors etc. for entertainment, professional and military applications.

Punjab Spg. & Wvg. Mills Ltd., S.C.O. 54, 55 & 56, Sector 17-A, Chandigarh 160017.

Punjab State Civil Supplies Corpn. Ltd., 106-108, Sector 17-D, Chandigarh 160017.

Punjab State Electronics Devpt. & Production Corpn. Ltd., Bank of India Bldg., Sector 17-B Bank Square, Chandigarh 160017.
Subsidiary Companies: Punjab Digital Industrial Systems Ltd., Punjab Biomedical Equipments Ltd., Punjab Recorders Ltd., Punjab Electro-optics Systems Ltd., Consumer Electronics (Punjab) Ltd.

Punjab State Handloom & Textiles Devpt. Corpn. Ltd., S.C.O. 1128-29, Sector 22-B, Chandigarh 160022.

Punjab State Hosiery & Knitwear Devpt. Corpn. Ltd., SCO 3-A, Sector 7-C, Chandigarh.

Punjab State Industrial Devpt. Corpn. Ltd., S.C.O. 54, 55 & 56, Sector 17-A, Chandigarh 160017.
Chairman: T. K. A. Nair; *Mg. Director:* J. N. L. Srivastava.

Punjab State Irons Ltd., 30, Bays Bldg., Sector 17, Chandigarh 160017.

Punjab State Small Industries Corpn. Ltd., Batra Bldg., Sector 17, P.B. 11, Chandigarh 160017.

Punjab State Tubewell Corpn. Ltd., S.C.O. No. 28, Sector 26, Chandigarh 160017.

Punjab Tanneries Ltd., Nakodar Rd., Jullundur 144003.

Punjab Tyres Ltd., S.C.O. 54-56, Sector 17-A, Chandigarh 160017.

Punjab Wireless Systems Ltd., B-53, Phase VI, S.A.S. Nagar (Mohali), Chandigarh 160055.
Manufacturers and designers of VHF and HF radio communication products and system Engg.
Mg. Director: B. D. Kurana.

RAJASTHAN

Gangasagar Sugar Mills Ltd., Hi-Tech, Glass Division, Dholpur 328001.
The company manufacturers Hi-Tech, brand neutral laboratory glasswares and bottles.

Rajasthan Communications Ltd., Udyog Bhavan, Tilak Mrg., Jaipur 302005.

Rajasthan Drugs & Pharmaceuticals Ltd., Plot No. 215, Gali No. 1, Raja Park, Jaipur 302004.

Rajasthan Financial Corpn., Udyog Bhavan, Tilak Mrg., 'C' Scheme Jaipur 302005.
Functions: To provide financial assistance to medium and small-scale industrial concerns in the State.

Rajashtan Small Industries Corpn. Ltd., Udyog Bhawan, Tilak Marg, 'C' Scheme, Jaipur 302005.

Functions: It procures and distributes raw materials to the small scale industrial units; runs handicrafts emporia in Jaipur, New Delhi, Mount Abu, Agra, Bombay, Srinagar, Udaipur and Calcutta; organises exhibitions and fairs in the country and abroad for export promotion of handicrafts; runs worsted spinning mills at Churu and Ladnun, a furniture making centre and a design development and research centre for handicrafts and Trade Centre-cum-Industrial Museum at Jaipur and Air Cargo Complex at (Sanganer Airport), Jaipur.
Mg. Director: N.K. Berwa.

Rajashtan State Agro Industries Corpn. Ltd., O-1, Subhash Nagar, Jhotwara Road, Jaipur 302006.

Rajasthan State Dairy Devpt. Corpn. Ltd.,15, Uniara Gardens, Jaipur 302004.

Rajasthan State Granites & Marbles Ltd., Udyog Bhawan, Tilak Mrg., Jaipur 302005.

Rajasthan State Hotels Corpn. Ltd., State Hotel Premises, M.I. Rd., Jaipur 302001.
Objects: To meet the growing needs of internal and external tourist traffic and provide facilities at reasonable rates. The Corporation runs two hotels: (1) State Hotel (Khasa Kothi), Jaipur and (2) State Hotel (Anand Bhawan), Udaipur.

Rajasthan State Industrial Devpt. & Mineral Devpt. Corpn. Ltd., Udyog Bhawan, Tilak Mrg., Jaipur 302005.

Rajasthan State Mines & Minerals Ltd., 133, Saheli Marg, Udaipur 313001.

Rajasthan State Tanneries Ltd., State Enterprises Dept., P-6, Tilak Marg, C Scheme, Jaipur 302005.

Rüco Ltd., 28-B, Takhte Shahi Rd., Jaipur 302004.

SIKKIM

Govt. Fruit Preservation Factory, Singtam 737134.

Sikkim Mining Corpn., Rangpo 737132. (A joint enterprise of the Govt. of Sikkim and Govt. of India).
Functions: Produces copper, lead and zinc concentrates from poly metallic ore at Bhotang mines, Rangpo.
Chairman: P. G. Pradhan.

TAMIL NADU

Anna Transport Corpn. Ltd., 12, Ramakrishna Rd., Salem 636007.

Cheran Transport Corpn. Ltd., 37, Mettupalayam Rd., Coimbatore 641011.

Electronics Corpn. of Tamil Nadu Ltd., 735, Anna Salai, Madras 600002.

Industrial & Technical Consultancy Organisation of Tamil Nadu Ltd., 50-A, Greams Rd., Madras 600006.
Joint venture of ICICI, IDBI, IFCL, State Corpns. & banks. Serving all types of consultancy needs of a large number of small & medium entrepreneurs; extending consultancy support to State level financial insttns. & commercial banks in the task of indl. devpt. of the State.
Mg. Director: N. Viswanath.

Institute of Road Transport, Madras 600013.

Kattabomman Transport Corpn. Ltd., Nesamony Nagar, Ranithottam, Madurai 625004.

Madurai Pandiyan Engg. Corpn. Ltd., G.S.T. Rd., Pasumalai, Madurai 625004.
Established under the 'Half-a-Million Job Programme', for providing employment to the unemployed technicians. Undertakes bus body building, tyre retreading, automobile parts reconditioning and maintenance of buses.

Overseas Manpower Corpn. Ltd., 150, San Thome High Rd., Madras 600004.
Functions: Promotion of employment in foreign countries of skilled and semi-skilled persons; setting up of joint indl. ventures in India & abroad; promotion of export of Indian products.
Chairman: G. Jas.

Poompuhar Shipping Corpn. Ltd., Kuralagam, Madras 600001.
At present engaged principally on coastal trade carrying coal for Tamil Nadu thermal stations; has plans for early expansion and participation in international trade.
Chairman: S. P. Srinivasan, I.A.S.; *Mg. Director:* P. C. Cyriac, I.A.S.

Poompuhar—The Tamil Nadu Handicrafts Devpt. Corpn. Ltd., 26, Dr. Muniappa Rd., Kilpauk, Madras 600010.

Southern Brick Works Ltd., 8, Mowbrays Rd., Madras 600014.

Southern Structurals Ltd., Pattabiram, Madras 600072.
Functions: Manufactures EOT cranes, gantry cranes, mining equipments like bucket wheel excavators, structural fabrications, etc.

State Industries Promotion Corpn. of Tamil Nadu Ltd., 51/52, Greams Rd., Madras 600006.

TACEL Mechanised Brick Plant, Thirumazhisai, Madras 600065.
A project by Tamil Nadu Ceramics Ltd., Madras, to produce modular bricks, red clay structurals like hollow ceiling blocks, partition blocks, weather course tiles, facing bricks etc.

Tamil Nadu Adi Dravidar Housing & Development Corpn. Ltd., 5-C D.S. Pather St., East Shanmughapuram, Villupuram 605602.

Tamil Nadu Agro Industries Corpn. Ltd., Ind. Estate, Guindy, Madras 600032.
Tamil Nadu Backward Economic Development Corpn. Pvt. Ltd.,807, Anna Salai, Madras 600002.

Tamil Nadu Cements Corpn. Ltd., P.O. Tamilnad Cements 626127, via Rajapalayam, Ramanathapuram Dist. *Regd. Office:* 735, Anna Salai, LLA Bldgs., Madras 600002.
Manufactures 400,000 tonnes of Arasu brand Portland cement & Portland Pozzolana cement per annum & 36,000 tonnes of A.C. sheets per annum.
Chairman: C.V.R. Panickar; *Mg. Director:* Santha Sheela Nair.

Tamil Nadu Ceramics Ltd., 25, Cenotaph Rd., Teynampet, Madras 600018.

Tamil Nadu Chemical Products, 145 146, Nungambakkam High Rd., Madras 600034.

Tamil Nadu Chromates & Chemicals Ltd., Plot No. 25, Sipcot Ind. Complex, Post Box No. 2, Ranipet 632403 (N. Arcot Dist).

Manufactures 3,300 tonnes of Basic Chromium Sulphate Tanning (BCT) powder, 4,350 tonnes of Sodium Dichromate and 3,400 tonnes of Sodium Sulphate.
Chairman: G. Kamalaratnam.

Tamil Nadu Civil Supplies Corpn. Ltd., 42, Thambusamy Rd., Kilpauk, Madras 600010.
Functions: Market intervention in and price stabilisation of all foodgrains and other essential commodities. Also undertakes wholesale retail trade in such commodities.
Chairman & Mg. Director: R. Pasupathi.

Tamil Nadu Co-op. Milk Producers' Fedn. Ltd., Aavin Illam, Madhavaram, Madras 600051.
Functions: The Fedn. is in charge of development of dairying in Tamil Nadu. It also manufactures whole milk powder, skim milk powder, ice cream mix powder, pasteurised table butter and ghee under the popular brand name of 'AAVIN'. The Fedn. supplies milk in two major cities of Madras & Madurai and undertakes to implement "Operation Flood" schemes.
Chairman: T. V. Antony; *Mg. Director:* A. M. Swaminathan, I.A.S.

Tamil Nadu Co-op. Textile Processing Mills Ltd., Erode 638005.
Tamil Nadu Corpn. for Development of Women Ltd., New Bldgs., 3rd Flr., Fort St. George, Madras 600009.
Tamilnadu Fisheries Devpt. Corpn. Ltd., 15, Boag Rd., T. Nagar, Madras 600017.
Functions: Deep sea fishing with Mexican trawlers, operation of purse-seiners, coastal fishing by small mechanised boats, export of shrimps and dried fish, etc. etc.

Tamil Nadu Forest Plantation Corpn. Ltd., No. 4, Promenade Rd., Cantt., Tiruchirapalli 620001.
Chairman: S. A. Subramani; *Mg. Director:* S. Kondas.

Johannesburg, S. Africa	2.00 p.m.
Karachi, Pakistan	5.00 p.m.
Kingston, Jamaica	7.00 a.m.
Kuala Lumpur, Malaysia	7.30 p.m.
Lagos, Nigeria	1.00 p.m.
Leningrad, U.S.S.R.	3.00 p.m.
Lima, Peru	7.00 a.m.
Lisbon, Portugal	12 Noon
London	12 Noon
Los Angeles, U.S.A.	4.00 a.m.
Luxembourg	1.00 p.m.
Madrid, Spain	1.00 p.m.
Mandalay, Burma	6.30 p.m.
Melbourne, Australia	10.00 p.m.
Mexico City	6.00 a.m.
Montevideo, Uruguay	9.00 a.m.
Montreal, Canada	7.00 a.m.
Moscow, U.S.S.R.	3.00 p.m.
Nairobi, Kenya	3.00 p.m.
New York	7.00 a.m.
Nicosia, Cyprus	2.00 p.m.
Oslo, Norway	1.00 p.m.
Ottawa, Canada	7.00 a.m.
Panama	7.00 a.m.
Paris	1.00 p.m.
Peking, China	8.00 p.m.
Perth, Australia	8.00 p.m.

Port of Spain, Trinidad	8.00 a.m.
Prague, Czechoslovakia	1.00 p.m.
Quebec, Canada	7.00 a.m.
Quito, Ecuador	7.00 a.m.
Reykjavik, Iceland	11.00 a.m.
Rio de Janeiro	9.00 a.m.
Rome	1.00 p.m.
St. John's, Newfoundland	8.30 a.m.
Salisbury, Southern Rhodesia	2.00 p.m.
San Francisco, U.S.A.	4.00 a.m.
Santiago, Chile	8.00 a.m.
Seoul, Korea	8.30 p.m.
Singapore	7.30 p.m.
Stalingrad, U.S.S.R.	4.00 p.m.
Stockholm, Sweden	1.00 p.m.
Sofia, Bulgaria	2.00 p.m.
Suva, Fiji	12 Midnight
Sydney, Australia	10.00 p.m.
Teheran, Iran	3.30 p.m.
Tirana, Albania	1.00 p.m.
Tokyo, Japan	9.00 p.m.
Toronto, Canada	7.00 a.m.
Vancouver, Canada	4.00 a.m.
Vienna, Austria	1.00 p.m.
Warsaw, Poland	1.00 p.m.
Wellington, New Zealand	12 Midnight
Winnipeg, Canada	6.00 a.m.

SPORTS

THE origin of Olympic games goes back to Olympia in Greece which was held in honour of Zeus and dates back to 776 B.C. to 394 A.D. Olympiads covered the four years between each celebration of the Olympic games. The festivals included competitions in literature, art, drama, rhetoric, music and gymnastics. In 1896 Baron Pierre de Coubertin fathered the modern Olympic Games. "The important thing" he said, "in the Olympic Games is not winning but taking part. The essential thing in life is not conquering but fighting well."

The U.S.A. boycotted the 1980 Moscow Olympics because of the Soviet intervention in Afghanistan.

The other major powers who stayed away from joining the Olympics were China, Japan, West Germany and Canada. Only 81 nations took part in the Olympic games in 1980.

OLYMPIC CHAMPIONS

Track and Field-Men

Year	*Winner*	*Country*	*Time (Seconds)*
	100 Metres		
1896	Thomas Burke	U.S.A.	12.0
1900	Francis Jarvis	"	10.8
1904	Archie Hahn	"	11.0
1908	Reginald Walker	S. Africa	10.8
1912	Ralph Craig	U.S.A.	10.8
1920	Charles Paddock	"	10.8
1924	Harold Abrahams	G.B.	10.6
1928	Percy Williams	Canada	10.8
1932	Eddie Tolan	U.S.A.	10.3
1936	Jessie Owens	"	10.3
1948	Harrison Dillard	"	10.3
1952	Lindy Remigino	"	10.4
1956	Bobby Morrow	"	10.5
1960	Armin Hary	Germany	10.0
	100 Metres (Contd.)		
1964	Bob Hayes	U.S.A.	10.0
1968	Hines	"	9.9
1972	Valeriy Borzov	U.S.S.R.	10.14
1976	Hasley Crawford	Trinidad	10.06
1980	Allan Wells	G.B.	10.25
	200 Metres		
1900	J. Walter Tewksbury	U.S.A.	22.2
1904	Archie Hahn	"	21.6
1908	Robert Kerr	Canada	22.6
1912	Ralph Craig	U.S.A.	21.7
1920	Allan Woodring	"	22.0
1924	Jackson Scholz	"	21.6
1928	Percy Williams	Canada	21.8
1932	Eddie Tolan	U.S.A.	21.2
1936	Jessie Owens	"	20.7
1948	Mel Patton	"	21.1
1952	Andrew Stanfield	"	20.7
1956	Bobby Morrow	"	20.6
1960	Livio Berruti	Italy	20.5
1964	Henry Carr	U.S.A.	20.3
1968	Smith	"	19.8
1972	Valeriy Borzov	U.S.S.R.	20.0
1976	Donald Quarrie	Jamaica	20.23
1980	Pietro Mennea	Italy	N.A.
	400 Metres		
1896	Thomas Burke	U.S.A.	54.2
1900	Maxey Long	"	49.4
1904	Harry Hilman	"	49.2
1908	Wyndham Halswelle	G.B.	50.0
1912	Charles Reidpath	U.S.A.	48.2
1920	Beville Rudd	S. Africa	49.6

Year	*Winner*	*Country*	*Time (seconds)*
400 Metres (Contd.)			
1924	Eric Liddell	G.B.	47.6
1928	Ray Barbuti	U.S.A.	47.8
1932	William Carr	"	46.2
1936	Archie Williams	"	46.5
1948	Arthur Wint	Jamaica	46.2
1952	George Rhoden	"	45.9
1956	Charles Jenkins	U.S.A.	46.7
1960	Otis Davis	"	44.9
1964	Mike Larabee	"	45.1
1968	Evans	"	43.8
1972	Vince Mathews	"	44.7
1976	Alberto Juantorena	Cuba	44.26
1980	Viktor Markin	U.S.S.R.	44.60
800 Metres			
			(mts. seconds)
1896	Edwin Flack	G.B.	2.11.0
1900	Alfred Tysoe	"	2.01.4
1904	James Lightbody	U.S.A.	1.56.0
1908	Melvin Shepperd	"	1.52.8
1912	James Meredith	"	1.51.9
1920	Albert Hill	G.B.	1.53.4
1924	Douglas Lowe	"	1.52.4
1928	Douglas Lowe	"	1.51.8
1932	Thos. Hampson	"	1.49.8
1936	John Woodruff	U.S.A.	1.52.9
1948	Mal Whitfield	"	1.49.2
1952	Mal Whitfield	"	1.49.2
1956	Thomas Courtney	"	1.47.7
1960	Peter Snell	New Zealand	1.46.3
1964	Peter Snell	"	1.45.1
1968	Doubell	Australia	1.44.3
1972	David Wottle	U.S.A.	1.45.9
1976	Alberto Juantorena	Cuba	1.43.50
1980	Steve Ovett	G.B.	1.45.40
1,500 Metres			
1896	Edwin Flack	G.B.	4.33.2
1900	Charles Bennett	"	4.06.2
1904	James Lightbody	U.S.A.	4.05.4
1908	Melvin Shepperd	"	4.03.4
1912	Arnold Jackson	G.B.	3.56.8
1920	Albert Hill	"	4.01.8
1924	Paavo Nurmi	Finland	3.53.6
1928	Harry Larva	"	3.53.2
1932	Luigi Beccali	Italy	3.51.2
1936	Jack Lovelock	New Zealand	3.47.8
1948	Henry Eriksson	Sweden	3.49.8
1952	Joseph Barthel	Luxembourg	3.45.2
1956	Ron Delaney	Ireland	3.41.2
1960	Herbert Eliot	Australia	3.35.6
1964	Peter Snell	New Zealand	3.38.1
1968	K. Keino	Kenya	3.34.9
1972	Pekka Vasala	Finland	3.36.3
1976	John Walker	New Zealand	3.39.17
1980	Sebastian Coe	G.B.	3.38.40
5,000 Metres			
1912	Hannes Kolehmainen	Finland	14.36.6
1920	Joseph Guillemot	France	14.55.6
1924	Paavo Nurmi	Finland	14.31.2
1928	Willie Ritola	"	14.38.0
1932	Lauri Lehtinen	"	14.30.0
1936	Gunnar Hockerd	"	14.22.2
1948	Gaston Reiff	Belgium	14.17.6
1952	Emil Zatopek	Czechoslovakia	14.06.6
1956	Vladimir Kuts	U.S.S.R.	13.39.6

Year	*Winner*	*Country*	*Time (Seconds)*
5,000 Metres (Contd.)			
1960	Murray Halberg	New Zealand	13.43.4
1964	Bob Schul	U.S.A.	13.48.8
1968	Gammoudi	Tunisia	14.05.0
1972	Lasse Viren	Finland	13.26.4
1976	Lasse Viren	"	13.27.76
1980	Miruts Yifter	Ethiopia	13.21.00
10,000 Metres			
1912	Hannes Kolehmainen	Finland	31.20.8
1920	Paavo Nurmi	"	31.45.8
1924	Willie Ritola	"	30.23.2
1928	Paavo Nurmi	"	30.18.8
1932	Janusz Kusocinski'	Poland	30.11.4
1936	Ilmari Salmenin	Finland	30.15.4
1948	Emil Zatopek	Czechoslovakia	29.59.6
1952	Emil Zatopek	"	29.17.0
1956	Vladimir Kuts	U.S.S.R.	28.45.6
1960	Petr Bolotnikov	"	28.32.2
1964	Billy Mills	U.S.A.	28.24.4
1968	Temu	Kenya	29.27.4
1972	Lasse Viren	Finland	27.38.4
1976	Lasse Viren	"	27.40.38
1980	Miruts Yifter	Ethiopia	27.42.70
Marathon			
			(hrs. mts. secs.)
1896	Spindon Loues	Greece	2.58.50.0
1900	Michel Teato	France	2.59.45.0
1904	Thomas Hicks	U.S.A.	3.28.53.0
1908	John Hayes	"	2.55.18.4
1912	Kenneth Macarthur	S. Africa	2.36.54.8
1920	Hannes Kolehmainen	Finland	2.32.35.8
1924	Albin Stenroos	France	2.41.22.6
1928	El Ouafi	"	2.32.57.0
1932	Juan Zabala	Argentina	2.31.36.0
1936	Kitei Son	Japan	2.29.19.2
1948	Delfo Cabrera	Argentina	2.34.51.6
1952	Emil Zatopek	Czechoslovakia	2.23.03.2
1956	Alain Mimoun	France	2.25.00.0
1960	Abebe Bikila	Ethiopia	2.15.16.2
1964	Abebe Bikila	"	2.12.11.2
1968	Wolde	"	2.20.26.4
1972	Frank Shorter	U.S.A.	2.12.19.7
1976	Waldemer Cierpinski	G.D.R.	2.09.55.0
1980	Waldemer Cierpinski	"	2.11.03.0
20,000-Metre Walk			
1956	Leonid Spirine	U.S.S.R.	1.31.27.0
1960	Vladimir Golubnichy	"	1.34.07.2
1964	Kenneth Mathews	G.B.	1.29.34.0
1968	Vladimir Golubnichy	U.S.S.R.	1.33.58.4
1972	Peter Frenkel	E. Germany	1.26.42.6
1976	Daniel Batista	Mexico	1.24.40.6
1980	Maurizio Damilano	Italy	1.23.35.5
50,000-Metre Walk			
1932	Thomas Greene	G.B.	4.50.10.0
1936	Harold Whitlock	"	4.30.41.4
1948	John Ljunggren	Sweden	4.41.52.6
1952	Guiseppe Dordoni	Italy	4.28.07.8
1956	Norm. Reed	New Zealand	4.30.42.8
1960	Donald Thomson	G.B.	4.25.30.0
1964	Abdon Pamich	Italy	4.11.12.4
1968	Hohne	G.D.R.	4.20.13.6
1972	B. Kannenberg	W. Germany	3.56.11.6
1980	Hartwig Gauder	G.D.R.	3.49.24.0

4x100-Metre Relay

Year and winner of gold medal (Country) respectively:

1912 Great Britain; 1920 United States; 1924 United States; 1928 United States; 1932 United States; 1936 United States; 1948 United States; 1952 United States; 1956 United States; 1960 Germany; 1964 United States; 1968 United States; 1972 United States; 1976 United States; 1980 U.S.S.R.

4x400-Metre Relay

1908 United States; 1912 United States; 1920 Great Britain; 1924 United States; 1928 United States; 1932 United States; 1936 Great Britain; 1948 United States; 1952 Jamaica; 1956 United States; 1960 United States; 1964 United States; 1968 United States; 1972 Kenya; 1976 United States; 1980 U.S.S.R.

110-Metre Hurdles

Year	*Winner*	*Country*	*Time (Seconds)*
1896	Thomas Curtis	U.S.A.	17.6
1900	Alvin Kraenzlein	"	15.4
1904	Fredrick Schule	"	16.0
1908	Forrest Smithson	"	15.0
1912	Fredrick Kelly	"	15.1
1920	Earl Thomson	Canada	14.8
1924	Daniel Kinsey	U.S.A.	15.0
1928	Sydney Atkinson	S. Africa	14.8
1932	George Saling	U.S.A.	14.6
1936	Forrest Townes	"	14.2
1948	William Porter	"	13.9
1952	Harrison Dillard	"	13.7
1956	Lee Calhoun	"	13.5
1960	Lee Calhoun	"	13.8
1964	Hayes Jones	"	13.6
1968	Davenport	"	13.3
1972	Rodney Milburn	"	13.24
1976	Guy Drut	France	13.30
1980	Thomas Munkelt	G.D.R.	13.39
	400-Metre Hurdles		
1900	J. Walter Tewksbury	U.S.A.	57.6
1904	Harry Hillman	"	53.0
1908	Charles Bacon	"	55.0
1920	Frank Loomis	"	54.0
1924	F. Morgan Taylor	"	52.6
1928	Lord David Burghley	G.B.	53.4
1932	Robert Tisdall	Ireland	51.8
1936	Glenn Hardin	U.S.A.	52.4
1948	Roy Cochran	"	51.1
1952	Charles Moore	"	50.8
1956	Glenn Davis	"	50.1
1960	Glenn Davis	"	49.3
1964	Rex Cawley	"	49.6
1968	Hemery	G.B.	48.1
1972	John Akii-Bua	Uganda	47.82
1976	Edwin Moses	U.S.A.	47.64
1980	Volker Beck	G.D.R.	48.70
			(hrs. mts. secs.)
	3,000-Metre Steeplechase		
1920	Percy Hodge	G.B.	10.00.4
1924	Willie Ritola	Finland	9.33.6
1928	Toiva Laukola	"	9.21.8
1932	Volmari Iso-Hollo	"	10.33.4
1936	Volmari Iso-Hollo	"	9.03.8
1948	Thore Sjostrand	Sweden	9.04.6
1952	Horace Ashenfelter	U.S.A.	8.45.4
1956	Chris Brasher	G.B.	8.41.2
1960	Zdzislav Krzyszkowiak	Poland	8.34.2

Year	*Winner*	*Country*	*Time (hrs. mts. secs.)*
	3.000-Metre Steeplechase (Contd.)		
1964	Gaston Roelants	Belgium	8.30.8
1968	Biwatte	Kenya	8.51.0
1972	Kip Keino	"	8.23.6
1976	Anders Garderud	Sweden	8.08.2
1980	Bronislaw Malinowski	Poland	8.09.70

Year	*Winner*	*Country*	*Height*
	Pole Vault		
1896	Welles Hoyt	U.S.A.	10′ 9¾″
1900	Irving Baxter	"	10′ 9.9″
1904	Charles Drovak	"	11′ 6″
1908	Albert Gilbert	"	12′ 2″
	Edward Cook	"	12′ 2″
1912	Harry Babcock	"	12′ 11½″
1920	Frank Foss	"	12′ 5.9″
1924	Lee Barnes	"	12′ 11½″
1928	Sabin Carr	"	13′ 9.3″
1932	William Miller	"	14″ 1.7″
1936	Earle Meadows	"	14′ 3¼″
1948	O. Guinn Smith	"	14′ 1¼″
1952	Robert Richards	"	14′ 11¼″
1956	Robert Richards	"	14′ 11½″
1960	Donald Bragg	"	15′ 5.1″
1964	Fred Hansen	"	16′ 8¾″
1968	Seagren	"	17′ 8½″
1972	Wolfgang Nordwig	E. Germany	18′ ½″
1976	Tedeusz Slusrasky	Poland	18′ ½″
1980	Wladydslaw Kozakiewicz	"	5.78 mtrs.
	High Jump		
1896	Ellery Clark	U.S.A.	5′ 11¼″
1900	Irving Baxter	"	6′ 2.4″
1904	Samuel Jones	"	5′ 11″
1908	Harry Porter	"	6′ 3″
1912	Alma Richards	"	6′ 4″
1920	Richard Landon	"	6′ 4¼″
1924	Harold Osborne	"	6′ 5.9″
1928	Robert King	"	6′ 4.3″
1932	Duncan Mcnaughton	Canada	6′ 5.5″
1936	Cornelius Johnson	U.S.A.	6′ 7.9″
1948	John Winter	Australia	6′ 6″
1952	Walter Davies	U.S.A.	6′ 8¼″
1956	Charles Dumas	"	6′ 11¼″
1960	Robert Shavlakadze	U.S.S.R.	7′ 1″
1964	Valerie Brumel	"	7′ 1¾″
1968	Fosbury	U.S.A.	7′ 4¼″
1972	Yuri Tarmak	U.S.S.R.	7′ 3½″
1976	Jacek Wszola	Poland	7′ 4½″
1980	Gerd Wessig	G.D.R.	2.36 mtrs.

Year	*Winner*	*Country*	*Length*
	Long Jump		
1896	Ellery Clark	U.S.A.	20′ 10″
1900	Alvin Kraenzlein	"	23′ 6.7″
1904	Myer Prinstein	"	24′ 1″
1908	Frank Irons	"	24′ 6½″
1912	Albert Gutterson	"	24′ 11¼″
1920	William Pettersson	Sweden	23′ 5½″
1924	DeHart Hubbard	U.S.A.	24′ 5.1″
1928	Edward Hamm	"	25′ 4¾″
1932	Edward Gordon	"	25′ ¾″

Year	*Winner*	*Country*	*Length*
	Long Jump (Contd.)		
1936	Jesse Owens	U.S.A.	26′ 5.3″
1948	Willy Steele	"	25′ 8″
1952	Jerome Biffle	"	24′ 10″
1956	Gregory Bell	"	25′ 8¼″
1960	Ralph Boston	"	26′ 7¾″
1964	Lynn Davis	G.B.	26′ 5½″
1968	Beamon	U.S.A.	29′ 2½″
1972	Randy Williams	"	27′
1976	Amie Robinson	"	27′ ½″
1980	Leet Dombrowski	G.D.R.	8.54 mtrs.
	Triple Jump		
1896	James Connoly	U.S.A.	45′
1900	Myer Prinstein	"	47′ 4¼″
1904	Myer Prinstein	"	47′
1908	Timothy Ahearne	G.B.	48′ 11½″
1912	Gustaf Lindblom	Sweden	48′ 5.1″
1920	Vilho Tuulos	Finland	47′ 6.7″
1924	Archibald Winter	Australia	50′ 11.1″
1928	Mikio Oda	Japan	49′ 10¹³⁄₁₆″
1932	Chuhei Nambus	"	51′ 7″
1936	Naoto Tajima	"	52′ 5.7″
1948	Arne Ahman	Sweden	50′ 6¼″
1952	Adhemar Farreira da Silva	Brazil	53′ 2½″
1956	Adhemar Farreira da Silva	"	53′ 7½″
1960	Jozef Schmidt	Poland	55′ 1¾″
1964	Jozef Schmidt	"	55′ 3½″
1968	Viktor Saneev	U.S.S.R.	57′ ¾″
1972	Viktor Saneev	"	56′ 10″
1976	Viktor Saneev	"	50′ 8.7″
1980	Jaak Uudmae	"	17.35 mtrs.
	16-lb. Shot-Put		
1896	Robert Garett	U.S.A.	36′ 9¾″
1900	Richard Sheldon	"	46′ 3.1″
1904	Ralph Rose	"	48′ 7″
1908	Ralph Rose	"	46′ 7½″
1912	Patrick McDonald	"	50′ 4″
1920	Ville Porhola	Finland	48′ 7.1″
1924	Clarence Houser	U.S.A.	49′ 2½″
1928	John Kuck	"	52′ ¹¹⁄₁₆″
1932	Leo Sexton	"	52′ 6³⁄₁₆″
1936	Hans Woelke	Germany	53′ 1¾″
1948	Wilbur Thompson	U.S.A.	56′ 2″
1952	Parry O'Brein, Jr.	"	57′ 1½″
1956	Parry O'Brein, Jr.	"	60′ 11″
1960	William Nieder	"	64′ 6¾″
1964	Dallas Long	"	66′ 8½″
1968	Matson	"	67′ 4¾″
1972	Wladyslaw Komar	Poland	69′ 5″
1976	Udo Beyer	G.D.R.	69′¾″
1980	Vladimir Kiselyov	U.S.S.R.	21.35 mtrs.
	Discus Throw		
1896	Robert Garett	U.S.A.	95′ 7½″
1900	Rudolf Bauer	Hungary	118′ 2.9″
1904	Martin Sheridan	U.S.A.	128′ 10½″
1908	Martin Sheridan	"	134′ 2″
1912	Armas Taipale	Finland	145′ ⁹⁄₁₆″
1920	Elmer Niklander	"	146′ 7″
1924	Clarence Houser	U.S.A.	151′ 5¼″
1928	Clarence Houser	"	155′ 2⅘″
1932	John Anderson	"	162′ 4.7″
1936	Kenneth Carpenter	"	165′ 7½″

Year	*Winner*	*Country*	*Length*
	Discus Throw (Contd.)		
1948	Adolfo Consolini	Italy	173′ 2″
1952	Sim Iness	U.S.A.	180′ 6½″
1956	Alfred Oerter	"	184′ 10½″
1960	Alfred Oerter	"	194′ 2″
1964	Alfred Oerter	"	200′ 1½″
1968	Alfred Oerter	"	212′ 6½″
1972	Ludwik Danek	Czechoslovakia	210′ 2″
1976	Mac Wilkins	U.S.A.	221′ 5.4″
1980	Viktor Resshchupkin	U.S.S.R.	66.64 mtrs.
	16-lb. Hammer Throw		
1900	John Flanagan	U.S.A.	167′ 4″
1904	John Flanagan	"	168′ 1″
1908	John Flanagan	"	170′ 4¼″
1912	Mathew McGarth	"	179′ 7.1″
1920	Patrick Ryan	"	173′ 5.5″
1924	Frederick Tootell	"	174′ 10¼″
1928	Patrick O'Callaghan	Ireland	168′ 7½″
1932	Patrick O'Callaghan	"	176′ 11.1″
1936	Karl Hein	Germany	185′ 4¼″
1948	Imre Nemeth	Hungary	183′ 11½″
1952	Jozsef Csermak	"	197′ 11¾″
1956	Harold Connolly	U.S.A.	207′ 3½″
1960	Vasily Rudenkov	U.S.S.R.	220′ 1.5″
1964	Romuald Klim	"	228′ 10½″
1968	Zsivotzky	Hungary	240′ 8″
1972	Bandarchuck	U.S.S.R.	247′ 8″
1976	Yuri Sedykh	"	254′ 3¾″
1980	Yuri Sedykh	"	81.80 mtrs.
	Javelin Throw		
1908	Erik Lemming	Sweden	179′ 10½″
1912	Erik Lemming	"	198′ 11¼″
1920	Jonni Myyra	Finland	215′ 9¾″
1924	Jonni Myyra	Finland	206′ 6¾″
1928	Erik Lundquist	Sweden	218′ 6⅛″
1932	Matti Jarvinen	Finland	238′ 7″
1936	Gerhard Stoeck	Germany	235′ 8⁵⁄₁₆″
1948	Tapio Rautavaara	Finland	228′ 10½″
1952	Cy Young	U.S.A.	242′ ¾″
1956	E. Danielson	Norway	281′ 2¼″
1960	Viktor Cybulenko	U.S.S.R.	277′ 8⅜″
1964	Pauli Nevala	Finland	271′ 2¼″
1968	Lusis	U.S.S.R.	295′ 7¼″
1972	Klaus Wolfermann	W. Germany	296′ 9½″
1976	Miklos Nemeth	Hungary	310′ 3¾″
1980	Dainis Kula	U.S.S.R.	91.20 mtrs.

Decathlon

Year	*Winner*	*Country*	*Points*
1912	Hugo Wislander	Sweden	7724.49
1920	Helge Lovland	Norway	6804.35
1924	Harold Osborn	U.S.A.	7710.77
1928	Paavo Yrjola	Finland	8053.29
1932	James Bausch	U.S.A.	8462.23
1936	Glenn Morris	"	7900.00
1948	Robert Mathias	"	7139.00
1952	Robert Mathias	"	7887.00
1956	Milton Campbell	"	7937.00
1960	Rafer Johnson	"	8392.00
1964	Willie Holdorf	Germany	7877.00
1968	Toomey	U.S.A.	8193.00
1972	Nikolai Avilow	U.S.S.R.	8454.00
1976	Bruce Jenner	U.S.A.	8618.00
1980	Daley Thompson	Britain	8495.00

WOMEN'S
Track and Field

100-Metre

Year	Winner	Country	Time (Seconds)
1928	Elizabeth Robinson	U.S.A.	12.2
1932	Stanislawa Walasiewicz	Poland	11.9
1936	Helen Stephens	U.S.A.	11.5
1948	Fanny Blankers-Koen	Netherlands	11.9
1952	Marjorie Jackson	Australia	11.5
1956	Betty Cuthbert	"	11.5
1960	Wilma Rudolph	U.S.A.	11.0
1964	Wyomia Tyus	"	11.4
1968	Wyomia Tyus	"	11.0
1972	Renate Stecher	G.D.R.	11.07
1976	Annegret Richter	W. Germany	11.01
1980	Lyudmila Kondratyeva	U.S.S.R.	11.06

200-Metre

Year	Winner	Country	Time (Seconds)
1948	Fanny Blankers-Koen	Netherlands	24.4
1952	Marjorie Jackson	Australia	23.7
1956	Betty Cuthbert	"	23.4
1960	Wilma Rudolph	U.S.A.	24.0
1964	Edith Meguire	"	23.0
1968	Szewinska	Poland	22.5
1972	Renate Stecher	G.D.R.	22.4
1976	Baerbel Eckert	"	22.37
1980	Barbel Woekel	"	22.03

400-Metre

Year	Winner	Country	Time (Seconds)
1976	Iewn Szewinska	Poland	49.29
1980	Marita Koch	G.D.R.	48.88

800-Metre

Year	Winner	Country	Time (Seconds)
1928	Linda Radke	Germany	2.16.8
1960	Ljudmilla Sehvcova	Poland	2.04.3
1964	Ann Packer	G.B.	2.01.1
1968	Manning	U.S.	2.00.9
1972	H. Falck	W. Germany	1.58.6
1976	Tatyana Kazankina	U.S.S.R.	1.54.94
1980	Nadezhda Olizarenko	,,	1.53.50

1,500-Metre

Year	Winner	Country	Time (Seconds)
1976	Tatyana Kazankina	U.S.S.R.	4.05.48
1980	Tatyana Kazankina	,,	3.56.60

4×100-Metre Relay

Year	Winner	Country	Time (Seconds)
1976		G.D.R.	0.42.55
1980		,,	0.41.60

4×400-Metre Relay

Year and winner respectively: 1928 Canada; 1932 U.S.; 1936 U.S.; 1948 Netherlands; 1952 U.S.; 1956 Australia; 1960 U.S.; 1964 Poland; 1968 U.S.; 1972 W. Germany; 1976 G.D.R.; 1980 U.S.S.R.

80-Metre Hurdles

Year	Winner	Country	Time (Seconds)
1932	Mildred Didrikson	U.S.A.	11.7
1936	Trebisonda Villa	Italy	11.7
1948	Fanny Blankers-Koen	Netherlands	11.2
1952	Shirley Strickland de la Hunty	Australia	10.9
1956	Shirley Strickland de la Hunty	,,	10.7
1960	Irina Press	U.S.S.R.	10.8
1964	Karin Balzer	Germany	10.5
1968	Caird	Australia	10.3

100-Metre Hurdles

Year	Winner	Country	Time (Seconds)
1972	Annelie Ehrhardt	G.D.R.	12.59
1976	Johanna Schaller	,,	12.77
1980	Vera Komisera	U.S.S.R.	12.56

High Jump

Year	Winner	Country	Height
1928	Ethel Catherwood	Canada	5′ 3″
1932	Jean Shiley	U.S.A.	5′ 5¼″
1936	Ebolya Csak	Hungary	5′ 3″
1948	Alice Coachman	U.S.A.	5′ 6⅛″
1952	Esther Brann	S. Africa	5′ 5¾″
1956	Mildred Macdaniel	U.S.A.	5′ 9¼″
1960	Iolanda Balas	Rumania	6′ ¼″
1964	Iolanda Balas	,,	6′ 2⅔″
1968	Rezkova	Czechoslovakia	5′ 11¾″
1972	Ulrike Meyfarth	G.D.R.	6′ 3¼″
1976	Rosemarie Ackermann	,,	6′ 3¾″
1980	Sara Simeoni	Italy	1.97 mtrs.

SWIMMING
Men

Year	Winner	Country	Time (mts. seconds)
	100-Metre Freestyle		
1980	Woithe Jarg	G.D.R.	0.50.40
	200-Metre Freestyle		
1980	Sergei Kopliakov	U.S.S.R.	1.49.81
	400-Metre Freestyle		
1980	Vladimir Salnikov	U.S.S.R.	3.51.31
	1,500-Metre Freestyle		
1980	Vladimir Salnikov	U.S.S.R.	14.58.29
	4×200-Metre Freestyle		
1980	Sergei Kopliakov Vladimir Salnikov Ivor Stukolkin Anderi Kryov	U.S.S.R.	7.23.50
	100-Metre Breaststroke		
1980	Duncan Goodhew	G.D.R.	1.03.34
	200-Metre Breaststroke		
1980	Roberto Zulpa	U.S.S.R.	2.15.85
	100-Metre Butterfly		
1980	Par Arvidsson	Swe.	0.54.92
	200-Metre Butterfly		
1980	Sergei Fesenko	U.S.S.R.	1.59.76
	100-Metre Backstroke		
1980	Bengt Baron	Swe.	0.56.33
	200-Metre Backstroke		
1980	Sandor Wladar	Hun.	1.93.00
	400-Metre Individual Medley		
1980	Aleksandr Sidorenko	U.S.S.R.	3.45.70
	4×100-Metre Medley		
1980	Mark Kerry Peter Evans Mark Tonelli Neil Brooks	Aus.	4.08.76

Year	*Winner*	*Country*	*Time (mts. seconds)*
	WOMEN		
	100-Metre Freestyle		
1980	Barbara Krause	G.D.R.	0.54.79
	200-Metre Freestyle		
1980	Barbara Krause	G.D.R.	1.58.33
	400-Metre Freestyle		
1980	Ines Diers	G.D.R.	4,08,76
	800-Metre Freestyle		
1980	Michelle Ford	Aus.	8.28.90
	4×100-Metre Freestyle		
1980	Barbara Krause Caren Metschuch Ines Diers Sarina Hulsenbeck	G.D.R.	3.42.71
	100-Metre Breaststroke		
1980	Ute Geweniger	G.D.R.	1.10.22
	200-Metre Breaststroke		
1980	Lina Kachushite	U.S.S.R.	2.29.54
	100-Metre Butterfly		
1980	Caren Metschuck	G.D.R.	1.00.42
	200-Metre Butterfly		
1980	Ines Geissler	G.D.R.	2.10.44
	100-Metre Backstroke		
1980	Rica Reinisch	G.D.R.	1.00.86
	200-Metre Backstroke		
1980	Rica Reinisch	G.D.R.	2.11.77
	400-Metre Individual Medley		
1980	Petra Schneider	G.D.R.	4.36.29
	4×100-Metre Medley Relay		
1980	Rica Reinisch Ute Geweniger Andrea Pollack Caren Metschuck	G.D.R.	1,01,51

DIVING

Men's

Year	*Winner*	*Country*	*Points*
	Springboard		
1980	Aleksandr Pertna	U.S.S.R.	905.025
	Platform		
1980	Falk Hoffmann	G.D.R.	835.650
	Women's Springboard		
1980	Irina Kalinina	U.S.S.R.	725.910
	Platform		
1980	Martina Jaschke	G.D.R.	596.250

Discus Throw

Year	*Winner*	*Country*	*Length*
1928	Helena Konopacka	Poland	129′ 11⅞″
1932	Lillian Copland	U.S.A.	133′ 2″
1936	Gisela Mauermayer	Germany	156′ 3³⁄₁₆″
	Discus Throw (Contd.)		
1948	Micheline Ostermayer	France	137′ 6½″
1952	Nina Romaschkova	U.S.S.R.	168′ 8½″
1956	Olga Fikotova	Czechoslovakia	165′ 7″
1960	Nina Ponomareva	U.S.S.R.	180′ 8¼″
1964	Tamara Press	,,	187′ 10¾″
1968	Manoliu	Rumania	191′ 2½″
1972	Faina Melnik	U.S.S.R.	218′ 7″
1976	Evelin Schlaak	G.D.R.	226′ 4½″
1980	Evelin Jahl	,,	69.96 mtrs.
	Javelin Throw		
1932	Mildred Didrikson	U.S.A	143′ 4″
1936	Tilly Fleischer	Germany	148′ 2¾″
1948	Herma Bauma	Austria	149′ 6″
1952	Dana Zatopekova	Czechoslovakia	165′ 7″
1956	Inessa Janzeme	U.S.S.R.	176′ 8″
1960	Elvira Ozolina	,,	183′ 8″
1964	Mihaela Penes	Rumania	198′ 7½″
1968	Nemeth	Hungary	198′ ½″
1972	Ruth Fuchs	G.D.R.	209′ 7″
1976	Ruth Fuchs	,,	216′ 4″
1980	Maria Colon	Cuba	68.40 mtrs.
	Pentathlon		
1976	Sigrun Siegl	G.D.R.	4,745 pts.
1980	Nadezhda Tkachenko	U:S.S.R.	5,038 pts.
	Shot-Put		
1948	Micheline Ostermayer	France	45′ 1½″
1952	Galina Zybina	U.S.S.R.	50′ 1½″
1956	Tamara Tishkyeovich	,,	54′ 5″
1960	Tamara Press	,,	56′ 9⅞″
1964	Tamara Press	,,	59′ 6¼″
1968	Gummel	E. Germany	64′ 4″
1972	Nadezhda Chizhova	U.S.S.R.	69′ 0″
1976	Ivanka Khristova	Bulgaria	69′ 5″
1980	**Ilona slupianck**	G.D.R.	22.41 mtrs.
	Long Jump		
1948	Olga Gyarmati	Hungary	18′ 8¼″
1952	Yvette Williams	New Zealand	20′ 5¾″
1956	Elizbeita Krezeskinska	Poland	20′ 9¾″
1960	Vera Krepkina	U.S.S.R.	2′ 10¾″
1964	Mary Rand	G.B.	22′ 2½″
1968	Niscopoleanu	Rumania	22′ 4½″
1972	Heide Rosendahl	W. Germany	22′ 3″
1976	Angela Voigt	G.D.R.	22′ 2½″
1980	Tatyana Kolpakova	U.S.S.R.	7.06 mtrs.

YACHTING (1980)

Soling Class (Den.): Paul Jensen, Valdeman Bandolowski, Erik Hansen: **Star Class** (USSR): Velentin Mankin, Alexandr Muzymchenko; **Flying Dutchman Class** (Spain): Alejandro Abascal, Miguel Noguer; **470 Class** (Braz): Marcas Soares, Eduardo Penido; **Finn Class** (Fin.): Esko Rechardt; **Tornado Class** (Braz.): Alexandre Welter, Lars Bjorkstorm.

JUDO (1980)

Winners:

Open Category (No Weight limit): Dietmar Loreng (G.D.R.); *Heavyweight* (Over 95 kg.): Angelo Parisi (France); *Light Heavyweight* (upto 95 kg.); Robert Van der Walle (Bel.); *Light Middleweight* (upto ·78 kg.): Shota Khambarelin (U.S.S.R.); *Lightweight* (upto 71 kg.): Ezio Gamba (Ita.); *Featherweight* (upto 65 kg.): Nikolai Solodukhin (USSR) *Bottomweight*)upto 60 kg.): Thierry Rey (France).

MODERN PENTATHLON (1980)

Individual: Anatoly Starostin (USSR): **Team:** Anatoly Starostin, Pavel Lednev, Evgeny Lipeev (USSR).

GYMNASTICS (1980)

Men

Winners: **Team Competition:** (USSR) 589.6; **Combined Exercises** (Individual): Alexandr Dityatin (USSR) 118.65; **Floor Competition;** Roland Bruckner (GDR) 19.75; **Side Horse:** Zoltan Magyar (Hun.) 19.925; **Rings:** Alexandr Dityatin (USSR) 19.875; **Horse Vault:** Nikolai Andrianov (USSR) 19.825; **Parallel Bars:** Alexandr Tkachyov (USSR) 19.775; **Horizontal Bars:** Stoyan Deltchev (Bul.) 19.825.

Women

Team Competition: (USSR) 394.9; **Combined Exercises** (Individual): Yelena Davydova (USSR) 79.15; **Horse Vault:** Nataliya Shaposhnikova (USSR): 19.725; **Asymmetrical Bars:** Maxi Gauck (GDR) 19.875; **Balance Beam:** Nadia Comaneci (Rum.) 19.8; **Floor Exercises:** Nadia Comaneci (Rum.) 19.875; Nelli Kim (USSR) 19.875.

WRESTLING (1980)

FREESTYLE: Lightweight (upto 48 Kg.): Clandio Pollio (Ita.); **Flyweight** (upto 52 Kg.): Anatoly Beloglazon (USSR); **Bantamweight** (upto 57 Kg.): Sergei Beloglazov (USSR); **Featherweight** (upto 62 Kg.): Magomidgasan Abushev (USSR); **Lightweight** (upto 68 Kg.): Saipula Absaidovan (USSR); **Welterweight** (upto 74 Kg.): Valentin Raitchev (Bul.); **Middleweight** (upto 82 kg.): Ismail Abilov (Bul.); **Light Heavyweight** (upto 90 Kg.): Senasar Oganesyan (USSR); **Heavyweight** (upto 100 Kg.): Ilya Mate (USSR); **Super Heavyweight** (100 Kg.): Soslan Andiev (USSR).

Greco-Roman Style:

Light Flyweight (upto 48 kg.): Zaksylik Ushkemparov (USSR); **Flyweight** (upto 52 kg.): Vakhtang Blagidze (USSR); **Bantamweight** (upto 57 kg.): Shamll Serikov (USSR); **Featherweight** (upto 62 kg.): Stilianos Migiakis (Gre.); **Lightweight** (upto 68 kg.): Stefan Rusu (Rom.); **Welterweight** (upto 74 kg.): Ferenc Kocois (Hun.); **Middleweight** (upto 82 kg.): Gennady Korban (USSR); **Light Heavyweight** (upto 90 kg.): Nobort Nottny (Hun.); **Heavyweight** (upto 100 kg.): Ghearghi Raikov (Bul.); **Super Heavyweight** (over 100 kg.): Alexandr Koichimsky (USSR).

WEIGHTLIFTING (1980)

Winner and weight (kg.) respectively:

Flyweight (upto 52 kg.): Kanybekosmonaliev (USSR) 245; **Bantamweight** (upto 56 kg.): Daniel Nunez (Cuba) 275; **Featherweight** (upto 60 kg.): Viktor Mazin (USSR) 290; **Lightweight** (upto 67.5 kg.): Yankov Ronssev (Bul.) 342.5; **Middleweight** (upto 75 kg.): Assen Zlatev (Bul.) 360; **Light Heavyweight** (upto 82.5 kg.); Yurik Vardhanyan (USSR) 400; **Middle Heavyweight** (upto 90 kg.): Peer Baczako (Hun.) 377.5; (upto 90 kg.): Ota Zaremba (Czech.) 395; **Heavyweight** (upto 110 kg.): Leonid Teranonko (USSR) 422.5; **Super Heavyweight** (over 110 kg.): Sultan Rakhmanov (USSR) 440.

HANDBALL (1980)

Winner: Men (GDR); Women (USSR).

BASKETBALL (1980)

Winner: Men; (Yug) Women (USSR).

SHOOTING (1980)

Winner (Country) and points scored respectively.

Rapid Fire Pistol: Jurgen Wiefel (GDR), 299; **Small-bore Rifle:** Viktor Vlasov (USSR), 1,173; **Trap:** Luciano Giovannelli (Italy), 198.2; **Skeet:** Hans Kjeld Rasmussen (Denmark), 196; **Running Boar Target:** Igor Sokolov (USSR), (Normal run: 298; Fast Run: 297), 589.

VOLLEYBALL (1980)

Men's: USSR; Women's: Bulgaria.

BOXING (1980)

Winners: Light Flyweight: (upto 48 kg.): Shamil Sabirov (USSR); **Flyweight** (upto 51 kg.): Petar Lessov (Bul.); **Bantamweight** (upto 54 kg.): Juan Hernandez (Cuba); **Featherweight** (upto 57 kg.): Rudi Fink (G.D.R.); **Lightweight** (upto 60 kg.): Angel Herreara (Cuba); **Liht Welterweight** (upto 63.5 kg.): Patrizio Oliva (Ita.); **Welterweight** (upto 67 kg.): Andres Aldama (Cuba); **Light Middleweight** (upto 71 kg.): Armando Martineg (Cuba); **Middleweight** (upto 75 kg.): Jose Gomez (Cuba); **Light Heavyweight** (upto 81 kg.); Slobodar Kacar (Yug.); **Heavyweight** (over 81 kg.): Teofilio Stevenson (Cuba).

CYCLING (1980)

1,000-metre Sprint: Lutz Hosslich (GDR); **1,000-Metre Time Trial:** Lothar Thoms (GDR) 1:0295; **4,000-Metre Individual Pursuit:** Robert Dill-Bundi (Swit.) 4:35.66; **4,000-Metre Team Pursuit** (USSR) 4:15.7; **Individual Road Race:** Sergei Sukhoruchenkov (USSR) 4h. 48:28.9; **Road Team Trial** (USSR) 2h. 01:27.7; **Individual Road Race:** Sagei Sukhrechenav (USSR).

EQUESTRIAN SPORTS (1980)

Grand Prix (Jumping): Jan Kowalozk (Pol.); **Grand Prix** (Dressage): Elisabeth Thewer (Aus.).

FENCING (1980)

Men

Foil: Vladimir Smimov (USSR); **Epee:** Johan Harmenberg (Swe.); **Sabre:** Viktor Krovopuskov (USSR).

Women

Foil: Pascale Trinquest (Fra.).

ROWING (1980)

Winner and country respectively:

Men

Single Sculls: Pertti Karppinen (Fin.); **Double Sculls:** Joachim Dreifke, Klaus Krepplien (GDR); **Coxless Quadruple Sculls:** Frank Dundr, Karsten Bunk, Uwe Heppner, Martinwinter (GDR); **Coxedless Pairs:** Bernd Landvoigt, Jorg Landvigt (G.D.R.); **Coxed Pairs:** Harald Jahrling, Friedrich Ulrich (GDR); **Coxless Fours:** Siegfried Brietzke, Jurgin Thiele, Andreas Decker, Stefan Semmler (GDR); **Coxed Fours:** Diter Wendisch, Ulrich Diessner, Walter Diessner, Gottifried Dohn (GDR); **Eights:** Bernd Krauss, Hans-Peter Koppe, Ulrich Kons, Jorg Friedrich, Jens Doberschutz, Ulrich Karnets, Uwe Duhrmg, Bernd Hoing (GDR).

Women

Single Sculls: Sanda Toma (Rum.); **Double Sculls:** Yelen Khlopeeva, Lurissa Poppova (USSR); **Coxless Pairs:** Ute Steindorf, Cornelia Klier (GDR); **Coxed Quadruple Sculls:** Jutta Ploch, Jutta Lal, Sybille Reinhardt, Roswitha Zobelt (GDR); **Coxed Fours:** Remona Kapheim, Silvia Frohlich, Angelika Noack, Remy Salfeld, Kirsten (GDR); **Eights:** Martina Boesler, Kersten Neisser, Christiane Kopke, Bright Schultz, Gabrille Kuhn, Ilona Richter, Marita Sandig, Karin Metze.

CANOEING (1980)

Winner and country respectively:

Men

Kayak Singles—500 Metres: Vladimir Parfenovich (USSR) 1:43.42; **Kayak Singles**—1,000 Metres: Rudigor Holm (GDR) 3:48.77; **Kayak Pairs**—500 Metres: (USSR) 1:32.38; **Kayak Pairs**—1,000 Metres (USSR) 3:26.72; **Kayak Fours**—1,000 Metres (GDR); **Canadian Singls**—500 Metres: Sergei Postrekhin (USSR) 1:53.37; **Canadian Singles**—1,000 Metres: Lubomir Lubenov (Bul.) 4:12.38; **Canadian Pairs**—500 Metres: (Hungary) 1:43.3; **Canadian Pairs**—1,000 Metres (Rum.).

Women

Kayak Singles—500 Metres: Birgit Fischer (GDR) 1:57.96; **Kayak Pairs**—500 Metres: (GDR) 1:43.88.

ARCHERY (1980)

Men: Double FITA Round: Tomi Poikolainen (Fin.).

Women: Double FITA Round: Keto Losaberidze (USSR).

OLYMPIC FOOTBALL

Year and winner respectively: 1912 Great Britain; 1920 Belgium; 1924 Uruguay; 1928 Uruguay; 1936 Italy; 1948 Sweden; 1952 Hungary; 1956 Soviet Union; 1960 Yugoslavia; 1964 Hungary; 1968 Hungary; 1972 Poland; 1976 G.D.R.; 1980 Czechoslovakia.

OLYMPIC HOCKEY

Year and winner respectively: 1908 Great Britain; 1920 Great Britain; 1928 India; 1932 India; 1936 India; 1948 India; 1952 India; 1956 India; 1960 Pakistan; 1964 India; 1968 Pakistan; 1972 W. Germany; 1976 New Zealand; 1980 India.

WORLD CUP SOCCER

The Jules Rimett Cup: 1930 Uruguay; 1934 Italy; 1938 Italy; 1950 Uruguay; 1954 W. Germany; 1958 Brazil; 1962 Brazil; 1966 England; 1970 Brazil; 1974 West Germany; 1978 Argentina; 1982 Italy.

NATIONAL FOOTBALL

Santosh Trophy: Year and winner respectively: 1953 Bengal; 1954 Bombay; 1955 Bengal; 1956 Hyderabad; 1957 Hyderabad; 1958 Bengal; 1959 Bengal; 1960 Services; 1961 Railways; 1962 Bengal; 1963 Maharashtra; 1964 Bengal; 1965 (not played); 1966 Andhra Pradesh; 1967 Mysore; 1968 Mysore; 1969 Bengal; 1970 Punjab; 1971 Bengal; 1972 Bengal; 1973 Kerala; 1974 Punjab; 1975 Bengal; 1976 Bengal; 1977 Bengal; 1978 Bengal; 1979 Bengal; 1980 Bengal; 1981 Punjab; 1982 Bengal; 1983 Goa-Bengal (jointly); 1984 Goa.

Rovers Cup: Year and winner respectively: 1953 Hyderabad Police; 1954 Hyderabad Police; 1955 Mohun Bagan; 1956 Mohamedan Sporting; 1957 Hyderabad Police; 1958 Caltex; 1959 Mohamedan Sporting; 1960 Andhra Pradesh Police; 1961 E.M.E., Secunderabad; 1962 East Bengal-Andhra Pradesh Police; 1963 Andhra Pradesh Police; 1964 Bengal Nagpur Railway; 1965 (not held); 1966 Mohun Bagan; 1967 East Bengal; 1968 Mohun Bagan; 1969 East Bengal; 1970 Mohun Bagan; 1972 East Bengal and Mohun Bagan; 1973 East Bengal; 1974 Dempo S.C.; 1975 East Bengal Club; 1976 Mohun Bagan; 1977 Mohun Bagan; 1978 Dempo S.C.; 1979 Dempo S.C.; 1980 East Bengal and Mohamedan Sporting (Jointly); 1981 Mohun Bagan; 1982 Salahuddin Club (Iraq); 1983 Army Club (Iraq).

I.F.A. Shield: Year and winner respectively: 1954 Mohun Baagan; 1955 Rajasthan S.C.; 1956 (not held); 1957 Mohamedan Sporting; 1958 East Bengal; 1959 Abandoned; 1960 Mohun Bagan; 1961 Mohun Bagan; 1962 Mohun Bagan; 1963 Bengal Nagpur Railway; 1964 East Bengal; 1965 (not held); 1966 Mohun Bagan; 1967 East Bengal-Mohun Bagan; 1968 Mohun Bagan-Mohamedan Sporting; 1969 (not held); 1970 East Bengal; 1971-72 (not held); 1973 East Bengal; 1974 East Bengal; 1975 East Bengal Club; 1976 Mohun Bagan & East Bengal; 1977 Mohun Bagan; 1978 Mohun Bagan; 1979 Mohun Bagan; 1981 shared by Mohun Bagan and East Bengal; 1982 Mohun Bagan.

Durand Cup: Year and winner respectively: 1935 Mohun Bagan; 1954 Hyderabad Police; 1955 Madras Regimental Centre; 1956 East Bengal; 1957 (not held); 1958 (not held); 1959 Mohun Bagan; 1960 East Bengal; 1961 Andhra Pradesh Police; 1962 (not held); 1963 Mohun Bagan; 1964 Mohun Bagan; 1965 (not held); 1966 Gorkha Brigade; 1967 East Bengal; 1968 Border Security Force; 1969 Gorkha Brigade; 1970 East Bengal; 1971 (not played); 1972 East Bengal; 1973 Border Security Force; 1974 Mohun Bagan; 1975 J.C.T. Mills (Phugwara); 1976 J.C.T. Mills (Phugwara) & B.S.F. (Jullundur); 1977 Mohun Bagan; 1978 East Bengal; 1979 Mohun Bagan; 1980 Mohun Bagan; 1981 B.S.F.

TENNIS

Davis Cup: Year and winner respectively: 1900 U.S.; 1902 U.S.; 1903 British Isles.; 1904 British Isles.; 1905 British Isles.; 1906 British Isles.; 1907 to 1909 Australia; 1911 Australia; 1912 British Isles.; 1913 U.S.; 1914 Australia; 1919 Australia; 1920 to 1926 U.S.; 1927 to 1932 France; 1933 to 1936 G.B., 1937-38 U.S.; 1939 Australia; 1946 to 1949 U.S.; 1950 to 1953 Australia; 1954 U.S.; 1955-1957 Australia; 1958 U.S.; 1959 to 1962 Australia; 1963 U.S.; 1964 to 1967 Australia; 1968 to 1972 U.S.; 1973 australia; 1974 South Africa (by default); 1975 Czechoslovakia; 1976 Sweden; 1977 Australia; 1978 United States; 1979 United States; 1980 United States; 1981 United States.

OLYMPIC HOCKEY

Year and winner respectively: 1908 Great Britain; 1920 Great Britain; 1928 India; 1932 India; 1936 India; 1948 India 1952 India; 1956 India; 1960 Pakistan; 1964 India; 1968 Pakistan; 1&72 W. Germany; 1976 New Zealand; 1980 India.

NATIONAL HOCKEY

Rangaswamy Cup: Year and winner respectively—1953 Services; 1954 Madras-Services; 1955 Services; 1956 Railways; 1957 Railways; 1958 Railways; 1959 Services; 1960 Services; 1961 Railways; 1962 Railways; 1963 Railways; 1964 Punjab; 1965 (not held); 1966 Railways-Madras; 1967 Railways; 1968 Punjab; 1969 Punjab-Railways; 1970 Punjab; 1971 Punjab; 1972 Punjab; 1973 Services; 1974 Railways; 1975 Railways; 1976 Railways; 1977 Railways and Indian Airlines (Jointly); 1978 Indian Airlines; 1979 Railways; 1981 Punjab; 1982 Bombay-Punjab (Jointly).

Aga Khan Cup: Year and winner respectively; 1953 Lusitanian S.C.; 1954 Punjab; 1955 Bombay City Police; 1956 (not held); 1957 Burmah-Shell; 1958 Northern Railway; 1959 Punjab Police; 1960 I.H.F. President's XI; 1961 Maratha L.I.; 1962 North Eastern Railway; 1963 Mohun Bagan; 1964 Punjab Police; 1965 (not held); 1966 Punjab Police; 1967 Western Railway; 1968 Punjab Police; 1969 (not played); 1970 (not played); 1971 Indian Airlines; 1972-74 (not played); 1975 Northern Railway; 1976 Eastern Railway; 1977 Tournament Abandoned; 1978 (not held); 1980 Northern Railway; 1981 not played; 1982 Mahindra and Mahindra; 1983 Pakistan International Airlines.

Beighton Cup: Year and winner respectively: 1953 Tata S.C.; 1954 Western Railway-Uttar Pradesh; 1955 Services; 1956 East Bengal; 1957 Mohun Began; 1958 Corps of Signals; 1959 Mohun Bagan; 1960 Central Railway; 1961 Central Railway; 1962 Central Railway; 1963 Mohun Bagan; 1964 Mohun Bagan-Customs A.C. (Jt. holders); 1965 (not held); 1966 East Bengal; 1967 Mohun Bagan; 1968 (not held); 1969 Western Railway; 1970 Western Railway; 1971 Mohun Bagan and B.S.F. (Jt. holders); 1972 (not held); 1973 Mohun Bagan and Indian Hockey Federation Dark Blues (Jt. holders); 1974 Mohun Bagan; 1975 Mohun Bagan; 1976 Army Supply Corps (Jullundur); 1977 Mohun Bagan; 1978 Mohun Bagan; 1979 Mohun Bagan; 1980 Western Railwav; 1981 E.M.E.; 1982 E.M.E.

CRICKET

TEST MATCHES:

England: 1932 (In England) India lost the only match played by 158 Runs; 1933-34 (in India) India lost 2 and drew 1; 1936 (in England) India lost 2 and drew 1; 1946 (in Engalnd) India lost 1 and drew 2; 1951-52 (in India) India won 1, lost 1 and drew 3; 1952 (in England) India lost 3 and drew 1; 1959 (in England) India lost 5; 1962 (in India) India won 2 and drew 3; 1964 (in India) All 5 Tests drawn; 1967 (in England) India lost all 3 tests; No matches were held during 1968 to 1970; 1971 (in England) India won one and drew two; 1972 (in India) India won two, lost one, and drew two; 1974 (in England) India lost all 3 tests; 1976-77 (in India) India won 1, lost 3 and drew 1; 1979 (in England) India lost 1 and drew 3; 1980 (in India) India lost the Golden Jubilee Test; 1981-82 (in India) India won 1 and drew 5; (in England) India lost 1 and drew 2.

Australia: 1947 (in Australia) India lost 4 and drew 1; 1956 (in India) India lost 2 and drew 1; 1959-60 (in India) India won 1, lost 2 and drew 2; 1964 (in India) India won 1, lost 1 and drew 1; 1967-68 (in Australia) India lost all 4; 1969-70 (in India) India won 1, lost 3 and drew 1; 1977-78 (in Australia) India won 2, lost 3; 1979 (in India) India won 2, drew 4; 1980-81 (in Australia) India lost 1, won 1 and drew 1.

West Indies: 1948 (in India) India lost 1 and drew 4; 1953 (in West Indies) India lost 1 and drew 4; 1958 (in India) India lost 2 and drew 3; 1962 (in West Indies) India lost all 5; 1966-67 (in India) India lost 2 and drew 1; 1971 (in West Indies) played 5 test matches (India won 1, drew 4) India got rubber; 1974-75 (in India) played 5 tests (India won 2 and lost 3); 1976 (in West Indies) India lost two, won one and drew one; 1978-79 (in India) played 6. (India won one and drew 5); 1983 (In West Indies) India lost 2, drew 3.

Pakistan: 1952 (In India) India won 2, lost 1 and drew 3; 1954 (in Pakistan) all 5 Tests drawn; 1960-61 (in India) all 5 Tests drawn; 1978 (in Pakistan) India lost 2 and drew 1; 1979-80 (in India) India won 2 and drew 4; 1982-83 (in Pakistan) India lost 3, drew 3.

New Zealand: 1955-56 (in India) India won 2 and drew 3; 1965 (in India) India won 1 and drew 3; 1968 (in New Zealand) India won 3 and lost 1; 1969 (in India) India won 1, lost 1 and drew 2; 1970 (in India) India won 1, lost 1 and drew 1; 1976 (in New Zealand) India won 1, lost 1 and drew 1; 1981 (in New Zealand) India lost 1 and drew 2.

PRUDENTIAL WORLD CUP

1975	West Indies,
1979	West Indies.
1983	India

BILLIARDS

1977—World Amateur Champion: Michael Ferreira (India); 1979—Paul Misfield (Malta); 1981—Michael Ferreira (India); 1982—Michael Ferreira (India); 1983—Michael Ferreira (India).

RANJI TROPHY

Championship 1934-1982

Year	*Winner*	*Runner-up*
1934	Bombay	Northern India
1935-36	Bombay	Madras
1936-37	Nawanagar	Bengal
1937-38	Hyderabad	Nawanagar
1938-39	Bengal	Southern Punjab
1939-40	Maharashtra	United Provinces
1940-41	Maharashtra	Madras
1941-42	Bombay	Mysore
1942-43	Baroda	Hyderabad
1943-44	Western India	Bengal
1944-45	Bombay	Holkar
1945-46	Holkar	Baroda
1946-47	Baroda	Holkar
1947-48	Holkar	Bombay
1948-49	Bombay	Baroda
1949-50	Baroda	Holkar
1950-51	Holkar	Gujarat
1951-52	Bombay	Holkar
1952-53	Holkar	Bengal
1953-54	Bombay	Holkar
1954-55	Madras	Holkar
1955-56	Bombay	Bengal
1956-57	Bombay	Services
1957-58	Baroda	Services
1958-59	Bombay	Bengal
1959-60	Bombay	Mysore
1960-61	Bombay	Rajasthan
1961-62	Bombay	Rajasthan
1962-63	Bombay	Rajasthan

RANJI TROPHY

Championship 1934-1982—(Contd.)

Year	*Winner*	*Runner-up*
1963-64	Bombay	Rajasthan
1964-65	Bombay	Hyderabad
1965-66	Bombay	Rajasthan
1966-67	Bombay	Rajasthan
1967-68	Bombay	Madras
1968-69	Bombay	Bengal
1969-70	Bombay	Rajasthan
1970-71	Bombay	Maharashtra
1971-72	Bombay	Bengal
1972-73	Bombay	Tamil Nadu
1973-74	Karnataka	Rajasthan
1974-75	Bombay	Karnataka
1975-76	Bombay	Bihar
1976-77	Bombay	Delhi
1977-78	Karnataka	U.P.
1978-79	Delhi	Karnataka
1979-80	Delhi	Bombay
1980-81	Bombay	Delhi
1981-82	Delhi	Karnataka
1982-83	Karnataka	Bombay

DULEEP TROPHY

Year	*Winner*	*Runner-up*
1961-62	West Zone	South Zone
1962-63	West Zone	South Zone
1963-64	West Zone South Zone	
1964-65	West Zone	Central Zone
1965-66	South Zone	Central Zone
1966-67	South Zone	West Zone
1967-68	South Zone	West Zone
1968-69	West Zone	South Zone
1969-70	West Zone	North Zone
1970-71	South Zone	East Zone
1971-72	Central Zone	West Zone
1972-73	West Zone	Central Zone
1973-74	North Zone	Central Zone
1974-75	South Zone	West Zone
1975-76	South Zone	North Zone
1976-77	West Zone	North Zone
1977-78	West Zone	North Zone
1978-79	North Zone	West Zone
1979-80	North Zone	West Zone
1980-81	Not played*	
1981-82	North Zone	West Zone
1982-83	North Zone	West Zone

*As on March 2, 1981.

HIMALAYAN CAR RALLY (1982)

Winners: First Prize—**Air-India Trophy** and a cash award of Rs. 30,000—Jayant Shah (a Kenyan businessman) and his driving partner Aslam Khan; Second Prize—**Modi Rubber Trophy** and a cash award of Rs. 15,000—Rudolf Stohl (Austrian); Third Prize—A trophy and a cash prize of Rs. 10,000—Ramesh Khoda (Kenyan businessman).

See Chapter on State Associations for State-wise list of Sports Associations.

MOUNTAINEERING

THREE flags of three nations, Indian, British and New Zealand, fluttered proudly on the summit of Mt. Everest on May 29, 1953, announcing to the world that the highest peak had been, at last, conquered. For three mountaineers, Edmund Hillary, Tensing Norgay, the sherpa, and the leader of the expedition, Col. John Hunt, it was indeed a deed of great achievement which evoked admiration and applause the world over.

This great event prompted the Government of India to set up the Indian Mountaineering Foundation in Delhi and the Himalayan Mountaineering Institute at Darjeeling. Interestingly, August 27, 1983, marked the silver jubilee of the Indian Mountaineering Foundation, a milestone in the rapid strides of mountaineering in India. An offshoot of this is the establishment of several mountaineering institutes in India.

Historically, mountaineering, which has been described as the practice of climbing to elevated points for sports, pleasure or research, took the first leap forward in a significant achievement in the ascents of Mount Blanc in 1786 by Jacques Balmat and Michel G. Paccard and in 1787 by Horace B. de Saussure.

Mountaineering as a sport, however, started with the ascent of Wetterhorn (in Colorado) in 1854. But this feat was surpassed in popularity by the success of Edmund Whymper on the Matterhorn in 1865. The sport rapidly attracted admirers and the Alpine Club of London was set up in 1858 and published its own magazine, "Alpine Journal", in 1867.

Two other notable feats in mountaineering were the conquest in 1961 of the South face of Mt. McKinley in Alaska and Chincy (1961) of Northwall of Eiger in the Alps.

The towering giants for mountaineers are: Mt. Everest, Mt. Godwin-Austen and Mt. Kanchenjunga, all conquered in the 1950s.

The fascinating Himalayas have always posed an irresistible challenge to man inviting him to unravel its mysteries by scaling the virgin peaks. The earliest survey of the contours of the Himalayas is recorded in a book entitled "Kedarkhand" written by Veda Vyas, the mythological surveyor. Most of the peaks derive their names also from this exploratory document.

Though by 1850 most of the lesser known peaks and their heights were established trigonometrically, the world's highest peak was fixed only in 1852 by a team of surveyors who named it Mt. Everest, after Sir George Everest, the Surveyor-General of India. It was a feat in an era when very little was known about air pressure, lack of oxygen and living conditions on such heights. The first organised mountaineering was in 1852 when W. H. Graham climbed the 24,000ft. Kabru peak, near Kanchenjunga.

Modern mountaineering in India can be said to have started from 1918, when two Englishmen climbed the 19,000ft. peak near Leo Pargyal in Simla. Gradually local sherpas were inducted into expeditions and air reconnaissance was also introduced in 1933 whereby the first aerial view of Mt. Everest was established.

With the conquest of Mt. Everest on May 29, 1953 by Sir Edmund Hillary and Tensing Norgay a new era opened up and mountaineering as a sport came to be widely and internationally recognised.

The three most historic events in mountaineering history are the assault on Annapurna by Mauric Herzog of France in 1950, the conquest of Mt. Everest by Edmund Hillary and Tensing Norgay in 1953 and the Japanese all-women expedition to Mt. Everest in 1975 under the leadership of Mrs. Junko Tabei.

The first all-Indian expedition was launched on Mt. Everest in the summer of 1960 under Brig. Gyan Singh which unfortunately missed the peak. In 1962 a second party under Maj. John Dias was

SUCCESSFUL EXPEDITIONS TO MT. EVEREST

Year	Sponsored Country	Group Leaders
May 1953	Great Britain	Edmund Hillary and Tensing Norgay (1)
May 1963	United States of America	Norman G. Dyhrenfurth
May 1963	United States of America	W.F. Unsoeld and T.F. Hornbein
May 1965	India	M.S. Kohli
May 1970	Japan	Torno Matsunra and Naomi Uermera
May 1973	Italy	Guido Monzino
May 1975	Japan (All women)	Mrs. Junko Tabei (2)
May 1975	China with Tibet	Miss Panthong (3)
Sept 1975	Great Britain	Chris Bonington (4)
Sept 1976	Great Britain (Canoeing)	Mike Jones
Oct. 1976	United States of America (Bicentennial Everest)	Phil Trimble
Sept. 1977	Korea	Ko Sang Don
May 1978	United States of America	Reinhold Messner and Peter Hebeller (5)
May 1978	Germany with Austria	Reinhard Karl (6)
Oct. 1978	France with Germany	Pierre Mazeand
Mar. 1979	Yugoslavia	Tone Sakarja
May 1979	Yugoslavia	Jernez Zaplotnik
Oct. 1979	W Germany	Dr. Gerhard Schmatz
Feb. 1980	Poland	Andrea Zawada
May 1980	Poland	N.A.
Oct. 1981	United States of America (Medical)	Dr. John West
May 1982	United Soviet Socialist Republic (By mountaineering team)	Dr. Evgeny Tamm
Oct. 1982	Canada	Laurie Skreslet
May 1983	United States of America	Larry Nielson (7)

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(1) Under the leadership of John Hunt. (2) First woman to reach summit. (3) Second woman to reach summit. (4) Reached summit through South West face. (5) Climbed without oxygen. (6) First German to reach summit. (7) Climbed without oxygen.

EXPEDITIONS BY WOMEN

Year	Sponsored by	Group Leader	Peak
June 1964	Four Women Indian Expedition of Manali Mountaineering Instt.	Miss Snehalata Pilke	Mt. Deo Tibba
Oct. 1964	Expedition by Girl Guides	Miss Joyce Dunsheath	Mrigthuni
April 1966	All-women Himalayan Expedition	Miss Pushpa Athavle	Mt. Koktang
June 1966	Gujarat University Girls' Expedition	Miss Nandini Patel	Gangotri I
June 1967	Pune Girls' Expedition	Dr. G.R. Patwardhan	Jogin III
Oct. 1967	All-women Expedition	Miss Deepali Sinha	Ronti
May 1968	Indo-Japanese Women Expedition sponsored by Indian Mountaineering Foundation	Nandini Patel	Mt. Kailash
June 1969	Gujarat Girls' Expedition	Miss Dolly Sahar	Hanuman Tibba
June 1970	Bombay All-women Expedition	Miss Meena Agrawal	Trisul
Oct. 1970	All-women Delhi Mountaineering Association	Miss M.C. Usha	Hanuman Tibba
June 1974	Maharashtra Trekkers and Cultural Society Women Expedition	Miss Lalita Patil	Hanuman Tibba
May 1975	Japanese All-women	Mrs. Junko Tabei	Mt. Everest
May 1975	Chinese-Tibetan	Miss Panthong	Mt. Everest
June 1975	Two-women Expedition sponsored by Delhi Mountaineering Association	Miss Usha Chari	Mukerbeh
June 1975	Youth Hostel Association of India	Miss Nalini V. Dave	Ranikoot
Oct. 1975	Calcutta All-women Mountaineering Team	Miss Chandraprabha	Kedarnath Dome
Oct. 1975	Maharashtra Mountaineering and Trekking Club	Miss Lalita Patil	Deo Tibba
June 1976	Indo-Japanese Girls'	Dr. Meera Agrawal	Abi Gamin
Oct. 1978	Western Himalayan Women	Raman Sen Gupta	White Sail
Oct. 1978	American Women's Expedition	Irene Miller	Annapurna
June 1981	Maharashtra N.C.C. Girl Cadets	N.A.	Friendship
Sept. 1981	Six men and six women	Col. B.S. Sandhu	Nanda Devi
May 1982	Korean Expedition	Miss Hyoung Heekay	Mt. Lamjung Himal
May 1983	Japanese Women Mountaineering Expedition	Fumie Shimamura	Mt. Takuche

sent. That also was a failure. In 1965 an Indian expedition led by Com. M. S. Kohli succeeded in reaching the summit with nine members.

English and German poets have waxed eloquent over the glory of the Alps and John Ruskin and Joseph Turner gave them prominence as subjects for painters. There has been a rich and extensive literature on mountaineering, partly because the sport has attracted persons of cultured accomplishments.

MOUNTAINEERING BY WOMEN

The all-women expedition led by Madame Claude Kogan of France to conquer Cho Oyu peak in the Himalayas in 1959 is considered to be the starting point of mountaineering by women. In India, the Himalayan Mountaineering Institute of Darjeeling was the pioneer in starting an all-women mountaineering course. It was in 1961 that a team of 24 girls was selected for this course by Brig. Gyan Singh who was then the principal of the institute. Later, other institutes also started a similar course.

The systematic training given by the institutes and the encouragement by various state governments namely, Gujarat, Maharashtra, Uttar Pradesh, Rajasthan, Himachal Pradesh, West Bengal, etc. resulted in giving a moral boost to the mountaineering adventure among youth and consequently women came to the forefront. The various peaks scaled by women mountaineers from 1964 onwards testify to the adventurous spirit among women.

At present plans are afoot by the Indian Mountaineering Foundation, Delhi, and the Himalayan Mountaineering Institute, Darjeeling, to organise an all-women expedition to conquer Mt. Everest.

TRAINING INSTITUTES

There are six major institutes in India. They are: (1) Indian Mountaineering Foundation, Delhi; (2) Himalayan Mountaineering Institute, Darjeeling; (3) Nehru Institute of Mountaineering, Uttarkashi, Uttar Pradesh; (4) Madhya Pradesh Mountaineering Institute; (5) Western Himalayan Mountaineering Institute, Manali, Kulu; and (6) Manali Institute of Mountaineering, Gangtok.

COMMUNICATIONS

THE telephonic conversation which the Prime Minister of India Mrs. Indira Gandhi, had with the British Prime Minister, Mrs. Margaret Thatcher, on May 3, 1983, was a milestone which marked 50 years of India's telephonic link with Great Britain. It was on that day 50 years ago that the then Secretary of State of India, Sir Samuel Hoare, had made the call from London to Sir Frederick Sykes, Governor of Bombay.

Growth of Postal System: The first postal system was introduced by Lord Clive in 1766, which was meant for official purposes only. In 1837, it was opened to the public and the first postal stamps were issued in Sind in 1852. In 1854, the East India Company set up the postal service as a separate entity under a Director-General and issued postal stamps to be used on an all-India basis. The postal system in India became operative by Act VI of 1858 and by another act in 1898 the Posts and Telegraphs system received statutory recognition.

At the time of independence there were only 22,116 post offices in the country but with the extension of postal facilities to all the villages there has been a phenomenal growth. On July 1, 1968, the 100,000th post office was opened in Sahabad district of Bihar. At present there are 140,435 post offices, out of which 125.743 are in the rural areas and 14,692 in the urban areas.

In 1853 the first long-distance overhead telegraph was introduced between Calcutta and Agra and later the line was extended to Bombay and Peshawar. Telegraph circuits were gradually extended to all parts of India by 1867. The centenary of the telegraph system was celebrated in November, 1953. At present there are 34,096 telegraph offices.

The Telephone service in India was started in 1881 when a 50-line telephone exchange was installed in Calcutta and the first automatic telephone exchange was installed at Simla in 1913. At the time of independence there were only 321 exchanges and 86,000 telephones in the country. At present there are 2,149,470 exchanges and 2,468,874 telephones.

POSTS AND TELEGRAPHS

Administration: The Indian Posts and Telegraphs Department, the second largest civil employer in the country, comes under the administrative control of the Ministry of Communications. The Secretary of the Department holds charge of the office of the Director General, Posts and Telegraphs as also that of the Chairman of the Posts and Telegraphs Board. The country is divided into 15 telecommunication circles, 16 postal circles, 17 Posts and Telegraphs Civil circles, 5 Posts and Telegraphs electrical circles and 30 telephone districts.

Staff: The total staff strength on March 31, 1981 was 852 million including .284 milion extra departmental employees and 7,084 industrial workers. 33 officers and 3,293 other ranks (including 139 under training were on deputation to the Army Postal Service.

No. of Post Offices: At the end of 1981, the total number of Post Offices in the country was 140,435 out of which 125,743 were in the rural areas and 14,692 in urban areas. Against a target of 1,600 post offices to be opened during 1981-82, the actual number of post offices opened up to end of 1981 was 1,054 (including 247 in tribal areas), including 157 post offices opened in the urban areas.

During the Sixth Five-Year Plan, it is proposed to open 8,000 post offices. Out of these 63 per cent are to be opened in the backward, hilly and tribal areas.

Rural Mobile Post Offices: The cycle post office was opened in Shirgaon, near Ratnagiri, in 1974. Against the target of 2,000 villages to be covered by Mobile Post Offices in the rural areas, 1,187 have been covered till December 31, 1981. This includes 276 villages in the tribal areas. The facility had to be withdrawn from a number of villages as it was not being utilised fully. The total number of villages receiving this facility through mobile post offices was 82,800 as on December 31, 1981.

Postal Traffic: In 1981-82 about 9,730 million pieces of mail were handled of which 243.3 million were registered articles, about 2.5 per cent of the total mail. 111.8 million inland money orders totally valued at Rs. 12,510 million were issued, earning the department Rs. 300 million as commission. 11.1 million value payable articles were dealt with. 723.415 parcels were despatched to foreign countries and 714,586 parcels were received from abroad.

Letter Boxes: At the end of 1981, the total number of letter boxes in the country was 495,853 out of which 421,604 were in the rural areas.

Mail Conveyance: The mail is carried both by surface and air. Various modes of conveyance such as rail, road, transport runners etc. are used for surface mail. Within the country all principal cities are connected by air, and other cities are connected by the surface link.

All inland letters, letter cards, postcards, registered letters and money orders are normally carried by air without surcharge. During 1980-81 a total weight of 2.927 million kg was carried from India for abroad and domestic mail within the country was 12.15 million kg.

Commemorative Special Stamps (1981), Occasion & date respectively: 51st death anniversary of Mazharul Haque, a great journalist, poet and writer, Jan 2; First centenary of St. Stephens College, Delhi, Feb. 1; 1,000th anniversary of the installation of the statue of Gommateshwara, Feb. 9; 25th death anniversary of G. V. Mavalankar, first Lok Sabha Speaker, Feb. 27; 50th anniversary of the martyrdom of Bhagat Singh, Raj Guru, Sukhdev, Chandrashekhar Azad and others 'Homage to Martyrs', Mar. 23; 84th death anniversary of Heinrich Von Stephan, founder of Universal Postal Union, Apr. 8; International Year of Disabled Persons, Apr. 20; Tribes of India Series, 4 stamps, May 30; Highlighting the need of Conservation of Forests. Environmental Conservations. June 15; 101st birth anniversary of Nilmoni Phukan a poet and freedom fighter from Assam, June 22; First death anniversary of Sanjay Gandhi a young leader, June 23; Anniversary of Launching of Rohini Satellite by Indian Satellite Launching Vehicle (SLV-3), July 18; First set of 2 stamps of IX Asian Games, 1982, July 28; Series of Flowering Trees, 4 stamps, Sep. 1; World Food Day, Oct. 16; Butterflies, 4 stamps, Oct. 20; Renowned actor and great dramatist, Bellary Raghava, Oct. 31; Presentation of colours and reunion of Mahar Regiment, Nov. 9; Children's Day, Nov. 14; Second issue (third stamp) on IX Asian Games, 1982, Nov. 19; Death centenary of great historian of India Kashi Prasad Jayaswal, Nov. 27; International Day of Solidarity with the Palestinian People, Nov. 29; To commemorate Navy Day, Dec. 4; In honour of Henry Heras, an Indologist and founder of Bombay Historical Society, Dec. 14; To commemorate the inauguration of the IOCOM Submarine Telephone Cable, Madras, Dec. 24; Fifth World Cup Hockey, Bombay, Dec. 29; Third issue (fourth stamp) on IX Asian Games, 1982, Dec. 30.

Overseas Communications Service:

India's external telecommunication service is operated by the Overseas Communications Service (OCS) with its headquarters at Bombay, which is a department of the Ministry of Communications, Government of India.

OCS operates in four international gateway centres located at Bombay, New Delhi, Calcutta and Madras, and provides Overseas telephone, telex, telegraph radiophoto leased teleprinter, voice grade and high speed data services. International TV relays and broadcast transmission and reception facilities for news agencies and government are also provided.

Almost 99% of India's external telecommunications are handled by OCS via INTELSAT Satellite in the IOR, through its two satellite earth-stations at Arvi near Poona (established in 1971) and Dehradun (established in 1976). A modern wideband submarine telephone cable system has also been established between Madras and Penang in Malaysia, providing diversity routine facilities. Electronic stored programme control gateway telephone and telex exchanges at the OCS gateway centres facilitate the most modern means of handling telephone and telex calls. Fully Automatic Subscriber Dialled International Telex service is available to more than 75 countries. International Subscriber Dialled (ISD) telephone service which is presently available to UK from the metropolitan cities of Bombay, New Delhi, Calcutta and Madras is being extended to more countries.

Private Leased Circuits: As on 1.1.1982, OCS has leased 14 voice-grade circuits for telephone and data services and 124 teleprinter circuits.

Program Transmissions (Voice-casts): Facilities are provided on the overseas telephone system for the transmission and reception of "voice-casts" by correspondents of foreign broadcasting organisations for relay on their broadcast networks.

Press Broadcasts: OCS provides multi-address teleprinter news broadcast transmissions on behalf of the Ministry of External Affairs, simultaneously to about 66 Indian consular posts around the world. OCS also provides reception of foreign radio teleprinter press broadcasts on behalf of news agencies. Press Bulletin Services at concessional tariff are also provided to news agencies. 20 such Press Bulletin circuits are in service as on January 1, 1982.

Sixth Plan Outlay and Expenditure: Against an outlay of Rs. 850 million the actual expenditure during the first (1980-82) and second (1981-83) years of the Sixth Plan were Rs. 264.5 million and Rs. 176.2 million respectively. The anticipated expenditure for 1982-83 is Rs. 90 million.

During 1982-83 Overseas Communication Services registered considerable growth in its gross revenue and net profit, figures rising from Rs. 743 million and Rs. 460 million in 1981-82 to Rs. 850 million and Rs. 568.9 million in 1982-83.

"QMS" (Quick Mail Service) was introduced in India on August 1, 1975 interconnecting the headquarters of the State/Union Territories. As on December 31, 1979 QMS was available in 45 national and 410 regional centres. On an average more than 450,000 articles are handled per day by QMS.

Savings Bank: Over 139,000 post offices offer savings bank facilities. About 45 million account-holders have savings in the post offices. The post office savings bank runs all savings schemes. The progress of post office savings bank business since 1978 is given below:

As on March 31	Savings Bank		Cumulative Time Deposits		Savings Certificate
	No. of depositors (in million)	Balance (Rs. million)	No. of depositors (in million)	Balance (Rs. million)	Balance (Rs. million)
1978	25.0	15,210	3.1	2,080	9,190
1979	26.8	16,950	3.0	2,370	11,250
1980	30.6	18,770	3.2	2,840	13,570
1981	33.3	1,990	4.2	3,390	15,620

During 1982-83 the net small savings collection in the country was over Rs. 16,500 million. The collection made by Maharashtra and West Bengal during 1982-83 were Rs. 3,110 million and 2,460 million respectively.

Postal Life Insurance: 120,170 new policies for an assured total sum of Rs. 1,021.5 million were issued during 1980-81 as against 108,975 policies for Rs. 830.9 million secured in 1979-80.

Telegraph Offices: There were 34,096 telegraph offices as on March 31, 1981. During 1980-81, 2,459 telegraph offices were opened in the country. During the Sixth Plan period, it is proposed to open 15,000 more telegraph offices.

During 1980-81, 71.4 million inland telegrams were booked. Besides 12.15 million phonograms, 6.7 million greeting telegrams, 1,548 inland, 694 outgoing and 693 incoming foreign phototelegrams were handled during the year. 2.47 million phonograms were delivered over the phones during 1980-81.

Devanagari Telegraph Service: The number of telegraph offices providing this service rose from 10,748 in 1978-79 to 11,200 in 1980-81.

Telex: This service is available in 62 telegraph offices in the country. 2.07 million telegrams were booked and 1.73 million were delivered over telex.

Telephones: The switching capacity in the country reached 2,468,874 lines with the addition of 133,029 lines during the year. There was also a net addition of 133,404 direct exchange lines bringing the total of direct exchange lines up to 2,149,470,441. New telephone exchanges were installed so that by March 1981 end 7,871 departmental exchanges were operating in the country. The number of connections provided in the Sixth Plan up to February 1, 1983 are as follows: Andhra Pradesh: 36,489; Bihar: 4,645; Delhi: 47,628; Gujarat: 34,764; Haryana, Punjab, Himachal Pradesh and Chandigarh: 29,047; Jammu & Kashmir: 2,745; Karnataka: 30,639; Kerala: 17,629; Madhya Pradesh: 8,219; Maharashtra: 86,901; North-Eastern States: 3,832; Orissa: 3,785; Rajasthan: 16,311; Tamil Nadu: 26,088; West Bengal: 20,361.

International Telephone Service: Direct telephone service is available with 44 countries of which 40 countries are connected through satellite circuits. Switched telephone service is now available to almost all the countries of the world. The year 1983 marks the completion of 50 years of telephonic link between India and Great Britain.

Mobile Phone Exchange: A trailer-mounted mobile telephone exchange (first of its kind in the country) designed and manufactured by Indian Telephone Industries, Bangalore was commissioned on January 19, 1977. The exchange with a 1,000 line capacity, costing Rs. 200,000 will provide telephone services in any area. It has all the facilities of a regular exchange.

Subscriber Trunk Dialling: First STD route was introduced between Delhi and Jaipur on September 8, 1964. At present out of 373 Dist Headquarters outside the State Capitals, 355 are linked with State Capitals. The number of routes having STD facility from State Capitals to Dist. Headquarters has increased from 79 to 88 during 1980-81. The routes having STD facility from Dist. Headquarters to State Capitals have gone up from 79 to 88. Additional routes with 'No Delay Service' were introduced between State Capitals and Dist. Headquarters and as on 31.3.1981 there were 256 routes with 'No Delay Service' between State Capitals and Dist. Headquarters and 264 in the reverse direction.

The first electronic trunk automatic exchange (TAX) was inaugurated in Bombay on April 30, 1983 for quicker maturity of STD calls beginning with "O".

International Telex Service: Fully automatic subscriber dialled international telex service is available in respect of 49 countries and switched telex service to almost all countries of the world. During the year direct telex service was extended to Thailand, Malaysia, Kenya, Spain and Egypt on fully automatic basis through electronic type Gateway Telex Exchange, Bombay. Switched telex service was extended to New Caledonia.

BROADCASTING

Organised broadcasting was started in India in 1927 by a private Indian Broadcasting Company from Bombay and Calcutta. This lasted till 1930. The Government of India decided to run radio stations in 1932. In 1936, broadcasting was constituted into a separate department. All India Radio replaced the earlier Indian State Broadcasting Service on June 3, 1936. The real break in broadcasting came with World War II. Most of the news services and external services originated during the war years.

Akashvani: All India Radio operates this service over a network of broadcasting stations located throughout the country. It caters to the complex needs of all communities in the country.

Broadcasting constitutes the most powerful medium of mass communication covering 89 per cent of our population. At the end of 1981 there were 85 broadcasting stations.

An outlay of Rs. 1,223.8 million has been fixed during the Sixth Plan for development projects.

Commercial Broadcasting: Commercial services were started in November, 1967. The earnings of commercial Broadcasting service of Akashvani up to January 31, 1982-83 was Rs. 135.9 million.

Broadcast Receiver Licences: The number of Broadcast Receiver Licences and TV licences in force as on 30.9.1979 for the three quarters of the calendar year 1979 was 16,467,890 and 887,384 respectively. It was expected that the number of Broadcast Receiver Licences and TV licences may go up to 21,200,000 and 1,000,000 respectively by the end of December 31, 1979. During the calendar year 1978 the number of unlicensed sets detected was 304,773 Radios and TVs together and Rs. 3,855,230 as licence fee and Rs. 3,401,409 as surcharge were collected.

TELEVISION

Television at Delhi started as an experimental service in 1959 and since then it has grown rapidly. In 1961, an educational TV service was also started in Delhi with the help of the Ford Foundation and in collaboration with the educational authorities of Delhi. A regular daily service was started from Delhi in 1965. The duration of the general television progrramme in the evening transmission has been increased to three hours from July 1970. The Bombay television station started on 2nd October 1972. It started with a programme time limited to 2 hours and 15 minutes daily, which has been increased to 3 hours on week days and 3½ hours on Saturdays and Sundays. Commercial TV started in India on 1st January, 1976.

At present Television has 7 full-fledged centres at Srinagar, Bombay, Madras, Calcutta, Lucknow, Delhi and Jullundur-Amritsar; 3 Programme Production Centres at Delhi, Cuttack and Hyderabad; 7 SITE on-going transmitters at Hyderabad, Muzaffarpur, Sambalpur, Raipur, Jaipur, Gulbarga and Ahmedabad; and 3 Relay centres at Mussoorie, Kanpur and Pune. The most recent station in the network was commissioned at Jullundur on April 13, 1979.

At present TV network covers an area of 0.2 million sq. km. (6.1 per cent of the total) with a population of 83.21 million out of which 48.16 million is rural and 35.05 million is urban.

During 1982-83 television service has been extended to 53,883 villages covering a rural population of 68.3 million.

An outlay of Rs. 869.5 million has been allotted for expansion plans during 1980-85.

The Sixth Plan of TV service envisages setting up of four new TV centres at Ahmedabad, Bangalore, Trivandrum and Gauhati and providing for production facilities at Raipur, Gulbarga, Jaipur and Muzaffarpur. Eight additional centres are also proposed to be set up.

Commercial T.V.: Commercial service was started in India from January 1, 1976. Ten per cent of the total transmission time is available for commercials every day. The revenue from commercials from 1978-79 to 1981-82 (in Rs. million) is 1978-79: 49.7; 1979-80: 61.6; 1980-81: 80.9; 1981-82: 115.

CIVIL AVIATION

J. R. D. TATA'S historic flight from Bombay to Karachi and return to Juhu airport. Bombay, in a twin-seater single-engine Leopold Moth on October 15, 1982, commemorating the same solo flight he had made exactly 50 years ago, also marks the golden jubilee of civil aviation in India.

In the thirties, Juhu airport was nothing more than a cluster of mud huts in swampy land and often submerged in floods during the monsoon. It was the rustic bullock-carts that supplied aviation fuel for three or four small aircraft that was all that comprised the airline fleet.

In marked contrast is the present sophisticated fleet of Boeing planes that converge day and night on the tarmac from all parts of the world and make Sahar a buzzing and bustling international airport.

It was J.R.D.'s vision and dynamism that enabled Air-India Boeings to take to the skies and achieve remarkable success as one of the foremost international airlines of the world. It is indeed the pride of India. Over the years the "father of civil aviation", as J.R.D. has been rightly called, nursed Air-India International and established air links with America, Europe and Asia.

Growth: In point of fact, 1911 marks the beginning of civil aviation in India for it was in that year demonstration flights were made for the first time. The flight by a Frenchman, M. Picquet, carrying mail from Allahabad to Naini was believed to be the first air mail service in the world.

But organised air transport began in India only in 1920 and the Civil Aviation Department was set up in 1927. In 1929, Imperial Airways opened a weekly service between U.K. and India. In 1932 Indian National Airways Ltd. and Tata Airways Ltd. opened two services one from Karachi to Madras and the other from Karachi to Lahore.

The Empire Air Mail Scheme was introduced in 1937. The commencement of World War in 1939 paralysed all air services. From 1945 onwards air services progressed steadily. In 1945, 11 aviation companies were formed, and the Air Transport Licensing Board was established in 1946.

But it is only after Independence that civil aviation in India has made spectacular progress. In 1949 night air mail services were opened between the four metropolitan cities. In 1953 the Indian Airlines Corporation and Air-India International were set up by passing the Air Corporation Act. The Air Transport Council was set up in 1955 to advise the Government on matters relating to the two corporations.

At present the operation of air services is entrusted to two public sector corporations, Air India for the international services and Indian Airlines for the domestic services. The International Airports Authority of India, which was established in 1972, is responsible for the management of international airports.

Department of Civil Aviation: The department of civil aviation is one of the two departments in the Ministry of Tourism and Civil Aviation under the independent charge of a Minister of State.

Minister of State for Tourism and Civil Aviation: Khurshid Alam Khan. **Director General of Civil Aviation:** J. N. Kaul. (For other officials see "Government of India Personnel".)

Sixth Plan Outlay: Rs. 1,585 million.

Total Plan Outlay for 1983-84: Rs. 400 million

Annual Budget for 1983-84: Rs. 400 million

INTERNATIONAL AIRPORTS AUTHORITY OF INDIA, Yashwant Place, Chanakyapuri, New Delhi 110021. Based at Delhi, I.A.A.I. was established as a statutory corporation with effect from February 1, 1972 for the management and development of the four international airports at Bombay, Calcutta, Delhi and Madras.

Members: Capt. A. M. Kapur, *Chairman;* Capt. Dhruva Bose, *Chairman and Managing Director, Air India;* Capt. K. Chadha, *Managing Director, Indian Airlines;* Ved Prakash, *Member (Finance & Admn.), I.A.A.I.;* P. S. Sandhawalia, *Member (Engg.), I.A.A.I.;* A.V.M. P. S. Dere, *Member (Operations), I.A.A.I.:* Vacant, *Director-General, Tourism;* Air Vice-Marshal C. K. S. Raje, *Director-General. Civil Aviation.*

General Managers of International Airports: Bombay: Air Cdr. N. W. Tilak; **Delhi:** Air Cdr. N. Sinha Ray; **Calcutta:** Shri A. V. Anand; **Madras:** K. K. Gulati.

I.A.A.I./Operational Statistics		1980-81	1981-82	1982-83*
Aircraft Movement	Nos. in '000	111	108	
Passengers Movement	-do-	10,738	11,986	
Cargo handled.	Tonnes '000	189	234	
Mail handled	-do-	35	30	
Revenue	Rs. in million	417.8	547.2	628.6
Operating Expenses	-do-	269.5	333.8	387.9
Profit before tax	-do-	148.3	213.4	240.7
Provision for tax	-do-	79.6	106.8	122.0
Profit after tax	-do-	68.7	106.6	118.7

*Revised estimates.

AIRPORTS: At the end of December, 1982, 87 airports were maintained by the Civil Aviation Department.

Major Aerodromes (22) are: Agartala, Ahmedabad, Amritsar, Aurangabad, Barapani, Bhubaneswar, Bhuj, Gauhati, Hyderabad, Imphal (Tulihal), Jaipur, Khajuraho, Lucknow, Mangalore, Nagpur, Panagarh, Patna, Ranchi, Trivandrum, Tiruchirapalli, Udaipur and Varanasi.

The following are Intermediate Aerodromes (20): Belgaum, Bhopal, Bhavnagar, Chakulia, Dibrugarh (Mohanbari), Gaya, Indore, Jabalpur, Kandla, Keshod, North Lakhimpur, Port Bihar, Raipur, Rajkot, Silchar, Tirupati, Vadodara, Vijayawada, Visakhapatnam and Madurai.

The Minor Aerodromes (45) are: Akola, Balurghat, Bilaspur, Behala, Cooch-Behar, Cuddapah, Delhi, Hassan, Hadapsar, Jharsuguda, Juhu, Kanpur, Khandwa, Khowai, Kailashahar, Kamalpur, Kota, Kulu, Jhansi, Jogbani, Kolhapur, Donakonda, Lalitpur, Malda, Muzaffarpur, Mysore, Nadirgul, Panna, Palanpur (Deesa), Porbandar, Pantnagar, Passighat, Rajamundry, Raxaul, Rupsi, Satna, Shella, Sholapur, Tanjore, Vellore, Warangal, Ramnad, Coimbatore, Dehradun and Ludhiana.

In addition there are many aerodromes controlled, owned and maintained by Ministry of Defence, State Governments, Public undertakings, private individuals and bodies.

AIR-INDIA: Headquarters: Air-India Bldg., Nariman Point, Bombay 400021. Has online and offline sales offices and representations all over the world.

Starting with just one weekly service to London in June 1948, Air-India now operates extensive scheduled passenger and cargo services from Bombay and five other Indian cities—Calcutta, Delhi, Madras, Trivandrum and Amritsar to Africa (Addis Ababa, Nairobi, Accra, Lagos, Seychelles, Mauritius, Dar-es-Salaam, Lusaka and Harare); to U.S.A. (New York); to Canada (Montreal); to Europe (London, Birmingham, Paris, Amsterdam, Frankfurt, Geneva, Rome, Zurich, Brussels and Moscow); to West Asia (Doha, Abu Dhabi, Dhahran, Dubai, Bahrain, Kuwait, Aden, Muscat, Jeddah, Ras-al-Khayam, Sharjah and Sanaa) and to East Asia (Dacca, Bangkok, Hong Kong, Tokyo, Osaka, Kuala Lumpur, Singapore, Perth and Sydney).

Fleet: Air-India today has ten Boeing 747s, five Boeing 707s and three Airbus A300s.

Board of Directors: Capt. Dhruva Bose, *Chairman-cum-Managing Director;* Air Chief Marshal Dilbagh Singh, M. M. Kohli, G. N. Mehra, Miss Prem Lal, R. P. Billimoria, Capt. A. M. Kapur, Capt. K. Chadha, C. L. Sharma, Capt. D. Bose, J. R. D. Tata. and Natwar Singh.

Management: Capt. Dhruva Bose, *Chairman-cum-Managing Director;* C. L. Sharma, *Dy. Managing Director;* Capt. D. Bose, *Dy. Managing Director;* J. N. Mogrelia, *Director of Finance;* H. M. Kaul, *Commercial Director;* Capt. C. P. Narayanan, *Director of Operations;* S. K. Nanda, *Director, Manpower Planning & Special Services;* H. C. Kapoor, *Director, Engineering;* P. Jayant, *Dy. Director, Management Services;* P. D. Marathe, *Controller of Stores & Purchases;* G. D. Dubey, *Controller, Communications;* S. K. Datta, *Dy. Director, Planning;* V. R. Subnavis, M. P. Patkar, *Controller, Civil Works & Properties;* and J. J. Naegamvala *Dy. Director, Inflight Service.*

Subsidiary Companies: The Hotel Corporation of India and Air-India Charters Limited.

The 288-room Centaur Hotel at Bombay Airport is the first 5-star hotel built by the Hotel Corporation of India Ltd., a wholly-owned subsidiary of Air-India. The second of the proposed chain was opened at Delhi Airport in November 1982. It has 416 rooms. The work has started on two other 5-star hotels, one on Juhu Beach, Bombay (396 rooms) and the other at Srinagar, Kashmir (281 rooms). The latter is part of a convention complex. In addition, two Japanese style hotels are to be constructed in collaboration with the Hokke Club of Japan at the famous Buddhist pilgrim centres of Rajgir in Bihar and Kushinagar in Uttar Pradesh. They will be named Centaur-Hokke Hotels.

Air-India set up on September 9, 1971 Air-India Charters Limited. This is a non-IATA charter company set up with a capital of Rs. 0.5 million.

INDIAN AIRLINES: (Head Office: Airlines House, 113, Gurdwara Rakab Ganj Rd., New Delhi 110001). The fleet as on June 30, 1982: 10 Airbus A300 B2, 25 Boeing 737, 8 Fokker Friendships F-27, 12 HS 748. The Airline's services extend over the entire sub-continent, including Nepal, Sri lanka, Afghanistan, Pakistan, Male and Bangla Desh. With operations to 70 stations, every 2.5 minutes one Indian Airlines plane is either taking off or landing at any of these airports. The operations of the Airlines have been divided into four regions: *Eastern Region:* Calcutta; *Western Region:* Bombay; *Northern Region:* Delhi; *Southern Region:* Madras.

Board of Directors: *Chairman:* R. P. Billimoria; *Directors:* Capt. Kamini Chadha, Dr. B. Venkataraman, Air Chief Marshal Dilbagh Singh, K. K. Srivastava, Miss P. Lal, Capt. A. M. Kapur, Capt. Dhruva Bose, Capt. N. M. Pereira.

Executive Heads: R. P. Billimoria, *Chairman;* Capt. K. Chadha, *Managing Director;* Capt. N. M. Pereira, *Deputy Managing Director;* S. Sen Gupta, *Director of Finance;* Capt. P. N. Reddy, *Director of Operations;* S. A. Rajagopal, *Commercial Director;* Dharam Vir, *Director of Engineering;* Capt. J. F. Ranji, *Director of Training (CTE);* R. K. Kanchan, *Controller of Stores & Purchases;* Capt. B. K. Bhasin, *Director, Flight Safety;* Ajit S. Gopal, *Public Relations Manager;* K. K. Sharma, *Controller, Ground Support;* Wg. Cdr. N. C. Bharma, AVSM, *Secretary.*

Regional Directors: Capt. R. A. Williams, Bombay (Western Region); Capt. R. K. Sen, Calcutta (Eastern Region); S. Sen, Delhi (Northern Region); Capt. V. K. Mehta, Madras (Southern Region).

Operations of Air India and Indian Airlines

The following table about the operations by Air India and Indian Airlines will give an idea about the performance of the two national carriers during the years 1981 and 1982:

	1981	1982
1. Hours flown	161,874	163,909
2. Kilometres flown (000)	88,067	91,161
3. Passengers kilometres flown (000)	12,038,725	13,263,882
4. Passengers carried (000)	7,498	8,293
5. Cargo carried freights (Tonnes)	133,269	141,473
6. Mail " " "	20,395	20,482
Total " " "	153,664	161,955
7. Tonne Kms. preferred (000)		
(i) Passenger	1,051,246	1,148,157
(ii) Freight	427,719	432,363
(iii) Mail	37,332	36,811
Total	1,516,297	1,617,331
8. Capacity tonne Kms. available (000)	2,384,003	2,616,073
9. Revenue weight load factor (%)	63.6	61.8
10. **Average length of haul in Kms.**		
a) Passenger	1,606	1,599
b) Freight	3,209	3,056
c) Mail	1,830	1,797
11. **Operating Revenue (Rs. in thousands)**		
a) Passenger	6,945,379	8,455,957
b) Freight	1,484,371	1,716,012
c) Mail	182,118	194,105
Total	8,611,868	10,366.075
12. **Operating Revenue per Unit of service**		
a) Passenger Revenue per passenger (Kms.)	0.58	0.64
b) Freight Revenue per tonne (Kms.)	3,47	3.97
c) Mail Revenue per tonne (Kms.)	4.69	5.27

VAYUDOOT was launched on January 26, 1981 with an authorised capital of Rs. 250 million to provide airlinks initially to inaccessible areas in the North-Eastern Region and is jointly owned by the Indian Airlines and Air India on a 50:50 basis.

At present the company is operating the following major services: New Delhi-Ludhiana: Gangtok-Bagdogra; Jamshedpur-Ranchi-Patna-Muzzaffarpur; Hissar; Gauhati-Shillong-Silchar; Agartala-Kailashshahr-Agartala; Chabua-Tezu-Chabua; Calcutta-Jamshedpur-Rourkela-Ranchi-Patna, Delhi-Chandigarh-Kulu and Bombay-Kandla.

Chairman (Part-time): Capt. A. M. Kapur.

FLYING CLUBS: There are 25 subsidised flying clubs with their headquarters at Amritsar, Hyderabad, Gauhati, Banasthali, Patna, Bombay, Coimbatore, New Delhi, Bangalore, Vadodara, Lucknow; Hissar, Jamshedpur, Karnal, Trivandrum, Indore, Nagpur, Madras, Jullundur Gantt., Bhubaneshwar, Patiala, Jaipur, Behala (Calcutta), Raipur and Ludhiana.

During 1982, Government paid an amount of Rs. 2.03 million as subsidy to these clubs who logged a total of 14,184 hours for imparting training to trainees/members.

GLIDING CLUBS: Besides the Government centre at Pune there are 16 subsidised gliding clubs/gliding wings of flying clubs at Agra, Ahmedabad, Amritsar, Delhi, Deolali, Hissar, Jaipur Jullunder, Kanpur, Pilani, Raipur, Patiala, Patna, Hyderabad, Ludhiana and Pinjore.

The number of gliders registered up to December 1982 was 113 of which 31 hold current certificate of airworthiness.

RESEARCH & DEVELOPMENT DIRECTORATE

Principal functions: *(i)* Airworthiness engineering including type-certification of civil aircraft and aeronautical equipment; approval of modifications to civil aircraft, etc. *(ii)* Research, evaluation and development, including investigations on operational problems like aircraft noise, atmospheric turbulence, evaluation of performance and economics of civil transport and other aircraft, etc, *(iii)* Prototype development, including design and development of prototype light aircraft gliders, sailplanes, winches, etc. *(iv)* Airworthiness engineering training.

AIRCRAFT DEVELOPMENT: An engine mount for reengining of the PUSHPAK aircraft has been developed and fabricated. Due to shortage of spares of the existing engine being used on this aircraft it has become necessary tc carry out this modification for full utilisation of the existing fleet of PUSHPAK aircraft being used by flying clubs and other operators in the country.

Glider Development: As on December 31, 1982, the design, development and construction of prototype powered glider RG-1 was in an advanced stage and was expected to be completed and test-flown shortly.

Winch Development: The fabrication of the second prototype of a diesel engine powered winch is in progress. A set of design drawings for Dhanush-I diesel engine was prepared.

Aircraft Registration: At the end of December 1982, 688 aircraft held current certificates of registration and 293 aircraft held current certificates of airworthiness.

Navigational and Communication Aids: As on December 31, 1982, the Aeronautical Communication Services were operating and maintaining 90 Aeronautical Communication stations, providing 256 acromobile channels in the aeronautical mobile service, 275 radio and landline circuits in the aeronautical fixed telecommunication network, 216 navigational channels and 9 ground-to-air voice broadcast channels in the Aeronautical Broadcast Service.

During the year 1981. Direct Speech Circuits were established between Madras-Colombo, Madras-Nagpur, Bombay-Cochin; Landline Teleprinter Circuits were established between Madras-Colombo Madras-Kuala Lumpur and an area Control Centre commissioned at Trivandrum.

Training Centres: The Civil Aviation Training Centre, Allahabad, comprising of an Aerodrome School and Communications School, is the principal training centre in the country, where basic training and refresher courses are conducted for departmental officers During the year 1982, 324 persons were trained in various categories.

Facilities exist for training of glider instructors and winch operators at the Government Glider Centre, Pune. Facilities are available at the Fire Services Training School at 229, N. Subash Rd., Calcutta, for training of departmental candidates for courses in "crash and fire rescue". Facilities for training foreign national are also available at Allahabad and other centres under various aid schemes.

The establishment of a Civil Flying Academy is under consideration of the Government.

Accidents: During the period January 1, to December 31, 1982, there were 25 nofifiable accidents in India. Three of the accidents proved fatal resulting in the death of 6 crew members and 15 passengers.

Air Transport Agreements: Agreements have been concluded with Afghanistan, Australia, Bahrain, Bangladesh, Belgium, Burma, Canada, Czechoslovakia, Egypt, Ethiopia, Federal Republic of Germany, Fiji, France, Ghana, Hungary, Indonesia, Iraq, Iran, Italy, Japan, Kenya, Kuwait, Lebanon, Malaysia, Mauritius, Republic of Maldives, Nepal, Netherlands, Nigeria, Poland, Pakistan, Philippines, Qatar, Saudi Arabia, Seychelles, Singapore, Sri Lanka, Sweden, Switzerland, Syria, Thailand, U.K., U.S.A., U.S.S.R., Yemen People's Democratic Republic, Zambia, Tanzania, North Yemen, Oman and U.A.E.

Civil Aviation Security: Two bills, namely the Anti-hijacking Bill and the Suppression of Unlawful Acts against safety of Civil Aviation, were passed by Parliament and received the President's assent on November 6, 1982. These bills have come into force on November 15, 1982.

PORTS

A PORT being the gateway to a country's commerce and prosperity, it facilitates the movement of passengers and cargo between the ship and shore through well-equipped and maintained docks, wharves, quays, berths and jetties. The Indian ports, scattered over a vast coastline, have played an important role in maritime trade. Even during the ancient civilization of the Monenjodaro period and through the Moghul period India was well-known for trade in spices, pepper, oils, silks, ivory, precious stones and other luxuries to far-off countries like Alexandria and Rome. History has recorded the many maritime struggles between the British, French, Dutch and the Portuguese for the supremacy of the Indian coastline with the eventual success of the East India Company.

As India stepped into the industrial age under British rule, Indian ports were fast modernised and the port capacity expanded. At the time of independence there were only four major ports: Bombay, Calcutta, Cochin and Madras. Today we have ten major busy ports bustling with passenger and cargo activities, both domestic and international. Additionally, there are 21 intermediate ports and 152 minor ports.

To meet its tight schedule, each major port is equipped with its own road, waterways and railway network connecting it to the sprawling hinterland. Berthing, bunking, watering facilities, dry docks (wherever possible) for servicing facilities besides transit sheds, warehouses, etc. are other development aspects necessary for the smooth functioning in every major port.

Industries, All India Assocn. of, Wakefield House, 11, Sprott Rd., Ballard Estate, Bombay 400038.

Instrument Mfrs.' and Dealers' Assocn., All India, A-32, Navyug Nivas, Dr. D. Bhadkamkar Mrg., Bombay 400007

Instruments Export Organisation, A-32, Navyug Nivas, 187, Dr. D. Bhadkamkar Rd., Bombay 400007.

Insurance Assocn. of India, Bombay Regnl. Council, Radia House, 6, Rampart Row, Bombay 400023.

Iron Merchants' Assocn., Bombay, 501, Steel Centre, Sant Tukaram Rd., Bombay 400009.

Iron & Steel Exporters Assocn., All India, Loha Bhavan, P. D'Mello Rd., Bombay 400009.

Iron & Steel Scrap Assocn. of India, 301/2, Giriraj, 3rd Flr., 73, Sant Tukaram Rd. Bombay 400009.

Khadi & Village Industries Assocn., Bombay, 286, Dr. D. N. Rd., Bombay 400001.

Leather Goods Mfrs. and Dealers' Assocn., 157/161, Princess St., Bombay 400002.

Livestock Feeds Mfrs. Assocn. of India, Compound, 111, Mittal Chambers, Nariman Pt., Bombay 400021.

Lorry Operators' Syndicate, Bombay, 575, Sheriff Devji St., Bombay 400003.

Loss Prevention Assocn. of India Ltd., Warden House, Sir P. Mehta Rd., Bombay 400001.

Machine Tool Mfrs. Assocn., Indian, 82, Jolly Maker Chambers No. 2, 225, Nariman Point, Bombay 400021.

Man-Made Fibre Industry, Assocn. of, 78, Veer Nariman Rd., Bombay 400020.

Man-Made Fibre Spinners' Assocn., Jolly Maker Chambers No. 2, Nariman Pt., Bombay 400021.

Man-Made Textiles, Devpt. Council for, C/o Office of the Textile Commr., New C.G.O. Bldg., New Marine Lines, Bombay 400020.

Manufacturers' Organisation, All India, Jeevan Sahakar, Sir P. Mehta Rd., Bombay 400001.

Marble & Tile Merchants' Assocn., Bombay, C/o C. Bhogilal & Co., Mint Rd., Bombay 400001.

Master Printers' Assocn., Bombay, 216, Neelam, 108, Worli Seaface Rd., Bombay 400018.

Mercury Traders' Assocn. Ltd., Bombay, 220, Samuel St., Bombay 400003.

Metal Exchange Ltd., Bombay, Gogate Mansion, Kika St., Bombay 400002.

Metal Finishers Assocn., Parijat, Block 24, 95, Marine Drive, Bombay 400002.

Mill Gin Store Merchants' Assocn., 88/92, Nagdevi Cross Lane, Bombay 400003.

Millowners' Assocn., Elphinstone Bldg., Veer Nariman Rd., Bombay 400023.

Mineral Merchants' & Mfrs.' Assocn., Bombay, 129, Kazi Syed St., Bombay 400003.

Motor Merchants' Assocn. Ltd., Bombay, Sukh-Sagar, Sandhurst Bridge, Bombay 400007.

Motor Parts Dealers' Assocn., Maharashtra, 34, Mathew Rd., Bombay 400004.

Motor Transport Assocns., Fedn. of, 26, P. D'Mello Rd., Bombay 400009.

Mudrak Sangh, Mumbai, C/o General Printers & Publishers, 263/F, Raja Ram Mohan Roy Rd., Bombay 400004.

Newspapers' Assocn., Indian Language, Janmabhoomi Bhavan, Ghoga St., Bombay 400001.

Non-Ferrous Metal Industries Assocn., All India, C/o Jeewanlal (1929) Ltd., Liberty Bldg., Marine Lines, Bombay 400020.

Non-Ferrous Metals Mfrs. Assocn., Indian, C/o Bombay Chamber of Commerce & Ind., Mackinnon Mackenzie Bldg., B. Estate, Bombay 400038.

Oil Industry Assocn., All India Non-Edible, Royal Insurance Bldg., J Tata Rd., Bombay 400020

Oil Industry and Trade, Central Orgn. for, Anna Bhavan, 87/C, Broach St., Bombay 400009.

Oil Millers' Assocn. Ltd., Bombay Local, 363, Katha Bazar, Bombay, 400009.

Oil and Produce Exporters' Assocn., Indian, Bajaj Bhavan, Nariman Pt., Bombay 400021.

Oilseeds and Oils Exchange Ltd., Bombay, Jenabai Bldg., Yusuf Meherally Rd., Bombay 400003.

Packaging Mfrs. Forum, All India Flexible, 904-B, Surya Apartments, 53, Warden Rd., Bombay 400026.

Paint and Allied Industries Assocn., All India Small Scale, 310, Arun Chambers, Tardeo Rd., Bombay 400034.

Paint Assocn., Indian, C/o Bombay Chamber of Commerce & Ind., Mackinnon Mackenzie Bldg., B. Estate, Bombay 400038.

Paper & Allied Products Mfrs. Assocn., All India, Vaswani Mansion, 120, D. Vachha Rd. Bombay 400020

Paper Mills of India, Fedn. of Small, 213, Udyog Bhavan, 7/C, Pitamber Lane, Mahim, Bombay 400016.

Paper Traders' Assocn., 54, Sutar Chawl, Bombay 400002.

Paper Traders' Assocn. of India, Fedn. of, Commerce House, 140, N Master Rd., Bombay 400023.

Pearl Dealers' Assocn., Genuine, 82/86, Abdul Rehman St., Bombay 400003.

Pepper and Ginger Merchants' Assocn. Ltd., 332-34, Narsi Natha St. Bombay 400009.

Pest Control Assocn., Indian, Puribai Smruti Bldg., 47/49, Mint Rd., Bombay 400001.

Pesticides, Assocn. of Basic Manufacturers of, Express Towers, 19th Flr., N. Point, Bombay 400021.

Pesticides Assocn. of India, Ralli House, Ravelin St., Bombay 400001.

Petroleum Products Importers Assocn., All India, C/o H. J. Leach & Co., Asian Bldg., Nicol Rd., Ballard Estate, Bombay 400038.

Petroleum Specialities, Assocn. of Mfrs. of, C/o N. K. Mehra, Mg. Dir., Savita Chemicals Pvt. Ltd., Commissariat Bldg., 231, Dr. D. N Rd., Bombay 400001.

Pharmaceutical and Allied Mfrs.' and Distributors' Assocn. Ltd., Mackinnon Mackenzie Bldg., B. Estate, Bombay 400038.

Pharmaceutical Assocn., Indian, Kalina, Santa Cruz (East), Bombay 400029.

Pharmaceutical Products of India, Organisation of, Cook's Bldg., Dr. D. Naoroji Rd., Bombay 400001.

Photographic and Allied Trades Assocn. Ltd., Western India, Mangrol Mansion, 6, Gunbow St., Bombay 400001.

Pipes and Fittings Merchants' Assocn., Bombay, 84, Nagdevi St., Bombay 400003.

Plastic Machinery Mfrs. Assocn., All India Small Scale, C/o Foranco, National House, 6, Tulloch Rd., Bombay 400039.

Plastic Pipes and Fittings Mfrs. Assocn., Small Scale, National House, 6, Tulloch Rd., Bombay 400039.

Plastics Mfrs. Assocn., All India, Jehangir Bldg., M. Gandhi Rd., Bombay 400023.

Polyester Staple Fibre Mfrs., Assocn. of, Mittal Chambers, 228, Nariman Pt., Bombay 400021.

Polymers Mfg. Industries Assocn., 5, Jyoothika Mukrand Socy., Cadell Rd., Bombay 400016.

Polythene Layflat Tubing Mfrs. Assocn., All India Small Scale, 116, Sarang St., Bombay 400003

Powerloom Industries Assocn., 12, Rampart Row, Bombay 400023.

Press Owners' Assocn., Bombay, 196B, Gaiwadi, Bombay 400004.

Printers, All India Fedn. of Master, C/o Bombay Samachar Ltd., Horniman Circle, Bombay 400023.

Printing Materials & Ink Dealers Assocn., C/o Gandhi Stationery Mart, 178, Bazar Gate St., Bombay 400001.

Produce Exporters' Assocn., Indian, 76, Sheriff Devji St., Bombay 400003.

Productivity Council, National, Novelty Chambers, Grant Rd., Bombay 400007.

Publications Assocn., Specialised, 235, Dr. D. Naoroji Rd., Bombay 400001.

Publishers' and Booksellers' Assocns. in India, Fedn of, C/o India Book House Pvt. Ltd., Rusi Mansion, 29, Nathalal D. Parikh Mrg., Bombay 400039.

Pump Mfrs.' Assocn., Indian, 105, Kakad Chambers, 132, Dr. A. Besant Rd., Bombay 400018.

Radio Advertisers & Producers Assocn. of India, 305, Neelam, Worli, Bombay 400018.

Radio Electronic and Television Mfrs.' Assocn., Wavell House, B. Estate, Bombay 400038.

Radio & Electronics Assocn., All India, Sukh Sagar, N. S. Patkar Mrg., Bombay 400007.

Refrigeration and Air Conditioning Traders Assocn. Ltd., C/o Bombay Cycle & Motor Agency Ltd., 534, Sardar V. Patel Rd., Bombay 400007.

Roller Flour Millers Assocn, Maharashtra, C/o Maharashtra Chamber of Commerce, 12, Rampart Row, Bombay 400023.

Rubber Industries Assocn., All India, Navjivan Socy. Bldg., Lamington Rd., Bombay 400008.

Safety Appliances Mfrs. Assocn., 11/43, Tamarind St., Bombay 400023.

Salt Mfrs.' Assocn., Indian, Tanna House Annexe, 11-A, Nathalal D. Parikh Marg, Bombay 400039.

Sanitaryware Assocn., Bombay, 8/10, Green St., Bombay 400023.

Screen Printers & Processors Assocn., Bombay, Neelam, Plot No. 108, Worli Sea Face, Bombay 400018.

Shipowners' Assocn., Indian National, 22, Maker Tower F, 2nd Flr., Cuffe Parade, Bombay 400005.

Shippers Assocn., Western India, C/o Indian Merchants Chamber, 76, Veer Nariman Rd., Bombay 400020.

Shoddy Mills Assocn., Indian, C/o Simplex Wollen Mills, Sadhana Rayon House, Dr. D. Naoroji Rd., Bombay 400001.

Shroffs' Assocn. Ltd., Bombay, 233, Shroff Bazar, Bombay 400002.

Shuttle Mfrs.' Assocn., C/o Acme Bobbins & Shuttles Pvt. Ltd., 315, S. Veer Savarkar Mrg., Bombay 400028.

Silk & Art Silk Mills' Assocn. Ltd., Resham Bhavan, 78, V. Nariman Rd., Bombay 400020.

Silk Merchants' Assocn., Dahanukar Bldg., Kalbadevi Rd., Bombay 400002.

Soap Mfrs.' Assocn., Non-Power, Sabun Bhavan, 187, Sheriff Devji St., Bombay 400003.

Solvent Extractors' Assocn. of India, Jolly Maker Chambers No. 2, Nariman Pt., Bombay 400021.

Spg. Mills' Fedn., Ltd., Maharashtra State Co-op. Vakil House, 2nd Flr., 18, Sprott Rd., B. Estate, Bombay 400038.

Spg. Mills Ltd., All India Fedn. of Co-op. 14 Marzban Rd., Bombay 400001.

Spring Mfrs.' Assocn. of India, All India, C/o Bombay Chamber of Commerce & Ind., Mackinnon Mackenzie Bldg., B. Estate, Bombay 400038.

Stainless Steel Industries Assocn., All India, Arun Chambers, Tardeo Main Rd., Bombay 400034.

Stainless Steel Merchants' Assocn., 29C, Sarvodaya Nagar, Panjrapole, Bombay 400004.

Stainless Steel Re-Rollers Assocn., 418, Loha Bhavan, P. D'Mello Rd., Bombay 400009.

Starch Mfrs.' Assocn. (Pvt.) Ltd., All India, 159, Colaba Rd., Bombay 400005.

Stationers Assocn., Bombay, 237, Abdul Rehman St., Bombay 400003.

Stevedores, Fedn. of Assocns. of, Janmabhoomi Chambers, Fort St., Bombay 400001.

Stock Exchange, Dalal St., Bombay 400023.

Sugar Factories' Assocn., Deccan, Stadium House, Block No. 2, Veer Nariman Rd., Bombay 400020.

Sugar Merchants' Assocn. Ltd., Bombay, Ahmedabad St., Bombay 400009.

Sugar Mills Assocn., Indian, 5, Convent St., Bombay 400039.

Synthetic Fibre Industry, Assocn. of, Raj Mahal, 84, Veer Nariman Rd., Bombay 400020.

Tank Lorry Owners' Assocn., G. R. Master Bldg., Sewree Cross Rd., Bombay 400015.

Tarpaulin Merchants' Assocn., Bombay, 297, Narsi Natha St., Bombay 400009.

Technical Entrepreneurs Assocn., All India, National House, 6, Tulloch Rd., Bombay 400039.

Textile Assocn. (India), 72A, Shivaji Park Corner Rd., Bombay 400028.

Textile and Engineering Assocn., Bombay, 343, Sattar Bldg., Grant Rd., Bombay 400007.

Textile Machinery Mfrs.' Assocn., 53, Mittal Chambers, Nariman Point, Bombay 400021.

Textile Processors' Assocn. (India), 414, Senapati Bapat Marg, Bombay 400013.

Textile Stores and Machinery, India, Assocn. of Merchants and Mfrs. of, C/o B. Mehta & Co., Union Bank Bldg., 66/80, Bombay Samachar Mrg. Bombay 400023.

Timber Merchants' Assocn. Ltd., Bombay, 67, Victoria Rd., Mustafa Bazar, Bombay 400010.

Tobacco Merchants' Assocn. Ltd., Indian, 184, Clive St., Bombay 400009.

Toy Mfrs.' Assocn., All India, 4, Meher Bldg., Chowpatty, Bombay 400007.

Tractor, Earthmoving and Construction Equipment Distributors' Assocn. Ltd., Mackinnon Mackenzie Bldg., B. Estate, Bombay 400038.

Trade Fairs & Exhibitions, Indian Council of, Jhansi Castle, Cooperage Rd., Bombay 400039.

Trade and Industry, Assocn. of Indian, Bombay Mutual Chambers, Hamam St., Bombay 400023.

Trade Mark Owners Assocn. of India, Army & Navy Bldg., M. Gandhi Rd., Bombay 400023.

Trade & Technical Publications Assocn., 12, Fort Chambers, Hamam St., Bombay 400023.

Travel Agents Assocn. of India Ltd., 35, Anjali, Behind Radio Club, Arthur Bunder Rd., Bombay 400005.

Tyre Dealers' Assocn., Bombay, Nav Sanket Apartments, Navroji Hill Rd., Bombay 400009.

Vanaspati Mfrs.' Assocn. of India, Harilela House, Mint Rd., Bombay 400001.

Vegetable Oil Assocn. of India, Anna Bhavan, 87-C, D. Rattansey Marg., Bombay 400009.

Watch Dealers' Syndicate, Bombay, 78, Abdul Rehman St., Bombay 400003.

Watch Importers Assocn., C/o Express Watch Co., 78, Abdul Rehman St., Bombay 400003.

Watch Straps Mfrs.' Assocn., All India, Empire Bldg., Dr. D. Naoroji Rd., Bombay 400001.

Watch Trade Fedn., Court Chambers, 35, New Marine Lines, Bombay 400020.

Wires Mfrs. Assocn. of India, Winding, B-1/3, Sea Lord, Cuffe Parade, Bombay 400005.

Woollen Mills Fedn., Indian, Churchgate Chambers, 5, New Marine Lines, Bombay 400020.

Yarn Merchants' Assocn. and Exchange Ltd., Bombay, Bombay Yarn House, Nakhoda St., Bombay 400003.

X-Ray & Electro-Medical Traders' Assocn., All India, Fazalbhoy Bldg., 45, M. Gandhi Rd., Bombay 400023.

CULTURAL, RELIGIOUS AND SOCIAL

Adoption, Indian Assocn. for Promotion of, Mathuradas Bldg., II Flr., 43/45, Shahid Bhagat Singh Rd., Colaba Causeway, Bombay 400039.

Aga Khan's Khoja Shia Imami Ismaili Council, H. H., Khoja Jamat Khana, Khadak, Bombay 400009.

Ambulance Assocn., Popular, J. Dadajee Rd., Bombay 400007.

Ambulance Assocn., St. John, 141, Bhagat Singh Rd., Bombay 400023.

Ambulance Corps, Bombay City, 21, New Marine Lines, Bombay 400020.

Ambulance Socy., Muslim, 154, Kambekar St., Bombay 400003.

American Cultural Centre, 4, New Marine Lines, Bombay 400020.

Andhra Mahasabha (Regd.), Bombay, Opp. King George High School, Lakhamsi Nappoo Rd., Bombay 400019.

Animal Welfare Assocn., All India, 394A, Bhaudaji Rd., Bombay 400019.

Animals, Socy. for the Prevention of Cruelty to, Hospital Rd., Bombay 400012.

Arab Cause, Indian Committee for, Ist Lady Jamshedji Cross Rd., Bombay 400016.

Arya Samaj, Kakadwadi, V. Patel Rd., Bombay 400004.

Asiatic Socy. of Bombay, Town Hall, Bombay 400023.

Assistance, Rehabilitation, Relief & Aid, Maharashtra (Sarram), Socy. for, C/o Hindustan Standard, United Bank of India Bldg., Sir P. Mehta Rd., Bombay 400001.

Astrological Research Centre, 3, Benny's Cot, Bhaudaji Rd., Matunga, Bombay 400019.

Ayappa Seva Sangam Bombay, (Regd.), P.O. Box No. 7504, 185, Bangur Nagar, Goregaon, Bombay 400062.

Balkan-Ji-Bari (All India Office), Balkan-Ji-Bari Bldg., Juhu Rd., Bombay 400054.

Balkan-Ji-Bari—Child Welfare Assocn. of India, 'Gulistan', 12th Rd., Khar, Bombay 400052.

Balkan-Ji-Bari (Maharashtra State), 43, Tamarind Lane, Bombay 400001.

Balkan-Ji-Bari, Prafulla Nivas, Shastri Mrg., Ghatkopar, Bombay 400077.

Balkan-Ji-Bari, 107, Aram Nagar, J. Prakash Rd., Versova, Bombay 400058.

Bapnu Ghar, 12A, A. Besant Rd., Bombay 400018.

Bhagini Samaj, 225, N. Desai Rd., Bombay 400004.

Bhagvad Gita Pathashala, Shrimad, Madhav Baug, Bombay 400004.

Bharat-Mauritius Friendship Socy., 7/98, Azad Nagar, J. P. Rd., Bombay 400058.

Bharatiya Samaj, Shri Brihad, N. K. M. International House, 178, Backbay Reclamation, Bombay 400020.

Bible Socy. of India and Ceylon, India House, Opp. G.P.O., Fort St., Bombay 400001.

Billawar Assocn., 64/75, Modi St., Bombay 400001.

Brahmin Assocn., Bombay South Kanara, 273, Sion Matunga Estate, Bombay 400022.

British High Commission—British Council Division, French Bank Bldg., Homji St., Bombay 400001.
Library: N. K. Mehta International House, 178, Backbay Reclamation, Bombay 400020.

Cactus and Succulent Socy., 11/168, "Padmalaya", Matunga Rd., Wadala, Bombay 400031.

Cancer Patients Aid Assocn., 5, India House, Opp. G.P.O., Bombay 400001.

Carmel Socy., Bombay, 271, Carter Rd., Bombay 400050.

Cheshire Home, Bombay, Bethlehem House, Mahakali Caves Rd., Bombay 400058. The Cheshire Homes are for the incurably sick and homeless.

Child Welfare, Maharashtra State Council for, 'Shivneri' Annexe, A. G. Bell Marg, Bombay 400006.

Children Socy., Friends of, Advent, 31, Gen. Bhonsle Mrg., Bombay, 400021.

Children's Aid Socy., 83, Lady Hardinge Rd., Mahim, Bombay 400016.

Children's Film Socy. (India), Films Dn. Complex, 24, Dr. G. Deshmukh Mrg., Bombay 400026.

Children's National Foundation, Kamani Chambers, R. Kamani Mrg., Ballard Estate, Bombay 400038.

Chinmaya Mission, Sandeepany Sadhanalaya, Vihar Rd., Bombay 400076.

Community Aid & Sponsorship Programme (CASP), 175, Dr. D. Naoroji Rd., Bombay 400001. A national voluntary social welfare agency rendering services and assistance to the needy handicapped school-going children & also to distressed communities, in kind and cash.

Crafts Council of Western India, Akash Ganga, Bhulabhai Desai Rd., Bombay 400036. Dedicated to the advancement of crafts in W. India.

Cultural Freedom, Indian Assocn. for, 148 M. Gandhi Rd., Bombay 400023.

Cultural Organisations of Bombay, Fedn. of, Akash Ganga, 89, Bhulabhai Desai Rd., Bombay 400036.

Cultural Relations, Indian Council for, Hem-Prabha, Subhas Rd., Bombay 400020.

Depressed Classes Mission Socy. of India, 112, Nagindas Master Rd., Bombay 400023.

Dharma Socy., Rashtra, Ganga Nivas, 234, Walkeshwar Rd., Bombay 400006.

Diocesan Council, Bombay, 19, Waudby Rd., Bombay 400001.

Divine Life Society, Nagindas Chambers, 2nd Flr., 167, P. D'Mello Rd., Bombay 400038.

Dock Labour Board, Bombay, Krupanidhi, 9, W. H.Mrg., B. Estate, Bombay 400038.

Family Planning Assocn. of India, Bajaj Bhawan, Nariman Pt., Bombay 400021. Has 41 branches plus 15 rural integrated projects. Activities include edn. & service for family plng., MCH; trg. of medical & field personnel; research; programmes in population, sex & family life edn. for youth & women's devpt. programmes. Affiliated to the Intnl. Planned Parenthood Fedn. *Pres.:* Smt. Avabai B. Wadia.

Film Societies of India, Fedn. of, 421, Hind Rajasthan Centre, D. S. Phalke Rd., Bombay 400014.

Free Enterprise, Forum of, Piramal Mansion, 235, Dr. D. Naoroji Rd., Bombay 400001.

"Gate of Mercy" Synagogue, 254, Samuel St., Bombay 400003.

"Giants International" (Voluntary Service Orgn.), Orient Club, Chowpatty Sea Face, Bombay 400007.

Gowrakshak Mandali, Bombay, Fanaswadi, S. Podar Rd., Bombay 400002

Guruvayurappan Bhakta Samaj, Bomaby (Regd.), Shree, 1, Swastik Bldg., 151, Wadala, Bombay 400031.

Hariharaputra Bhajan Samaj (Regd.), Shree, 6, 'Brindavan', 3rd Rd., Chembur, Bombay 400071.

Hospitality Committee, Bombay, 2-B, Mistry Court, 208, Dinshaw Vachha Rd., Bombay 400020. To bring about closer contacts amongst various nationalities of Bombay; to foster friendship & cordial understanding between the people of Maharashtra & adjoining States; to work for national unity, solidarity, internal amity, peace and national integration.

Hospitality Orgn., Maharashtra Intnl., Kamani Chambers, Nicol Rd., B. Estate, Bombay 400038.

Housing Finance Society Ltd., Maharashtra Co-op., 7, New Marine Lines, Bombay 400020.

Humanitarian League, Bombay, 123, Mumbadevi Rd., Bombay 400003.

India-Pakistan Assocn., Mistry Court, 208, D. Vardha Rd., Bombay 400020.

India-South-East Asia Friendship Socy., Dadysett House, 44, Cawasji Patel St., Bombay 400001.

Indian Culture, Academy of, 2, 'Orion', Omer Park, B. Desai Rd., Bombay 400026.

Indo-American Socy., Kitab Mahal, 5, Raveline St., Bombay 400001.

Indo-Arab Friendship Assocn., 512, Jolly Bhavan No. 1, 10, New Marine Lines, Bombay 400020.

Indo-Arab Socy., 12, Nagin Mahal, Veer Nariman Rd., Bombay 400020

Indo-Australian Socy., 2-B, Mistry Court, 208, Dinshaw Vachha Rd., Bombay 400020.

Indo-Canadian Friendship Socy., 2-B, Mistry Court, 208, Dinshaw Vachha Rd., Bombay 400020.

Indo-Fiji Cultural Assocn., 12, Colaba Chambers; Wodehouse Rd., Bombay 400005.

Indo-GDR Friendship Assocn., C/o Purshottam Mathradas & Co. P. Ltd., 23, Sir P. M. Rd., Bombay 400001.

Indo-German Cultural Centre, Max Mueller Bhavan., Prince of Wales Museum Annexe, Bombay 400039.

Indo-German Cultural Socy., Lansdowne House, Lansdowne Rd., Bombay 400039.

Indo-Japanese Assocn., 12, Rampart Row, Bombay 400023.

Indo-Malaysia Friendship Assocn., Dadysett House, 44, Cawasji Patel St., Bombay 400001.

Indo-Mauritius Socy., Ionic A2, Near Telephone Bhavan, Bombay 400005.

Indo-Scandinavian Assocn., 1st Lady Jamshedji Cross Rd., Bombay 400016.

Indo-Soviet Cultural Socy., Syndicate Bank Bldg., Sir P. Mehta Rd., Bombay 400001.

Indo-Swiss Socy., Cama Instt. Bldg., 136, Apollo St., Bombay 400023.

International Co-opn., Indian Council of, 12, Colaba Chambers Wodehouse Rd., Bombay 400005.

Iran League, Navsari Bldg., 240, Dr. D. Naoroji Rd., Bombay 400001.

Ismailia Assocn. for India, Karimabad, Imamwada Rd., Bombay 400009.

Ismailia Helping Socy., 65, J. B. Shah Marg, Bombay 400009.

Jain Assocn. of India, C/o Mahavira Jain Vidyalaya, August Kranti Marg, Bombay 400036.

Jeejeebhoy Parsee Charitable Insttn., Byramjee, 33, Karve Marg, Bombay 400004.

Kannada Sangha (Regd.), Bombay, 2, Venkatesh Nivas, Bhaudaji Rd., Matunga Bombay 400019.

Keraleeya Samaj, Bombay, "Kerala Bhavanam", K. A. Subramanian Rd., Matunga, Bombay 400019.

Krishna Consciousness, Intnl. Socy. for, Hare Krishna Land, Juhu, Bombay 400049.

Kusht Nivaran Sangh, Hind, Red Cross Office, 141, S. Bhagat Singh Rd., Bombay 400023.

Labour Bureau, Bombay, Krishna Niketan, Sonawala Rd., Bombay 400063.

Labour Welfare Board, Maharashtra, Jambori Maidan, Worli, Bombay 400018.

Legal Aid Socy., Free, Hamam House, Hamam St., Bombay 400001.

Legal Aid Society for Destitute Women, Maratha Mandir, Bombay 400008.

Mahila Arthik Vikas Mandal Ltd., Near Yogakshema, Cama Rd., Bombay 400032.

Mahilashram, Shradhanand, King's Circle, Matunga, Bombay 400019.

Mai Adherents' Instt., Mai Niwas, Saraswati Rd., Santa Cruz West, Bombay 400054. An instt. of brothers & sisters for the propitiation of God as Universal Mother, through Universal love & service.

Marwadi Sammelan, 111-B, Jayakar Marg, Bombay 400002.

Moral and Social Hygiene, Assocn. for, Barrack No. 4, Dinshah Vachha Rd., Bombay 400020.

Mothers and Children Welfare Socy., Bombay, No. 10, B.D.D. Chawl, M. N. Joshi Mrg., Bombay 400011.

Mothers' Lineage, Socy. for the Cause of, Plot No. B-2, R-105, Theosophical Colony, Juhu, Bombay 400054.

Music and Arts Socy., Bharatiya, Plot H, Bhaudaji Rd. Extn., Bombay 400022.

Mysore Assocn., 393, Bhaudaji Rd., Matunga, Bombay 400019.

Nagpada Neighbourhood House, Sophia Zuber Rd., Byculla, Bombay 400008. *Activities:* Medical & Family Plng. Clinics, Children's Welfare Centre, Emp. Bureau, Working Men's & Women's Hostels, Library, Creche, Child Guidance Clinic, Craft Sales Centre, Guest House, Home Science Classes, Youth Club, Urdu, Music, Typing & Dancing classes; Boxing and Karate classes; Table Tennis, Gymnasium, Carrom and Basket Ball.

Nehru Centre, Sterling Centre, 7th Flr., Dr. A. Besant Rd., Worli, Bombay 400018.

Objects: Promotion of art, culture, history, science & technology through various methods. The Centre mainly started its activity with Nehru Planetarium in 1977. The Planetarium with its daily sky-theatre shows, which combine entertainment with instruction, provide a new experience in cosmic awareness. It has become a great crowd puller and a significant place of tourist attraction. Discovery of India Hall will be commissioned shortly. It will be a museum of science, history, culture & arts of India. The Centre is also starting soon *Science Age* (monthly) for popularising science and disseminating scientific knowledge for the benefit of science students and lay persons.

Nepal Friendship Socy., Bharat, Nepal Traders Agency, 95, Bhandari St., Bombay 400003.

Noise Abatement League, C/o Dr. V. V. Gupte, 19, Sir P. Mehta Rd., Bombay 400001.

North India Assocn., Behind King's Circle Rly. Stn., Off Sion Rd., Bombay 400022.

Panjrapole, Bombay, Bhuleshwar, Bombay 400004.

Passengers' and Traffic Relief Assocn., Anand Bhavan, 346, Dr. D. Naoroji Rd., Bombay 400001.

Peace & Solidarity Organisation, All India, 55, R. L. Trust Hostel, Opera House, Bombay 400004.

Prarthana Samaj, Girgaum, Bombay 400004.

Probation & Aftercare Assocn., Maharashtra State, 15, BIT Block, King's Circle, Bombay 400019.

Property Owner's Assocn., Bansilal Mansion, 11, Homi Mody St., Bombay 400023.

Punjab Assocn., 418, Loha Bhavan, P. D'Mello Rd., Bombay 400009.

Raghavendra Swami Ashram, Shri Guru, 'Guru Ashram', Raghavendra Nagar, Oshiwara, Jogeshwari West, Bombay 400102.

Railway Passengers Conference Assocn., Indian, 23, Bell Building, Sir P. Mehta Rd., Bombay 400001.
Assistance to railway passengers in their dealings with the Railways with regard to their obligations to each other; restoration of run-away boys to their parents; elimination of crimes on Railways against the person and property of railway passengers; education among railway servants and railway police personnel to discourage corrupt practices. Publishers of *Rail News,* English fortnightly. *Pres.,* C. B. L. Bhatnagar.

Ramakrishna Mission Ashram, Khar, Bombay 400052.

Ranjan Sandhya International Organisation, 32, Nicol Rd., Kamani Chambers, B. Estate, Bombay 400038.
Devoted to social, cultural activities and peace & friendship through intnl. relations.

Ratan Tata Instt., Sir, 35, S. Patkar Rd., Bombay 400007.
The Institute helps to partially solve the problem of poverty and distress among Parsee families from the lower income groups, by encouraging women to earn a living through suitable employment.

Red Cross Socy., Indian (Maharashtra State Branch), 141, Bhagat Singh Rd., Bombay 400023.

Relief Association, Bombay, Cook's Bldg., Dr. D. Naoroji Rd., Bombay 400020.

Religious Amity Centre, Mistry Court, 208, D. Vachha Rd., Bombay 400020.

Religious of Mary Immaculate, Regina Pacis, Seth Motishah Lane, Victoria Gardens, Bombay 400027.
1. Club & Emp. Bureau for Houseworkers. 2. Home for destitute children. 3. Hostel for working girls. 4. Day & Night school till SSC for girls of the 'Home' & other too.

Retarded, Socy. for the Vocational Rehabilitation of the, 298, S. Gandhi Mrg., Bombay 400002.

Sadhu Sangam, Akhil Bharata, 1, Swastik Bldg., 1-151, Rd. No. 9, Wadala, Bombay 400031.

Safety Council, National, Central Labour Instt. Bldg., Sion, Bombay 400022.

Safety First Assocn. of India, Stadium House, Veer Nariman Rd., Bombay 400020.

Sai Baba Sansthan Shirdi, Shri, Sai Niketan, Ambedkar Rd., Bombay 400014.

Sai Samasthan, Sri Bhagawati, RB11-92 4, Central Rly. Colony, Kurla East, Bombay 400024.

Salesian Socy., Bombay, Don Bosco, Matunga, Bombay 400019.

Sankara Mattham, Sri, Telang Rd., Matunga, Bombay 400019.

Sanshodhan Mandal, Marathi, Mumbai Marathi Grantha Sangrahalaya, 172, Naigaum Cross Rd., Bombay 400014.

Satya Sai Samiti, Shri, Dharmashetra, Mahakali Caves Rd., Andheri (East), Bombay 400069.

Scottish Orphanage Socy., Bombay, Savarkar Mrg., Bombay 400016.

Scouts and Guides, Bharat, Scout Guide Bhavan, Marine Lines, Bombay 400020.

Sea Cadet Corps, T. S. "Jawahar", Pilot Bunder Rd., Bombay 400005. A Voluntary Youth Orgn. recognised by an Act of the Parliament giving the Corps the privilege of using the BLUE ENSIGN has been rendering yeoman service to the nation for trg. the youth for 45 years now. Its National Hqrs. Trg. Ship JAWAHAR, Pilot Bunder Road, Colaba, Bombay 400005, has now been supplemented by acquisition of Rupees four million Sail Trg. Ship- Square Rigger. The Sail Trg. Ship VARUNA commissioned on April 20, 1981 has been on trg. cruises to Goa, Cochin and the historic goodwill cruise to Colombo besides trg. during weekends along Maharashtra coast. The Corps has units at Ootacamund, Cochin, Madras, Visakhapatnam & Calcutta. The cadets get sea trg. and such other trg. as will develop in them qualities of good citizenship and patriotism and to help boys wishing to make their career at sea achieve their ambition.

Servants of God, Socy. of, Mayfair, 34, Little Gibbs Rd., Bombay 400006.

Servants of India Socy., Sardar V. Patel Rd., Bombay 400004.

Seva Sadan, Gamdevi, Bombay 400007.

Sevak Samaj, Bharat, Narandas Bldg., Sprott Rd., B. Estate, Bombay 400038.

Seventh-Day Adventists, Central India Union of, 16, Club Rd., Bombay 400008.

Shanmukhananda Fine Arts and Sangeetha Sabha, Shri, 292, Flank Rd., Bombay 400022.

Shareholders' Assocn., Bombay, 56, Dalal St., Bombay 400023.

Sindhi Panchayats Fedn., All India, Khorshed Bldg., Ist Flr., Sir P. Mehta Rd., Bombay 400001.

Social Hygiene Council, Bombay, 10, Indian Mercantile Mansion, Opp. Regal Cinema, Bombay 400039.

Social Welfare, Indian Council of, *Central Office:* 175, D. Naoroji Rd., Bombay 400001.

Social Welfare, International Council of, Regnl. Office for Asia & W Pacific Regn.: 175, Dr. D. Naoroji Rd., Bombay 400001.

Social Welfare Socy., Khorshed Bldg., Sir P. Mehta Rd., Bombay 400001.

Soviet Culture, House of, 31-D, Deshmukh Mrg., Bombay 400026.

Sur-Singar Samsad, Arun, Narayan Dabholkar Rd., Bombay 400006.

St. Vincent De Paul, Socy. of, Eucharistic Congress Bldg., 5, Convent Rd., Bombay 400039.

Swastik League, 324-A, Vithalbhai Patel Rd., Bombay 400004.

Tamil Sangham, Sion Rd., Bombay 400022.

Taxpayers' Assocn. of India, Fort Chambers, A. Dean Lane, Bombay 400001.

Telephone Subscribers' Assocn., All India, Bell Bldg., Sir P. Mehta Rd., Bombay 400001.

Tenants Assocn., Bombay, 143, Kannamwar Nagar, Bombay 400078.

Theosophical Socy., Blavatsky Lodge, French Bridge, Bombay 400007.

Theosophists, United Lodge of, 40, New Marine Lines, Bombay 400020.

Trees, Friends of the, 148, M. Gandhi Rd., Bombay 400023.

United Kingdom Citizens' Association, Cook's Bldg., Dr. D. Naoroji Rd., Bombay 400001.

Vanita Samaj, Bharatiya, Nair Mahal, Tulsi Pipe Rd., Bombay 400016.

Vanita Vishram, Sardar V. Patel Rd., Bombay 400004.

Vedanta Life Instt., 1A, Lands End, Doongarsi Rd., Bombay 400006.

Vigilance Assocn., Bombay, 126, Dadasaheb Phalke Rd., Bombay 400014. *Objects: (a)* To render assistance to the abandoned, destitute, neglected and victimised girls & women; *(b)* to rescue girls and women in moral danger; *(c)* to prevent cruelty to girls and women. It also maintains a shelter for neglected and destitute girls between 5 & 12 years of all communities.

Visva Yoga Bharati, Vallabhnagar, Borivli, Bombay 400092.

Waddar Samaj Sangh (Regd.). Akhil Bharat. 16. Everest Housing Socy.. Shakar Nagar. Chembur. Bombay 400071. To promote the interests of weaker sections of several communities in general and Waddar community in particular. Has State units.

Women's Council. Maharashtra State. Town Hall. Bombay 400023.

World Affairs. Indian Council of (Bombay Branch). C/o Godrej Bhavan. Home St.. Bombay 400001

World Future Socy., Urban Systems Centre. NITIE. Bombay 400087.

Yoga Institute. Santa Cruz. Bombay 400055

Yoga Socy.. Friends of. Sunbeam. S. V. Rd.. Jogeshwari. Bombay 400060.

Yogic Self-Culture Socy., 5. Vallabhnagar. Borivli. Bombay 400092.

Young Men's Christian Assocn., YMCA International House. Club Back Rd.. Bombay 400008.

Young Men's Hindu Assocn., 141. V. Patel Rd.. Bombay 400004.

Young Women's Christian Assocn., 18. Cama Rd.. Bombay 400020.

Zoroastrian Assocn., 16. Horniman Circle. Bombay 400023.

PROFESSIONAL. MEDICAL AND SPORTS

Acupuncture Assocn.. Indian Medical, 170. Shivaji Park. Bombay 400028.

Adi Dravida Mahajana Sangh. Bombay S. Indian, 10. Agasawadi. Bombay 400017.

Advocates' Assocn.. Bombay, Small Causes Court. Dhobi Talao. Bombay 400002.

Aeronautical Socy. of India. C/o Air India. Technical Bldg.. Old Airport. Bombay 400029.

Agricultural Economics, Indian Socy. of, Esplanade Mansions. M. Gandhi Rd.. Bombay 400023.

Agricultural Engineers. India Socy. of, 7. Neel Tarang. 208. Savarkar Mrg.. Bombay 400016.

Agri-Horticultural Socy., Bharatiya Vidya Bhavan. 4th flr.. K. M. Munshi Mrg.. Bombay 400007.

Andrology. Bombay Socy. for, C/o Dean. K.E.M. Hospital. Parel. Bombay 400012.

Angling Assocn.. Maharashtra State, Club House, Powai Lake, Bombay 400070.

Anthropological Socy. of Bombay, C/o K. R. Kama Oriental Library. 136. Apollo St.. Bombay 400023.

Architects, Indian Instt. of, Prospect Chambers Annexe. Dr. D. Naoroji Rd.. Bombay 400001

Architects & Surveyors (London). Incorporated Assocn. of (India Branch). 24-26. Dalal St.. Bombay 400023.

Art. Socy., Bombay, Jehangir Art Gallery. Bombay 400039.

Ayurved Prachar Sanstha, Ayurved Coll. Bldg.. Subhas Rd.. Bombay 400002. Promoting public health and relieving ailments by ayurvedic & other systems of medicine

Ayurvedic and Unani Systems of Medicine, Maharashtra Board of, 144. M. Gandhi Rd.. Bombay 400023.

Badminton Assocn., Maharashtra State, Brabourne Stadium (North Stand). Bombay 400020

Bank Depositors' Assocn., All India, C/o Forum of Free Enterprises. 235. Dr. D. Naoroji Rd.. Bombay 400001

Bar Council of Maharashtra, High Court Extn., Bombay 400032.

Basketball Assocn., Maharashtra State, 10 200. Kailas Kunj. Wadala. Bombay 400031.

Billiards Assocn., Maharashtra State, C/o Islam Gymkhana. Subhas Rd.. Bombay 400002.

Bioscientific Assocn., Indian, Instt. of Science. Madame Cama Rd.. Bombay 400032.

Bridge Assocn., Bombay Contract,—Bridge Association, Maharashtra, C/o Sectt. of Bombay Sporting Assns.. Brabourne Stadium (North Stand). Bombay 400020

Bridge Fedn. of India, Brabourne Stadium (North Stand). Bombay 400020.

Cancer Socy., Indian, Dr. E. Borges Mrg.. Parel. Bombay 400012. Scientific investigation of the cause, prevention & control. public and professional edn. in latest methods of detection. diagnosis & treatment of Cancer: sponsoring of research: establisment of detection centres throughout India. establishing intnl. co-opn. in research, encouraging visiting professorships. awarding scholarships & fellowships in Cancer Cytology. Chemotherapy & Rehabilitation; giving relief & rehabilitation to indigent Cancer patients: establishing population-based Cancer Registries; undertaking public edn. in the facts about Cancer by various means including Cancer exhibitions. films & T.V. shorts, etc. Publication: *The Indian Journal of Cancer*—Quarterly. *Founder-Secy. & Mg. Trustee*, Dr. D. J. Jusawalla.

Cardiological Socy. of India, C/o Dr. B. K. Goyal. Lotus Chambers. New Marine Lines. Bombay 400020.

Chartered Accountants of India, Instt. of (W. Regnl. Council), 27. Cuffe Parade. Bombay 400005.

Chartered Accountants Socy., Bombay, 69-71. Ghoga St., Bombay 400001.

Chemical Socy., Indian (Bombay Branch). Institute of Science. Cama Rd.. Bombay 400032.

Chess Assocn., Bombay, C/o Zandu Pharmaceutical Works Canteen, Gokhale Rd. South, Bombay 400028.

Clean Environment, Socy. for, Garden Resort. 606. Sion-Trombay Rd.. Chembur. Bombay 400071.

Commercial Artists' Guild, India House. 4th Flr.. Fort St.. Bombay 400001.

Company Secretaries of India, Instt, of, Jolly Maker Chambers No. 2. Nariman Pt., Bombay 400021.

Computer Socy. of India, C/o Instn. of Engineers Bldg.. 15. Haji Ali Park. K. Khadye Mrg.. Bombay 400034.

Consumer Guidance Socy. of India, Hutment J.. Mahapalika Marg. Bombay 400001.

Consumers Co-op. Fedn. Ltd., Maharashtra, Raj Chambers. 3rd Flr.. 87-A. Broach St.. Bombay 400009.

Consumers Fedn. Limited, National Co-op., Suresh Bhavan. Chowpatty. Bombay 400007.

Co-op. Union, Maharashtra State, 1. Bank St.. Bombay 400023.

Costs and Works Accountants of India, Instt. of, Rohit Chambers. Ghoga St., Bombay 400001.

Cricket Assocn., Bombay, Wankhede Stadium. Bombay 400020.

Cricket in India, Board of Control for, Brabourne Stadium. North Stand. Churchgate. Bombay 400020.

Dental Council, Maharashtra State, Swadeshi Mills Estate. M. Parmanand Marg. Bombay 400004.

Diabetic Assocn. of India, Maneckji Wadia Bldg.. 127. M. Gandhi Rd.. Bombay 400023.

Electrocardiology, Indian Socy. of, C/o Dr. P. N. Kelkar. Deptt. of Cardiology. L.T.M.G. Hospital. Bombay 400022.

Electronics & Telecommunication Engrs., Insttn. of (Bombay Centre). City Telephone Exchange Bldg.. H. Somani Marg. Bombay 400001.

Engineering and Commerce, Indian Socy. of, Commonwealth Bldg.. Oak Lane. Bombay 400001.

Engineers, Architects & Townplanners' Assocn., Practising, C/o G. L. Raheja & Associates. Rampart House. Rampart Row. Bombay 400023.

Engineers, Bombay, Socy. of Model, 23/24, Noble Chambers, Parsi Bazaar St., Bombay 400001.

Engineers (India), Insttn. of, 15. Haji Ali Park. Clerk Rd., Bombay 400034.

Engineers (India), Insttn. of Mechanical, 29. Walchand Hirachand Marg, Bombay 400038.

Estate Agents' Assocn. of India, Sheel Chambers, Cawasji Patel St., Bombay 400001.

Film Directors' Assocn., Indian, 501, "Navin Asha", D. Phalke Rd., Bombay 400014.

Film Exporters Assocn., Indian, 4-E Naaz Bldg., Dr. D. Bhadkamkar Marg, Bombay 400004.

Film Fedn. of India, 91, Walkeshwar Rd., Bombay 400006.

Flat Owners' Assocn., 23, Ambalal Doshi Mrg., Bombay 400001

Football Assocn., Western India, Cooperage Football Ground Bombay 400021.

Football Fedn., All India, 92, Dr. D. Naoroji Rd., Bombay 400001.

Heart Disease & Rehabilitation, Socy. for the Prevention of, India House, No. 2, Kemp's Corner, Bombay 400036.

Hockey Association, Bombay, D Rd., Bombay 400020.

Homoeopathic Association, Bombay, 311, Tardeo Rd., Nana Chowk, Bombay 400007.

Homoeopathic Medical Assocn., Maharashtra State, Vijayanagar, Dadar, Bombay 400028.

Income-Tax Consultants, Chamber of, Sunbeam Chambers, 7, Marine Lines, Bombay 400020.

Insurance Surveyors & Adjusters, Instt. of, General Assurance Bldg., 2nd Flr., Dr. D. N. Rd., Bombay 400001

Journalists, Bombay Union of, Prospect Chambers Annexe, Dr. D. Naoroji Rd., Bombay 400001.

Kidney Foundation (India), National, C/o Warden Road Polyclinic, Ben Nevis, B. Desai Marg, Bombay 400026.

Law Instt., Indian (Maharashtra State Unit), C/o Little & Co., Central Bank Bldg., M. Gandhi Rd., Bombay 400023.

Law Socy., Bombay Incorporated, High Court New Bldg., Bombay 400032.

Management Assocn., Bombay, Army & Navy Bldg., Mahatma Gandhi Rd., Bombay 400023.

Management Consultants, Council of, Krishna Kunj, S. Bapat Mrg., Bombay 400016.

Management Consultants' Assocn. of India, C/o Tata Consultancy Services, Air India Bldg., Nariman Point, Bombay 400021.

Marine Engineers, Instt. of, Nirmal, Nariman Point, Bombay 400021.

Marine Technologists, Instt. of, C/o Ericson & Richards, 32, Nicol Rd., B. Estate, Bombay 400038.

Maritime Board, National, Mackinnon Mackenzie Bldg., B. Estate, Bombay 400038.

Maritime Union of India, 204, Dr. D. Naoroji Rd., Bombay 400001.

Master Marines of India, Company of, C/o Ericson & Richards, 32, Nicol Rd., B. Estate, Bombay 400038.

Materials Management, Indian Assocn. of, (Hqrs.), 405, Vyapar Bhavan, 4th Flr., 49, P. D'Mello Rd., Carnac Bunder, Bombay 400009.

Mathematical Socy., Indian, C/o Deptt. of Mathematics, I.I.T., Powai, Bombay 400076.

Medical Assocn., Indian, (Bombay Branch), Keshavrao Khadye Mrg., Bombay 400034.

Medical Council, Maharashtra, Swadeshi Mills Estate, M. Parmanand Marg, Bombay 400004.

Medical Union, Bombay, Blavatsky Lodge Bldg., French Bridge, Chowpatty, Bombay 400007.

Medical Women in India, Assocn. of, IMA Bldg., Keshavrao Khadye Mrg., Bombay 400034.

Mental Hygiene, Indian Council for, and **India Instt. of Mental Health & Human Relations**, Cambatta Chambers, 42, Maharshi Karve Rd., Bombay 400020.

Mentally Ill, Assocn. for the Friends of the, Opp. Chawl No. 5, Next to Police Stn., Delisle Rd., Bombay 400011.

Natural History Socy., Bombay, Hornbill House, S. Bhagat Singh Rd., Bombay 400023.

Nursing Council, Maharashtra, Gresham Assurance Bldg., Sir P. Mehta Rd., Bombay 400001.

Obstetric & Gynaecological Societies of India, Purandare Griha, 31/C, Dr. N. A. Purandare Mrg., Bombay 400007.

Offshoe Engg. & Underwater Technology of India, Socy. for, 91/92, Bajaj Bhavan, Nariman Pt., Bombay 400021.

Oil Technologists' Assocn. of India, Deptt. of Chemical Technology, Matunga Rd., Bombay 400019.

Olympic Assocn., Maharashtra State, Brabourne Stadium (North Stand), Bombay 400020.

Ophthalmological Socy., All India, Sarojini Sadan, Congress House, Bombay 400004.

Oral & General Health, Indian Socy. for the Propagation of, C/o Dr. Fali S. Mehta, India House, Cumballa Hill, Bombay 400036.

Organisation & Methods Assocn. of India, C/o Larsen & Toubro Ltd., Powai Works, Bombay 400072.

Patrakar Sangha, Mumbai Marathi, Patrakar Bhavan, Mahapalika Mrg., Bombay 400001.

P.E.N. All India Centre, Theosophy Hall, 40, New Marine Lines, Bombay 400020. Indian Branch of the Intnl. P.E.N. Club of leading poets, playrights, editors, essayists, novelists.

Personnel Management, National Instt. of, M. G. Textile Technical School Premises, Parel, Bombay 400012.

Pharmacy Council, Maharashtra State, 5, Military Square Lane Corner, Medows St., Bombay 400023.

Philatelic Socy. of India, C/o K. D. Dinshah, Dharwar Bldg., Zorastrian Estate, Tardeo Rd., Bombay 400034.

Physicians of India, Assocn. of, 21, Karve Mrg., Bombay 400004.

Plant Engineers, Indian Insttn. of, 86, Mahendra Chambers, 134/136, Dr. D. N. Road, Bombay 400001.

Plastics & Rubber Instt.—Indian Section (Plastics), C/o Popular Plastic Products, 10, K. C. Indl. Estate, Subhas Rd., Jogeshwari East, Bombay 400060.

Press Assocn. of India, 196B, Gaiwadi, Girgaum, Bombay 400004.

Press Guild of India, Majestic Hotel, Bombay 400039.

Production Engineers, Insttn. of, Churchgate House, 32, V. Nariman Rd., Bombay 400023.

Psychologists' Assocn., Bombay Amateur, Psychology Deptt., Sophia Coll., Bhulabhai Desai Rd., Bombay 400026.

Public Relations Socy. of India, C/o Pfizer Ltd., PR Deptt., Express Towers, N. Point, Bombay 400021. The Society has ten regnl. chapters in Bombay, Delhi,, Ahmedabad, Vadodara, Calcutta, Madras, Hyderabad, Bangalore, Cochin & Visakhapatnam and a National Council as the All India body. Present membership exceeds 1000. *Pres.*, K.S. Neelakandan.

Radioisotopes & Radiation in Industry, National Assocn. for Applications of, C/o Isotope Group, Trombay, Bombay 400085.

Radiologists Assocn, Indian, 534, Sardar Patel Rd., Bombay 400007

Rationalists' Assocn., Maharashtra, 26, Municipal Indl. Estate, K. Khadye Mrg., Jacob Circle, Bombay 400011.

Recruiting Agents Assocn. of India, Templchar Bldg., 147, M. Gandhi Rd., Bombay 400023.

Retired Persons, Indian Assocn. of, C/o P.T. Gohil, Gohil House, Lady Jamshedji Rd., Mahim, Bombay 400016.

Rheumatism Assocn., Indian, Commerce Centre, J. Dadajee Rd., Bombay 400034.

Rifle Assocn., Maharashtra State, Municipal Rifle Range, Worli Sea Face, Bombay 400025.

Roads & Transport Development Assocn. Ltd., Indian, 27, Bastion Rd., Bombay 400001

Sales Tax Practitioners' Assocn. Ltd., Mohatta Mkt. Bldg., Paltan Rd., Bombay 400001

Seafarers' Fedn., United, Podar Chambers, Donde Marg, Bombay 400012

Seafarers of India, National Union of, 4, Goa St., Bombay 400001.

Seamen's Socy., Royal Bombay, 18, Nicol Rd., B. Estate, Bombay 400038.

Secretaries, Instt. of, Lentin Chambers, Dalal St., Bombay 400023.

Sex Educators, Counsellors & Therapists, Indian Assocn. of, C/o Dr Prakash Kothari, 203-A, Sukhsagar, Hughes Rd. Corner, Opera House, Bombay 400007.

Surgery Rehabilitation & Research, Socy. for Reconstructive, C/o Tata Deptt. of Plastic Surgery, J. J. Group of Hospitals, Bombay 400008.

Table Tennis Assocn., Maharashtra State, Brabourne Stadium, Bombay 400020.

Tax Consultants' Assocn. of India, 103, Sharda Chambers, New Marine Lines, Bombay 400020.

Taximen's Union, Bombay, Navjivan Co-op. Housing Socy., D. Bhadkamkar Mrg., Bombay 400008.

Tennis Assocn., Maharashtra State Lawn, Cooperage, Bombay 400020.

Theatre Owners Assocn., Everest Premises, CHS, Ltd., Tardeo, Bombay 400034.

Tourism Council, International, Darya Bldg., 375, Dr. D. Naoroji Rd., Bombay 400001.

Tuberculosis Assocn., Maharashtra State Anti-, T.B. Hospital Compound, J. Wadia Rd., Sewree, Bombay 400015.

Vacuum Socy., Indian (Regd.), C/o Technical Physics Divn.' Bhabha Atomic Research Centre, Trombay, Bombay 400085.

To promote, foster and encourage the growth of vacuum sciences, techniques and applications in the country by conducting regular courses, workshops, seminars, symposia, exhibitions and publication of bulletin, journal, manuals, etc. Help ISI in drafting standards and establish centres for testing & quality controlling vacuum equipment and to render technical advice. It is affiliated to Intnl. Union of Vacuum Science, Technique and Applications (IUVSTA).

Wildlife Fund—India, World, Great Western Bldg., Shahid Bhagat Singh Rd., Bombay 400023.

Associations in Maharashtra Districts

COMMERCIAL

Acrylic Sheets Mfrs. Assocn., S. B. Plastic Ind. Compd., Netivali Village, Poona Link Rd., Kalyan 421301.

Aluminium Industries, Assocn. of Small Scale, 1243/80, Shivaji Udyamnagar, Kolhapur 416002.

Automobile Assocn., Western India, 7, Moledina Rd., Pune 411001.

Bee Keeper Assocn., All India, 817, Sadashiv Peth, Datar Wada, Pune 411030.

Book Publishers Assocn., Maharashtra School, 2040, Sadashiv Peth, Tilak Rd., Pune 411030.

Booksellers Assocn., Pune, C/o Hindustan Sahitya, 309, Shaniwar Peth, Pune 411030.

Brass and Copper Merchants Assocn., Ltd., New 246, Raviwar Peth, Old 167, Guruwar Peth, Pune 411002.

Cotton Merchants Assocn., Vidarbha, Cotton Mkt., Akola 444001.

Engineering Assocn., Kolhapur, Shivaji Udyam Nagar, Kolhapur 416001.

Engineering Society Ltd., Maharashtra Co-op., Indl. Estate, Poona-Bangalore Rd., Shiroli, Kolhapur 416112.

Fabricators Assocn., (S.S.I.), ICEM Compound, Wagle Estate, Thane 400604.

Grape Growers Assocn. (Maharashtra Rajya Draksha Bagaitdar Sangh), 17/1, Shivajinagar, Pune 411005.

Hosiery Mfrg. Assocn., Poona, 264, Shanwar Peth, Pune 411002.

Industries Assocn., Vidarbha, Bank of Maharashtra Bldg., Sitabuldi, Nagpur 440012.

Manufacturers' Assocn., Deccan, "Rose Cottage", Madhavnagar Rd., Sangli 416416.

Manufacturers' Assocn., Kalyan Ambarnath, New Municipal Bldg., Kalyan 421301.

Manufacturers' Assocn., Thane, T.M.A. House, P-6, Main Rd., Wagle Indl. Estate, Thane 400604.

Mills Assocn., Maharashtra Mofussil, C/o Empress Mills, Nagpur 440008.

Mineral Industry Assocn., 'Mineral House', Nagpur 440001.

Mining Assocn., M. P. & Vidarbha, Post Box No. 8, Nagpur 440001

Oil Industry Assocn., All India Non-Edible, 'Taru Sneha', 1153, Ganeshkhind Rd., Pune 411016.

Paper Traders Assocn., C/o Mahesh Paper Mart, New Itwari Rd., Nagpur 440002.

Paper Traders' Assocn., Poona, 495, Shanwar Peth, Pune 411030.

Pharmaceutical Assocn., Indian, Deptt. of Pharmaceutical Sciences, Nagpur Univ., Nagpur 440001.

Pharmaceutical Assocn., Indian, Sai Krupa, 122, Bhawani Peth, Pune 411002.

Powerloom Weavers' Co-op. Assocn. Ltd., Ichalkaranji, Ward No. 9, H. No. 513, Ichalkaranji 416115.

Press Owners' Assocn. Ltd., Poona, 'Mudrak Bhavan', 1078 Sadashiv Peth, Pune 411030.

Productivity Council, Poona Divisional, Mahratta Chamber Bhavan, Tilak Rd., Pune 411002.

Rubber Ind. Assocn., Poona, Auto Steel Ind., C-2-1, Technicia Block, Bhosari Indl. Estate, Pune 411026.

Small Scale Industries Assocn., Thane, Khambete Wadi, Chara Thane, 400601.

Spices and Oilseeds Exchange Ltd., Wakhar Bagh, B. No. 162, Sang 416416. The only Exchange in India recognised for control & regulatio of forward trading in turmeric.

Spun Pipe Mfrs., Assocn. of India, 'Shradha', Opp. Octroi Nak Satara Rd., Pune 411009.

CULTURAL, SOCIAL AND PROFESSIONAL

Altrusa Club (Assn. of Women in Profession & Business), C/o D (Miss) S. Iyengar, L. A. D. Coll. for Women, Seminary Hills, Nagpu 440006.

Architects, Engineers & Surveyors Assocn., 'Indraprastha', 1134/1 Shivaji Nagar, Pune 411005.

Balkan-ji-Bari, Bapu Gaon (Via Dahanu Rd.) 401602. Thane Dis

Beauty Without Cruelty (India Branch), 4, Prince of Wales Driv Wanowire, Pune 411001.

Chartered Accountants of India, Instt. of, C/o C. R. Sagdeo & C Jail Rd., Nagpur 440012.

Chartered Accountants of India, Instt. of, C/o M/s. Bhide, Palnitkar Shah, 1025, Sadashiv Peth, Pune 411030.

Dietetics Service, All India Assocn. of, C/o Miss Y. V. Mish Women's Polytechnic & Research Centre, Seminary Hills, Nagp 440001.

Engineers (India), Insttn. of, 1332, Shivajinagar, Jangli Maharaj R Pune 411005

France, Assocn. of the Friends of, 1015 3, Janawadi Rd., Pu 411016.

Free Enterprise, Forum of, 69, Kasbapeth, Pune 411011.

Horticultural Devpt. Assocn., Maharashtra State, Horticultural Secn., Coll. of Agriculture, Pune 411005.

India Foundation, 595, Budhwar Peth, Pune 411002. Grants of scholarship & financial aid, gifts or loans, to students of outstanding merit of edn. in India & abroad, irrespective of caste, creed, religion or language.

Industrial Museum—Mahatma Phule Vastu Sangrahalaya, Ghole Rd., Pune 411004.

Leprosy Relief Assocn., Ahmadnagar Dist., Ahmadnagar 414001.

Linguistic Socy. of India, Deccan College Postgraduate & Research Instt., Pune 411006.

Literature and Culture, Maharashtra State Board for, Viswakosha Unit Office, C/o Prajna Pathshala, Wai 412803.

Management Assocn., Nagpur, C/o Nag-Vidarbha Chamber of Commerce, Temple Road, Nagpur 440001.

Management Assocn., Poona, 1332, Shivajinagar, Pune 411005.

Management Consultants, Assocn. of, 189, Sadashiv Peth, Natu Baug, Pune 411030.

Max Mueller Bhavan, 14/3-B, Boat Club Rd., Pune 411001.

Medical Assocn., Ahmadnagar, Wadia Park Ground, Ahmadnagar 414001.

Medical Assocn., Indian, 992, Shukrawar Peth, Tilak Rd., Pune 411002.

Medical Assocn. of India, Christian, Christian Council Lodge, Nagpur 440001.

Medical Centre, Miraj, Wanless Hospital, Miraj 416410.

Pathologists, Indian Assocn. of, Deptt. of Pathology, Miraj Medical College, Miraj 416410.

Philosophical Assocn., Indian, P.O. Vidarbha Mahavidyalaya, Amravati 444601.

Sciences, Maharashtra Academy of, C/o Dept. of Geology, Univ. of Poona, Ganeshkhind, Pune 411007.

Science, Maharashtra Assocn. for the Cultivation of, Law College Rd., Pune 411004.

Secular Socy., Indian, 'Aboli', 850/8A, Shivajinagar, Pune 411004.

Servants of India Socy., Pune 411004. The Society, founded by Gopal Krishna Gokhale in 1905, is primarily political but it does tribal & backward classes welfare work in the Mirzapur, Allahabad, Nainital, Lakhimpur Kheri, Gonda, Bahraich & Bijnore Dists. (U.P.), Tamil Nadu, A.P., Orissa & Kerala on a considerable scale. Also engaged in education, social welfare, rural devpt. & distress relief.

Seva Sadan Socy., Poona, 613-614, Sadashiv Peth, Pune 411002.

Sharada Udyog Mandir, Near Jaystambha, Amravati 444601. A charitable & indl. institution to help widows & poor women by teaching handicrafts, tailoring, embroidery, etc.

Women in India, National Council of, 'Lakaki', Model Colony, Pune 411016.

Youth Hostels' Assocn. of India, 87, West Park Rd., Dhantoli, Nagpur 440001.

MANIPUR

CULTURAL, SOCIAL AND PROFESSIONAL

Family Planning Assocn. of India, Keishamthong Bazar, Imphal 795001.

Red Cross Socy., Indian, 114/D. M. Gandhi Avenue, Imphal 795001.

TB Control Centre, Lamphelpat, Imphal 795004.

MIZORAM

COMMERCIAL

Small Scale Industries Assocn., Mizoram, Cantonment Rd., Aizawl 796001.

ORISSA

COMMERCIAL

Exercise Books, All Orissa Assocn. of Mfrs. of, Basulishi, Buxi Bazar, Cuttack 753001.

Glass Mfrs. Assocn., Orissa, C/o Shree Durga Glass Works, Barang 754005 (Cuttack Dist.).

Marketing Socy. Ltd., Orissa State Co-op., Station Rd., Bhubaneswar 751006.

Millowners Assocn., Orissa, College Square, Cuttack 753003.

Paper Dealers Assocn., Orissa, C/o Rameswarilal Muralidhar, Banka Bazar, Cuttack 753002.

Pharmaceutical Assocn., Indian, Berhampur 760001, Ganjam Dist.

Productivity Council, Cuttack, Industrial Estate, Cuttack 753010

Salt Mfrs. Assocn., Orissa, Nayasarak, Cuttack 753002.

Small Scale Industries Assocn., Orissa, Ind. Estate, Cuttack 753010.

Tyre & Accessories Dealers Assocn., Fedn. of Orissa, Cantonment Rd., Cuttack 753001.

CULTURAL, SOCIAL AND PROFESSIONAL

Engineers (India), Instn. of, Sachivalaya Mrg., Unit IV, Bhubaneswar 751001.

Medical Assocn., Indian, S.C.B. Medical Coll., Cuttack 753007.

Red Cross Socy., Indian, Red Cross Bhavan, Bhubaneswar 751007.

Sahitya Akademi, P.O. Box 56, Bhubaneswar 751001.

Theosophical Fedn., Talatelenga Bazar, Cuttack 753001.

PONDICHERRY

CULTURAL, SOCIAL & PROFESSIONAL

World Union, Sri Aurobindo Ashram, Pondicherry 605002.

PUNJAB

COMMERCIAL

Auto Spares & Accessories Mfrs. Assocn., 983, Preet Nagar, Jullundur City, 144001.

Bolts & Nuts Mfrs. Assocn., Ind. Area, Sodal Rd., Jullundur 144004.

Booksellers Assocn., Chandigarh, SCO No. 3, Sector 17E, Chandigarh 160017.

Builders' Assocn. of India, 154, Sector 9B, Chandigarh 160017.

Business Management Assocn., Punjab, Tanda Rd., Jullundur City 144001.

Co-operative Supply and Marketing Fedn. Ltd., P. Box No. 67, Chandigarh 160017.

Cottage Industries Assocn., Harban Lal Bldg., Bazar Jallianwalla Bagh, Amritsar 143001.

Cotton Cloth Mfrs. Assocn., Punjab, 19, Model Town, Amritsar 143001.

Cycle Parts Mfrs. Assocn., East Punjab, 12-R, Ind. Area, B, Ludhiana 141003.

Cycle & Parts Mfrs. Assocn., United, Miller Ganj, Gill Rd., Ludhiana 141003.

Engineering Assocn., Fedn. of, Tanda Rd., Jullundur City 144001.

Engineering Assocn. of Northern India, G. T. Rd., Batala 143505, Gurdaspur Dist.

Engineering Industries Assocn., C/o Bharat Printing Machine Mfg. Co., G. T. Rd., Mall Mandi, Amritsar 143001

Engineering Industry, Assocn. of Indian (Punjab Regnl. Office), Tanda Rd., Jullundur 144001.

Foundry Assocn. of Punjab, Tanda Rd., Jullundur City 144001.

Hand Tool Mfrs. Assocn., WG-246, Islamabad, Jullundur 144004

Handloom Assocn., Fedn. of, Katra Ahluwalia, Amritsar 143001

Hosiery Industry Fedn. (Regd.), Sat Sang Ghar Rd., Civil Lines, Ludhiana. 141003

Hosiery Machine Mfrs.' Assocn., 461 62, Industrial Area B. Miller Ganj, Ludhiana 141003.

Hosiery Mfrs. Assocn., Beri Rd., Civil Lines, Ludhiana 141001.

Hosiery Mfrs. Assocn., United, Arya Samaj Mandir, Dal Bazar, Ludiana 141001

Hosiery Mfrs. Export Organisation, Mai Harkishan Kaur Sarai, Civil Lines, Ludhiana 141003

Industrial & Commercial Employers, Chamber of, Civil Lines, Ludhiana 141003

Industry & Commerce, Punjab Fedn. of, Inside Hall Gate, Amritsar 143001.

Interlock & Skinner Cloth Mfrs. Assocn., New, 8, Khud Mohalla, Ludhiana 141001

Machine Tools Makers Guild, Ludhiana, 510, Deep Rd., Ind. Area B, Ludhiana 141003.

Manufacturers' Organisation, All India, C/o Pearl Hosiery Mills, Sukhram Nagar, Ludhiana 141003.

Master Printers' Assocn., Tej Press Bldgs, Katra Sher Singh, Hall Bazar, Amritsar 143001.

Motor Parts Mfrs. Assocn., Ludhiana, 21, Roshan Mkt., Millerganj, Ludhiana 141003.

Motor Parts Traders Assocn., Punjab, Nehru Garden Rd., Jullundur 144001.

Newspapers Assocn., All India Small, 3028, Sector 19-D, Chandigarh 160019.

Nut Bolt Mfrs. Assocn., Ludhiana, B-XXI-663, Pratap Nagar, Basant Rd., Ludhiana 141003.

Oil Expeller Mfrs. Assocn.,Indian, G.T. Rd., Millerganj, Ludhiana 141003.

Pharmaceutical Assocn., Indian, Deptt. of Pharmaceutical Sciences, Punjab Univ., Chandigarh 160014.

Productivity Council, National, 1037, Sector 27-B, Chandigarh 160019.

Radio Trade Fedn., Punjab, Railway Rd., Jullundur 144001.

Re-Rollers Council of India, Guru Nanak Bldg., Mandi Gobindgarh 147301

Sewing Machine Industries Assocn., Punjab, C/o Gobind Ram & Sons, 502, Industrial Area B, Ludhiana 141003.

Sewing Machine Industry (Regd.), Federation of Small Scale, Lakkar Bazar, Ludhiana 141008.

Small Inds. Assocn., Chandigarh, 245, Industrial Area, Chandigarh 160017.

Textile Mfrs.' Assocn., 4, Diwan C. Mehra Rd., Amritsar 143001.

Wrap Knitting Industry Assocn., Punjab, Opp. Kashmir House, I-C, Court Rd., Amritsar 143001.

Water Fittings Mfrs.' Assocn., All India Non-Ferrous, Tanda Rd., Jullundur City 144001.

Wollen Mfrs. Assocn. Ltd., Amritsar Small Scale, Shastri Mkt., Bazar Sabunia, Amritsar 143001

CULTURAL, SOCIAL AND PROFESSIONAL

Chartered Accountants of India, Instt. of, Kothi No. 3, Sector 18A, Chandigarh 160017

Chartered Accountants of India, Instt. of, C/o S. Bhushan & Co., Punjab National Bank Bldg., Civil Lines, Ludhiana 141003.

Engineers (India), Insttn. of, Madhya Mrg., Sector 19-A, Chandigarh 160019.

Family Planning Assocn. (Punjab Branch), Red Cross Bhavan, Madhya Marg, Sector 16 A, Chandigarh 160017

Medical Assocn., Indian, 3343, Sector 23-D, Chandigarh 160017.

Red Cross Socy., Indian (Punjab State Branch), Red Cross Bldg., Sector 16-A, Chandigarh 160017.

Sahitya Akademi, Punjabi, Punjabi Bhavan, Ludhiana 141003.

Shiromani Gurudwara Parbandak Committee, Teja Singh Samudri Hall, Amritsar 143001.

Surgeons of India, Assocn. of, C/o Dr. B. C. Bapa, Deptt. of Urology, Post Graduate Instt. for Medical Research & Edn., Chandigarh 160017.

RAJASTHAN

COMMERCIAL

Builders' Assocn. of India, 25, Bhagwandas Rd., Jaipur 302001.

Chemical Mfrs. Assocn., Udaipur, 50, Ashoknagar, Udaipur 313001.

Conductor Mfrs. Assocn., Rajasthan, 4, Malviya C Scheme, Jaipur 302001.

Cycle Mfrs.' Assocn. of Rajasthan, Behind Atish, Gangori Bazar, Jaipur 302001.

Employers Assocn. of Rajasthan, Podarpuri, Jaipur 302006.

Hosiery Mfrs. Assocn., Rajasthan, 8, Bichunka Bagh, Sansarchandra Rd., Jaipur 302003.

Iron Ore Mine Owners & Exporters Assocn., Rajasthan, Johari Bazar, Jaipur 302003.

Iron & Steel Rerollers' Assocn., Rajasthan, 1155-57, Rasta Singhiji S.M.S. Highway, Jaipur 302003.

Marble Industries Assocn., Makrana, Indl. Estate, Makrana 341505.

Paper Traders Assocn., Rajasthan, Rampura Bazar, Kota 324001.

Pharmaceutical Assocn., Indian, Deptt. of Pharmacy, Public Health Trg. Instt., Jaipur 302004.

Plastic Industries Assocn., Nimaj House, Jodhpur 342001.

Productivity Council, Rajasthan State, E-29, Lajpat Marg, 'C' Scheme, Bhagwandas Rd., Jaipur 302001.

Pushtak Vyavasayee Sangh, Rajasthan, Chaura Rasta, Jaipur 302003.

Salt Distributors, Chambers of Genuine, Gaushala Bhavan, Dhan Mandi, Sambhar Lake 303604.

Small Industries of Rajasthan, Fedn. of Assocns. of, Rajasthan Chamber Bhawan, M.I. Rd., Jaipur 302003.

Small Tools Mfrs. Assocn., C/o Khandewala Udyog, Behari Marg, Beni Park, Jaipur 302001.

Steel Furniture Mfrs. Assocn., Rajasthan, Atish Mkt., Jaipur 302001.

Textile Mills Assocn., Rajasthan, Durlabh Bhawan, Mirza Ismail Rd., Jaipur 302001.

CULTURAL, SOCIAL AND PROFESSIONAL

Chartered Accountants of India, Instt. of, Khetan Bhawan, M.I. Rd., Jaipur 302001.

Engineers (India), Instt. of, Near Children's Park, Gandhinagar, Tonk Rd., Jaipur 302001.

Family Planning Assocn., of India, Mundri Mohalla, Ajmer 305001.

Lalit Kala Akademi, Rajasthan, Ravindra Manch, Ramnivas Garden, Jaipur 302004.

Medical Assocn., Indian, J-2/152, Vivekananda Mrg., Ashok Nagar, Jaipur 302001.

Sangeet Natak Academy, Rajasthan, Paota, A-1 Rd., Jodhpur 342001.

Social Welfare, Indian Council of, Naib-ji-ka-Bagh, Moti Dongri Rd., Jaipur 302004.

TB Assocn., Rajasthan State, Office of the Directorate of Medical & Health Service, Jaipur 302001.

Zoological Socy., Deptt. of Zoology, Birla Instt. of Technology & Science, Pilani 333031.

TAMIL NADU
COMMERCIAL

Aluminium Merchants' and Mfrs. Assocn., Madras, 10/11, Peddu Naicken St., Madras 600003.

Aluminium Semis & Extrusions Assocn., 7, Ekambareswara Agraharam, Madras 600003.

Art Silk Handloom Cloth Mfrs. & Exporters' Assocn., 30, B. East Colony, Komarapalayam 638183, Salem Dist.

Automobile Assocn. of Southern India, 38-A, Mount Rd., Madras 600006.

Blockmakers Assocn., South India, 26, Cathedral Rd., Madras 600086.

Booksellers' and Publishers' Assocn. of South India, C/o Higginbothams Pvt. Ltd., 614, Mount Rd., Madras 600002.

Brick and Tile Mfrs. Assocn., 9, Jayammal St., Shenoy Nagar, Madras 600030.

Builders' Assocn. of India (South Centre), 3/3A, College Rd., Madras 600006.

Cable & Conductor Mfrs. Assocn., Tamil Nadu, 5, Smith Rd., Madras 600002.

Cardamom Traders Chamber, Main Rd., Bodinayakanur 626513, Madurai Dist.

Cement Mfrs. Assocn., 72, East Veli St., Madurai 625001.

Ceramic Mfrs. Assocn., B-1, Industrial Estate, Vridhachalam 606001.

Chemical Mfrs. Assocn., 15/1, C.B.K. Lane, Kamaraja Rd., Madurai 625009.

Chemists & Druggists Fedn., All India, 1, Memorial Hall St., Madras 600003.

Clothing Mfrs.' Assocn. of India (S. Regnl. Office), Indian Chamber Bldgs., Esplanade, Madras 600001.

Coffee Merchants' Assocn., All India, 55, Rangai Gowder St., Coimbatore 641001.

Corrugated Box Mfrs. Assocn., South India, 84, Sydenham's Rd., Madras 600007.

Cotton Assocn., South India, 14-C/14-D, Travellers Bungalow Rd., Coimbatore 641018.

Dyes and Chemicals Merchants' Assocn., Tamil Nadu, 209, Govindappa Naick St., Madras 600001.

Electric Traders Assocn., Madras, 26, Tholasingham St., Madras 600001.

Employers' Combine, All India, 367, East Masi St., Madurai 625001.

Employers' Fedn. of Southern India, Dare House Annexe, 3/4, Moore St., Madras 600001.

Engineering Industry, Assocn. of Indian, Suriya Mansion, 652, Anna Salai, Madras 600006.

Engineering Mfrs. Assocn., Southern India, Kalaikathir Bldg., Avanashi Rd., Coimbatore 641018.

Fertiliser Assonc. of India (S. Regnl. Branch), Andhra Chamber Bldg., 272/3, Angappa Naicken St., Madras 600017.

Fertilizer Co-operative Ltd., Indian Farmers', 57, Venkatanarayana Rd., Madras 600017.

Film Chamber of Commerce, South Indian, T. R. Sundram Ave., 123, Mount Rd., Cathedral P.O., Madras 600006.

Film Distributors Council, Tamil Nadu (Regd.), 6-A, Woods Rd., Madras 600002.

Film Producers Guild of South India, 41, Bazlullah Rd., Madras 600017.

Fireworks Mfrs. Assocn., Small Scale Cottage, Door No. 7-3/5, Seeni Moopnagar St., Sivakasi 626163.

Glass Mfrs. Assocn., South India, C/o S. India Glass & Enamel Works Ltd., 172, Cherry Rd., Salem 636007.

Goods Transport Assocn., Madras, 278, Linghi Chetty St., Madras 600001.

Gunny Merchants' Assocn., Madras, 35-A, Audiappa Naicker St., Madras 600001.

Handicraft Mfrs. Assocn., Tamil Nadu, 78/12, Kumaran Rd., Tirupur 638501.

Handicrafts Co-operative Marketing Socy. Ltd., Madras State, 329 Thambu Chetty St., Madras 600001

Handkerchiefs Exporters Assocn. (Regd.), Real Madras, 6, Arunachala Asari St., Chepauk, Madras 600005

Handloom Cloth Mfrs. Assocn., Salem Gugai, 407, Trichy Main Rd., Salem 636006.

Handloom Cloth Producers' Assocn. Ltd., Madurai, 44, Lakshmipuram 2nd St., Madurai 625001.

Handloom Fabrics Marketing Co-op. Socy. Ltd., All India, 16, Sunkurama Chetty St., Madras 600001.

Handloom Inds. Assocn., Southern India, No. 3, Somasundaradevar 6th St., Aynavaram, Madras 600023.

Handloom Industry and Trade Assocn., Tamil Nadu, 72, Thambu Chetty St., Madras 600001.

Handloom Textile Mfrs. & Exporters' Society, Salem, Main Rd., Komarapalayam 638183 Salem Dist

Handloom Towels and Bedsheets Mfrs. Assocn., Tamil Nadu Fedn. of, Erode 638001.

Handloom Weavers' Co-op. Socy. Ltd., Tamil Nadu, 34/1A, Pantheon Rd., Madras 600008.

Hosiery Mfrs. Assocn., South India, 78/12, Kumaran Rd., Tirupur 638601.

Hotels and Restaurants Assocn., South India, Spencer's Bldg., 153, Mount Rd., Madras 600002.

Industrial Estate Assocn., Tamil Nadu, Developed Plot No. 48, A. Industrial Estate, Madras 600048.

Industrial Estate Mfrs. Assocn., Ind. Estate, Guindy, Madras 600032.

Industrial Estate Mfrs. Assocn., Ambattur, Ambattur, Madras 600058.

Industries Assocn., Madras, 114, Mowbray's Rd., Madras 600018.

Instruments & Electronics Industrial Estate Mfrs. Assocn. 1-6, Instronics Campus, Madras 600020.

Iron Safe Mfrs. Assocn. Madras, 58, Broadway, Madras 600001.

Iron & Steel Fabricators' Assocn., Madurai Dist., 66-A, South Avanimoola St., Madurai 625001.

Jewellers' and Diamond Merchants' Assocn., Madras, 11 & 12, Car St., Madras 600001.

Lungi Mfrs. Assocn., Cotton, C/o Nagor Mercantile, 41, Sembudoss St., Madras 600001.

Machine Tools Merchants' Assocn., Tamil Nadu, 52, Linghi Chetty St., Madras 600001.

Manufacturers' Organisation, All India (Tamil Nadu Board), 755, Mount Rd., Madras 600002.

Marketing Fedn. Ltd., Tamil Nadu Co-op., 91, St. Mary Rd., Raja Annamalaipuram, Madras 600018.

Marketing Fedn. Ltd., Tamil Nadu, 63, D. B. Rd., Coimbatore 641002.

Match Industries, Chamber of, Gudiyattam 362602, N. Arcot Dist.

Match Industries, Sivakasi Chamber of, 110, Kamaraj Rd., Sivakasi 626123.

Metalware Mfrs. & Merchants Assocn., Tamil Nadu, 36, Raghunayakulu St., Madras 600003.

Millowners' Assocn., Southern India, Race Course, Post Box 3783, Coimbatore 641018.

Millowners' Assocn., Tamilnadu, Meenakshi Nilayam, 1, P. K. Rd., Madurai 625003.

Motor Vehicles and Allied Industries Assocn., 22, Edward Elliot's Rd., Madras 600004.

Non-Ferrous Metal Rolling Mills Assocn., Tamil Nadu, 19, Venkatachala Mudali St., Madras 600003.

Oil & Allied Products Co-op. Fedn. Ltd., Tamil Nadu, Kuralagam, Madras 600001.

Oilseeds Growers' Fedn. Ltd., Tamil Nadu Co-op., 331, Anna Salai, Nandanam, Madras 600035.

Onion Traders' Assocn., 2/41, Malayaperumal St., Madras 600001.

Opticians Assocn., Madras, 24, Broadway, Madras 600001.

Palmgur & Fibre Marketing Co-op. Fedn. Ltd., Tamilnadu State, 52, Gengu Reddy Rd., Egmore, Madras 600008.

Paper Bag Mfrs.' Assocn., South India, 4, Bunder St., Madras 600001.

Paper & Board Convertors' Assocn., Madras, 275, N.S.C. Bose Rd., Madras 600001.

Pencil Mfrs.' Assocn., Indian, C/o Standard Pencil Factory, Super A-5 & 6, Ind. Estate, Madras 600032.

Pharmaceutical Assocn., Indian, C/o Rallis India Ltd., TCF Div., Arcot Rd., Madras 600092.

Pharmaceutical Trade, Joint Council of Indian, 1, Memorial Hall St., Madras 600003.

Photographic and Allied Trade Assocn., Ltd., South Indian, 1/129, Mount Rd., Madras 600006.

Planters' Assocn. of Southern India, United, P.O. Box No. 11, "Glenview", Coonoor 643101, Nilgiris.

Planters' Assocn. of Tamil Nadu, Canowie, Kotagiri Rd., Coonoor 643101.

Plastic Mfrs., Assocn., Tamil Nadu, 176, Walltax Rd., Madras 600001.

Printers' Assocn., Sivakasi Master, 87, Kamaraj Rd., Sivakasi 626123.

Printers' Assocn., Tamilnad, 18, East Hanumantharayan Koil St., Madurai 625001.

Printers' & Lithographers' Assocn., Madras, 31/2A, Pantheon Rd., Egmore, Madras 600008.

Productivity Council, National, 2, Dr. Alagappa Chettiar Rd., Madras 600084.

Productivity Council, Madras, 89, G. N. Chetty Rd., T. Nagar, Madras 600017.

Publishers' Assocn. of South India, 11, Sunkurama Chetty St., Madras 600001.

Pyrotechnists' Assocn., Indian, Valapalakudai St., Sivakasi 626123.

Radio & Electronics Assocn., All India, 22, General Patters Rd., Madras 600002.

Refrigeration and Air Conditioning Trades Assocn., 23/24, Second Line Beach, Madras 600001.

Salt Mfrs. and Merchants' Assocn., 159, Victoria St., Tuticorin 628001.

Salt Producers' & Exporters' Chamber, Tuticorin 628001.

Saltpetre Mfrs. Assocn., Tamil Nadu, 7/62-63, Coimbatore Palghat Main Rd., Kuniyamuthur Post, Coimbatore 641008.

Sanitary Dealers' Assocn., South India, 306, Thambu Chetty St., Madras 600001.

Skin and Hides Merchants' Assocn., All India, 53, Sydenham's Rd., Periamet, Madras 600003.

Small Industries of India, Fedn. of Assocns. of, 10, G. S. T. Rd., Madras 600032.

Small Scale Inds. Assocn., Tamil Nadu, 10, G. S. T. Rd., Guindy, Madras 600032.

Snuff & Tobacco Merchants Assocn., Madras State, 56, Varada Muthiappan St., Madras 600001.

Soap Mfrs. Assocn., Tamilnadu Southern Regional Handmade, 38-39, Amman Sannathi St., Madurai 625001.

Soap Mfrs. Assocn., Tamil Nadu Non-Power, 383-A, T. H. Rd., Madras 600081.

Steamer Agents' Assocn., Madras, 1/21, North Beach Rd., Madras 600001.

Steamer Agents' Assocn., Tuticorin, 90, South Raja St., Tuticorin 628001.

Steel Rolling Mills Assocn., Tamilnadu, Indian Chamber Bldg., Esplanade, Madras 600001.

Stevedores' Assocn., Madras, 41, Linghi Chetty St., Madras 600001.

Stevedores' Assocn., Tuticorin, 50, Beach Rd., Tuticorin 628001.

Stock Exchange Ltd., Madras, 16/17, Second Line Beach, Madras 600001.

Sugar Federation Ltd., Tamil Nadu Co-op., No. 2, Maharaja Surya Rd., Alwarpet, Madras 600018.

Sugar Mills Assocn., South Indian, Indian Chamber Bldgs., Esplanade, Madras 600001.

Synthetic Stones Mfrs. & Dealers' Assocn., Southern India, Big Bazar, Tiruchirapalli 620008.

Tanners and Dealers Assocn., South India, Ranipet 632401, North Arcot Dist.

Textile Assocn. (India), S. I. Branch, Near Kasturba Hospital, Cotton Mills Rd., Coimbatore 641015.

Textiles Assocn., Tamil Nadu, 2, First Gandhipuram, Erode 638003.

Textiles Mfrs. and Exporters' Socy., Handloom, Salem Main Rd. Komarapalayam 638183, Salem Dist.

Yarn Trade Fedn., South India, 38, Mint St., Madras 600003.

CULTURAL, SOCIAL AND PROFESSIONAL

Agri-Horticultural Socy., 18, Cathedral Rd., Madras 600006.

Animal Welfare Board, 1, First Main Rd., Gandhinagar, Madras 600020.

Animals, Socy. for Prevention of Cruelty to, Vepery High Rd., Vepery, 600007.

Anjaneya Swami Sabha (Regd.), Sri Baktha, Plot No. 15, Maruthinagar, Hasthinapuram, Madras 600064.

Asthika Samajam (Regd.), Venus Colony, Madras 600018.

Automobile Engineers (India), Insttn. of, 85, Mount Rd., Madra 600018.

Automotive Engineers, Insttn. of, 47, Third St., East Abhiramapuram, Mylapore, Madras 600004.

Ayyappa Seva Samajam, Sri, Plot C-45, South of Tower, Anna Nagar, Madras 600040.

Bar Assocn., High Court, Madras 600001.

Business Management (India), Instt. of, 9, Bishop Wallers Ave., Madras 600004.

Business Management, Insttn. of, 47, Third St., East Abhiramapuram, Mylapore, Madras 600004.

Carrom Fedn., All India (Also Carrom Asscn., T. Nadu), Room 9, Nehru Stadium, P. T. Madras 600003.

C. P. Ramaswamy Aiyar Foundation, The Grove, Teynampet, Madras 600018.

Catholic Centre, Armenian St., Madras 600001.

Chartered Accountants of India, Instt. of, Sri Ram Bldg., 138, Jail Rd., Coimbatore 641018.

Chartered Accountants of India, Instt. of, 231, Nungambakkam High Rd., Madras 600034.

Child Welfare, Indian Council for, 1, Prakasa Mudaliar Rd., Madras 600017.

Children, Madras Socy. for the Protection of, 465, T. H. Rd. Washermanpet, Madras 600021.

Chinmaya Mission, 10. Harrington Rd., Madras 600031.

Company Secretaries of India, Instt. of (Southern India Regnl. Council), New College Shopping Centre, 49, Peters Rd., Madras 600014.

Consumer Council of India, 8, A. C. Rd., Madras 600084.

Consumers' Co-op, Fedn. Ltd., Tamil Nadu, 26. Arcot Rd., Madras 600093.

Cricket Assocn., Tamil Nadu, M.A.C. Stadium. Victoria Hostel Rd., Chepauk, Madras 600005.

Cultural Relations, Indian Council for, 3/C-1. Eldams Rd., Madras 600018.

Dental Council, Madras, Block Central Office Bldgs., Madras 600006.

Economic Assocn., Indian, Deptt. of Economics, Univ. of Madras, Madras 600005.

Economics, Indian Socy. of Industrial & Fiscal, Univ. of Madras, Madras 600005.

Electrochemical Sciences & Technology, Socy. for the Advancement of, Central Electrochemical Research Instt., Cecrinagar, Karaikudi 623006.

Engineers (India), Insttn. of, 19. Adam's Rd., Chepauk, Madras 600005.

Family Planning Assocn. of India, No. 10. 2nd Main Rd., C.I.T. Colony, Madras 600004.

Film Societies of India, Fedn. of, 35/1. K. M. Naicken St., Madras 600028.

Football Assocn., Tamilnadu, Nehru Stadium, Madras 600003.

Free Enterprise, Forum of, 35. Mount Rd., Madras 600002.

Friend-in-Need Socy., Finsbree Garden, 19/20, Poonamallee High Rd., Madras 600003.

Geographical Socy., Indian, Univ. Centernary Bldgs., Chepauk, Madras 600005.

Hindu Dharma (Regd.), Assocn. of, 26. Venkatesan St., T. Nagar, Madras 600017.

Hockey Fedn., Indian, Corporation Stadium, Madras 600003.

Homoeopathic Assocn. of India, 10. Shafee Mohamed Rd., Madras 600006.

Homoeopaths, Indian Instt., of, 30. Bakthapuri St., Kumbakonam 612001; 78. West Tower St., Madurai 625001; 3/186. 2nd Flr., Mount Rd., Madras 600002.

Homoeopathy Council, Tamil Nadu, 36. Parthasarathy Naidu St., Madras 600005.

Horticultural Association, South Indian, Lawley Rd., Coimbatore 641003.

Indo-American Society, 112. Vepery High Rd., Madras 600003.

Indo-Canada Assocn., TNK House, 11-A/3. Mount Rd., Madras 600002.

Indo-Gambia Friendship Assocn., 3. Goomes St., Madras 600001.

Insurance Surveyors & Loss Assessors (S. India), Assocn. of, 11/12. 2nd Line Beach, Madras 600001.

International Art Centre, Kalakshetra, Tiruvanniyur, Madras 600041. Centre for education in classical music, dancing, theatrical art, painting & handicrafts.

Law Instt. (T. Naidu Unit), Indian, 8. High Court Chambers, Madras 600001.

Library Assocn., Madras, C/o Maraimalai Adigal Library, 105. Linghi Chetty St., Madras 600001.

Lift Irrigation Co-op. Fedn., Tamil Nadu, 32. Luz Church Rd. Madras 600004.

Literary Socy., Madras, Auxiliary of the Royal Asiatic Socy., College Rd., D.P.I. Compound, Madras 600006.

Management Assocn., Madras, 22. Dr. B. N. Rd., T. Nagar, Madras 600017.

Management Assocn. of Southern India, 1/4, Devajee Mansion, Melur Rd., Madurai 625001.

Materials Management, Indian Assocn. of, 5E, Lakshmi Bldgs., Vth Floor, 609. Anna Salai, Madras 600006.

Mathematical Socy., Indian, Ramanujan Instt., Univ. of Madras, Madras 600005.

Max Mueller Bhavan, Express Estates, Mount Rd., Madras 600002.

Medical Assocn., Indian, B-20, Swaminatha Sastri Rd., N.E. Extension, Thillianagar, Tiruchirapalli 620018.

Medical Council, Tamil Nadu, Block 1, Central Office Bldg., Mount Rd., Cathedral Post, Madras 600006.

Missionary Socy. of India, National, 102. Peters Rd., Madras 600014.

Nair Samajam, Madras, 7 Shenoy Rd., Nungambakkam, Madras 600034.

Painters, South Indian Socy. of, No. 13. 3rd Trust, Cross St., Madras 600028.

Personnel Management, National Instt. of, C/o L. G. Balakrishna & Bros., Trichy Rd., Coimbatore 641018.

Plant Engineers, Indian Insttn. of, 15A, Sivaganga Rd., Madras 600034.

Plastics & Rubber Instt., Indian Section (Plastics), (Madras Centre), C/o T. S. Biddapa, Nocil, 20, Nungambakkam High Rd., Madras 600034.

Public Affairs, Council of, 491. P. H. Rd., Madras 600007.

Quality Assurance, National Instt. of, B-5/214. BHEL Township, Tiruchirapalli 620014.

Raghavendra Swamy Sangha (Regd.), Sri, Aynavaram, Madras 600023.

Ramakrishna Math, Sri, 11. Sri Ramakrishna Math Rd., Mylapore, Madras 600004.

Ramakrishna Paramahamsa-Swami Vivekananda Instt., Sri, 86. Walltax Rd., Madras 600003.

Rasika Ranjani Sabha, Sundareswar St., Mylapore, Madras 600004.

Red Cross Socy., Indian, T. Nadu Branch, Red Cross Bldg., Montieth Rd., Egmore, Madras 600008.

Roads & Transport Devpt. Assocn., Indian, 123. Nungambakkam High Rd., Madras 600034.

Sarvodaya Sangh, Madras, 39. Linghi Chetty St., Madras 600001.

Scouts & Guides Bharat, 'Wenlock Park', Kamarajar Salai, Triplicane, P.B. No. 424, Madras 600005.

Servants of India Socy., 8. Westcott Rd., Royapettah, Madras 600014.

Seva Sadan, Madras, 5. Harrington Rd., Chetput, Madras 600031.

Sports Council, Tamil Nadu State, Nungambakkam Recreation Centre, Madras 600034.

Sri Raja Lakshmi Foundation, 5. Second Cross St., Mowbrays Rd., Madras 600018. Promotes literature, arts, sciences, humanities & other intellectual pursuits, and honours distinguished personalities in these fields by annual awards.

Statistical Institute, Indian, 417. Mettupalayam Rd., Coimbatore 641002.

Statistical Institute, Indian, 31. N. High Rd., Madras 600034.

St. John Ambulance Assocn., 1 Spur Tank (E) Rd., Madras 600031.

Surgeons of India, Assocn. of, Adams Rd., Madras 600005.

Technical Education, Indian Socy. for, IIT Campus, Madras 600036.

Theosophical Socy., (Intnl. Hqrs.), Adyar, Madras 600020.

Veterinary Assocn., Indian, 10. Avenue Rd., Madras 600034.

Village Uplift Fedn., Tamil Nadu, 6. New St., Kottur, Madras 600085.

Vivekananda Kendra, Kanyakumari 629702.

Volleyball Assocn., Tamil Nadu State, Nehru Stadium, Madras 600003.

Weight Lifting Assocn., Madras State, 6, Ayyavu Naidu East St., Madras 600030.

Y.M.C.A., Esplanade, Madras 600001.

Y.W.C.A., Poonamallee High Rd., Madras 600084.

TRIPURA
COMMERCIAL

Industries Assocn., Tirpura, Netaji Subhas Rd., Agartala 799001.

Soap Factory Owners Assocn., Tripura, Netaji Subhas Rd., Agartala 799001.

CULTURAL, SOCIAL AND PROFESSIONAL

Medical Assocn., Indian, G.B. Hospital, P. O. Kunjaban, Agartala 799006.

Red Cross Socy., Indian, Manikay Club, Agartala 799001.

TB Assocn. of Tripura, Office of the V.M. Hospital, Agartala 799001.

UTTAR PRADESH
COMMERCIAL

Automobile Assocn., U.P., 32-A, M. Gandhi Mrg., Allahabad 211001.

Barbed Wire Mfrs.' Assocn., U.P., 58/4, Birhana Rd., Kanpur 208001.

Biscuit Mfrs. Assocn., U.P., 84/67, G.T. Rd., Kanpur 208001.

Booksellers' Assocn., Rajpur Rd., Dehra Dun 248001.

Brass Merchants & Mfrs.' Assocn., Banaras, Vyapar Bhawan, Thatheri Bazar, Varanasi 221001.

Carpet Mfrs.' Assocn. All India, Post Box No. 63, Kaleen Bhawan, Maryadpatti, Bhadohi 221401.

Carpet Mfrs. Co-op. Assocn. Ltd., Quality Marked Woollen, Gopal Das Rd., Mirzapur 231001.

Christian Tract & Book Socy., North India, 18, Clive Rd., Allahabad 221001.

Concrete Pipe Mfrs.' Assocn., U.P., 239-A, National Highway, New Agra, Agra 282001.

Conductor Mfrs. Assocn., U.P., Kautilya Kendra Mrg., Varanasi Cantt. 221002.

Diesel Engine Mfrs.' Assocn., U.P., 88, North Vijay Nagar Colony, Agra 282001.

Employers' Assocn. of Northern India, 14-69, Civil Lines, Kanpur 208001.

Engineering Assocn. of Northern India, 79/7 Latouche Rd., Kanpur 208001.

Engineering Chamber of Uttar Pradesh, 92, Fazalganj, Kanpur 208021

Glass Factories Assocn., Sadar Bazar, Firozabad 283203, Agra Dist.

Glass Mfrs.' Syndicate, U.P., C/o Paliwal Glass Works, Shikohabad 205141.

Hosiery Assocn., Kanpur, 118/265, Kaushalpuri, Kanpur 208012.

Hosiery Knitters Assocn., Kanpur, 119/31, Nasimabad, Kanpur 208012.

Industrial Estate Mfrs. Assocn., U.P., 5, Ind. Estate, Kanpur 208001.

Iron Founders' Assocn., Agra, 88, North Vijay Nagar Colony, Agra 282004

Light & Small Industries Assocn., U.P., Achal Tank East, Achal, Aligarh 202001.

Lock Mfrs.' and Traders' Assocn., Aligarh, Tala Bhawan, 5/9, Jaiganj Rd., Aligarh 202001.

Manufacturers' Organisation, All India, J. Nehru Marg, P. Box 45, Navyug Mkt., Ghaziabad 201001

Metallic Yarn Mfrs. Assocn., 37/120, Jagannath Puri, Rathyatra, Varanasi 221001

Motor Industries Assocn., U.P., Allied Motors P. Ltd., Hazratganj, Lucknow 226001.

Non-Ferrous Mfrs. Assocn., Mirzapur, Durgadevi, Mirzapur 231001.

Newspapers Fedn., All India Small & Medium, 104A/198, Rambagh, Kanpur 208012.

Oil Millers' Assocn., U. P., 52-10, Collectorganj, Kanpur 208001.

Pharmaceutical Assocn., Indian, Deptt. of Pharmaceuticals, Banaras Hindu Univ., Varanasi 221005.

Printers Assocn., Lucknow, 50, Gautam Buddha Mrg., Lucknow 226001.

Productivity Council, Eastern U.P., Shahi Bldg., Cinema Rd., Golgha, Gorakhpur 273001.

Productivity Council, National, 7/155, Swarup Nagar, Kanpur 208002.

Productivity Council, Western U.P., 46/16, Kalyani, Civil Lines, Meerut 250001.

Publishers' Assocn., Uttar Pradesh, 119, Swami Vivekanand Mrg., Allahabad 211003.

Rubber Goods Mfrs. Assocn., 101-A, Ajmer Rd., Agra Cantt. 282001.

Scientific Dealers and Makers Assocn., U.P., C/o Superior Scientific Stores, 109/221, Jawahar Nagar, Kanpur 208012.

Scissors Assocn., C/o Rafi Scissors Works, Sabungran, Pairamal Ka Bazar, Meerut City 250002.

Shoe Factories Fedn., Agra, Shoe Centre Bldg., Hing-ki-Mandi, Agra 282001.

Shoe Mfrs. Assocn., Agra, 4/102-103, Bidyut Nagar, Dayal Bagh, Agra 282001.

Small Cottage Inds. Assocn. of U.P., Fedn. of, D-16, Vivekanandpuri, Lucknow 226007.

Soap Industry Assocn., U.P. Small Scale, Nihal Singh Mkt., Ashok Nagar, G.T. Rd., Kanpur 208012.

Steel Wire Mfrs. Assocn. of Northen India, 117/491, Pandu Nagar, Kanpur 208001.

Sugar Exchange Limited, Upper India, 51/58, Collectorganj, Kanpur 208001.

Sugar Factories Fedn. Ltd., U.P. Co-op., 9-A, Rana Pratap Mrg., Lucknow 226001.

Sugar Mills Assocn., U.P., 47/2 Kabir Mrg., Lucknow 226001.

Tanners' Fedn. of India, 14/69, Civil Lines, Kanpur 208001.

Textile Assocn., India, (U.P. Branch), 14/1, Civil Lines, Kanpur 208001.

Utensils Mfrs. Assocn., Bell Metal, Mirzapur 231001.

CULTURAL, SOCIAL AND PROFESSIONAL

Ambulance Assocn., St. John, Red Cross Bldg., Raja Nawab Ali Rd., Lucknow 226001.

Ceramic Socy., Indian, Banaras Hindu Univ., Varanasi 221005.

Chartered Accountants of India, Instt of, 16/77, Civil Lines, Katchehri Rd., Kanpur 208001.

Cheshire Homes India, 16, Pritam Rd.,Dehra Dun 248001.
Homes: Bangalore, Vadodara, Bombay, Burnpur, Calcutta, Cochin, Lucknow, Nagercoil, Coimbatore, Delhi, Dehra Dun, Jamshedpur, Katpadi, Madras, Mangalore, Pune, Ranchi & Madurai.

Crime Prevention Socy., All India, Behari Niwas, Kanpur and Balaganj, Lucknow 226001.

Dharma Peetha, Board of Kashi, D35/87, Jangombari, Varanasi 221001.

Divine Life Society, P.O. Sivanandanagar, 249192 Tehri-Garhwal Dist.

Earthquake Technology, Indian Socy. of, Roorkee 247667.

Educational Assocns., All India Fedn. of, Jha Seshadri Khattry Bhawan, Kanpur 208001.

Engineers (India), Insttn. of, Teliarganj, Allahabad 221004.

Ethnographic & Folk Culture Socy., C-861, Sector 'C', Mahanagar, P. Box 209, Lucknow 226006.

Extra-Mural Studies, Instt. of, Kunwar Mohabbat Rai Rd., Lucknow 226003.

Family Planning Assocn. of India, 27, Dr. B. N. Verma Rd., Lucknow 226001.

Foresters, Socy. of Indian, P.O. New Forest, Dehra Dun 248006.

Geographical Socy. of India, National Banaras Hindu Univ., Varanasi 221005.

Geohydrologists, Indian Association of, Geological Survey of India, 1, Gokhale Mrg., Lucknow 226001.

Graphical Workers, Indian Federation of, Rose Bldg., Subhash Rd., Aligarh 202001.

Indo-American Friendship Assocn., Rose Bldg., Subhash Rd., Aligarh 202001.

Mahila Ashram, (Home for Women in distress run by Municipal Corpn.), Motinagar, Lucknow 226001.

Materials Management, Indian Assocn. of, C/o J. K. Cotton Spg. & Wvg. Mills Co. Ltd., L. Kamlapat Rd., Kanpur 208012.

Medical Assocn., Indian, 24/66, Birhana Rd., Kanpur 208001.

Meditation, International Foundation of, 44, Kailash, Post Box No. 31, Kanpur 208001.

Nature Cure Assocn., All India, 52, Gwynne Rd., Lucknow 226001.

Numismatic Socy. of India, Benaras Hindu Univ., Varanasi 221005.

Oil Assocn. of India, Essential, H. B. Technological Instt., Kanpur 208002.

Oil Technologists' Assocn. of India, Ganesh Flour Mills Co. Ltd., Kalpi Rd., Kanpur 208012.

Palaeontological Socy. of India, 98, M. Gandhi Rd., Lucknow 226001.

Pharmaceutical Assocn., Indian, 22-B, Church Lane, Allahabad 211002.

Productivity & Management, Instt. of, 46/16, Kalyani, Civil Lines, Meerut 250001.

Pulp & Paper Technical Assocn., Indian, Instt. of Paper Technology Campus, Saharanpur 247001.

Ramkrishna Mission Sevashram, Vivekananda Puri, Lucknow 226007.

Red Cross Socy., Indian, Red Cross Bldg., Raja Nawab Ali Rd., Lucknow 226001.

Scouts and Guides, Bharat, 109/1, Katra Rd., Allahabad 211001.

Seva Samiti, All India, Seva Samiti Bldgs., Seva Samiti Rd., Ram Bagh, Allahabad 211003.

Social Welfare, Indian Council of, C/o Gandhian Instt. of Studies, P. B. No. 116, Rajghat, Varanasi 221001.

Sugar Technologists' Assocn. of India, P. O. N.S.I., Kalyanpur, Kanpur 208017.

Theosophical Socy., U.P. Fedn. of, 12, Huntley House, Mahatma Gandhi Rd., Agra 282002.

Vedic Sadhan Ashram, P. O. Tapovan, Dehra Dun 248001.

Wild Life Preservation Socy. of India, 7, Astley Hall, Dehra Dun 248001.

Zoology, Academy of, Khandari Rd., Agra 282002.

Zootomical Socy. of India, Banaras Hindu Univ., Varanasi 221005.

WEST BENGAL

COMMERCIAL

Acid & Chemical Mfrs. Assocn. Ltd., 78B, Manicktala St., Calcutta 700006.

Air-Conditioning & Refrigeration Assocn., Eastern India, C/o Century Components Co. P. Ltd., A/2C, Kyd St., Calcutta 700016.

Aluminium Rollers' and Fabricators' Assocn., Eastern, 23A, Netaji Subhas Rd., Calcutta 700001.

Animal Feed Mfrs. Assocn. of Eastern India, 8, Old Court House St., Calcutta 700001.

Arts & Crafts Exporters' Assocn., Indian, 9B, Chowringhee Place, Calcutta 700013.

Automatic Mfrs.' Assocn. of Eastern India, 13, Ballygunge, Circular Rd., Calcutta 700019.

Automotive Mfrs.' Assocn. of India, India Exchange, India Exchange Place, Calcutta 700001.

Ball Bearing Merchants Assocn. of Eastern India, 67A, Netaji Subhas Rd., Calcutta 700001.

Ball and Roller Bearing Mfrs.' Assocn. of India, 3A, Shakespeare Sarani, Calcutta 700071.

Banks Assocn. Indian, Hong Kong House, B. B. Dinesh Bagh, Calcutta 700001.

Battery Mfrs.' Assocn. Indian, 23, R. N. Mookerjee Rd., Calcutta 700001.

Battery Mfrs.' Assocn., Indian Small Scale Storage, P-31, C.I.T. Rd., Entally, Calcutta 700014.

Belting Industries Assocn., Indigenous, 23, R. N. Mookerjee Rd., Calcutta 700001.

Bolt and Nut Dealers' Assocn., East Indian, P6, Kalakar St., Calcutta 700007.

Bucket Mfts.' Assocn. of India, 6, 2nd Floor, N. Subhas Rd., Calcutta 700001.

Builders' Assocn. of India (Eastern Centre), 76, Ashutosh Mukherjee Rd., Calcutta 700025.

Builders' Hardware Industries Assocn. of India, India Exchange, 7th Floor, Calcutta 700001.

Cabinet Makers' and Furnishers' Assocn., Calcutta, 66, B. B. Ganguly St., Calcutta 700012.

Cable and Conductor Mfrs.' Assocn. of India, 2A, Shakespeare Sarani, Calcutta 700016.

Candle Mfrs. Assocn., West Bengal Small Scale, 3/2B, Gupta Lane, Calcutta 700006.

Carpet Mfrs. Assocn., Indian, 9B, Chowringhee Place, Calcutta 700013.

Ceramic Development Assocn., Indian, India Exchange, Calcutta 700001.'

Chain Assocn., All India, 29-B, Bentinck St., Calcutta 700001.

Chemical Mfrs. Assocn., Indian, India Exchange, India Exchange Place, Calcutta 700001.

Clearing Agents' Assocn., Calcutta, 23, R. N. Mookerjee Rd., Calcutta 700001.

Coal Traders' Assocn., 1/1, Vansittart Row, Calcutta 700001.

Coir Mktg. Socy. Ltd., Cochin Central Co-op., 5, Amratolla Lane, Calcutta 700001.

Cold Storage Assocn., West Bengal, 8, Old Court House St., Calcutta 700001.

Corrugated Box Mfrs.' Assocn., Eastern India, 41, Chowringhee Rd., Calcutta 700071

Cycle Traders' Assocn., Indian, 67, Bentinck St., Calcutta 700001.

Cycle Tyre & Component Mfrs. Assocn., C/o Balaji Udyog, 3, Bentinck St., Calcutta 700001.

Earthmoving Equipment Parts Assocn. of Eastern India, 10/1, Princep St., Calcutta 700013.

Electrical Contractors Assocn. of India, 23, R. N. Mukherjee Rd., Calcutta 700001.

Electrical Transmission Line Mfrs. Assocn., 30, Ganesh Ch. Ave., Calcutta 700013.

Electronic Industries Assocn., Small Scale, 8, Madan St., Calcutta 700001.

Employers' Assocn., Calcutta, India Exchange, India Exchange Place, Calcutta 700001.

Enamellers Assocn., Vitreous, C/o Sur Enamel & Stamping Works P. Ltd., 24, Dr. L. M. Bhattacharjee Rd., Calcutta 700014

Engine Mfrs. Assocn., West Bengal, 14, Ganesh Ch. Ave., Calcutta 700013

Engineering Industry, Assocn. of Indian, 6, Netaji Subhas Rd., Calcutta 700001.

Export & Import Trade Assocn., Calcutta, 6, Netaji Subhas Rd., Calcutta 700001

Exporters' Assocn., West Bengal, 8, Old Court House St., Calcutta 700001.

Fan Makers' Assocn. of India, India Exchange, India Exchange Place, Calcutta 700001

Fasteners Assocn. of India, Industrial, India Exchange, 2nd Floor, Calcutta 700001.

Fertiliser Assocn. of India (Eastern Regnl. Branch), 10A, Ho Chi Minh Sarani, Calcutta 700071.

Foundry Assocn., Indian, India Exchange, 7th Floor, India Exchange Place, Calcutta 700001.

Freight Brokers' Assocn., Calcutta, Royal Exchange, 6, Netaji Subhas Rd., Calcutta 700001.

Galvanised Sheet Merchants Assocn., 20, Strand Rd., Calcutta 700001.

Garment Mfrs.' & Dealers' Assocn., West Bengal, 8, Old Court House St., Calcutta 700001.

Garments Mfrs. Assocn., West Bengal Small Scale, 167 M. Rashbehari Ave., Calcutta 700019.

Glass Bottle and Cork Merchants' Assocn., Calcutta, 6, Ezra St., Calcutta 700001.

Glass Mfrs.' Assocn., Bengal, 23, R. N. Mookerjee Rd., Calcutta 700001.

Goods Transport Assocn., Calcutta, 43, Zakaria St., Calcutta 700073.

Gunny Trades Assocn., 5, Clive Row, P.O. Box 573, Calcutta 700001.

Handicraft Inds. Assocn., West Bengal, 18, Ballygunge Stn. Rd., Calcutta 700019.

Handloom Weavers Co-op. Society Ltd., West Bengal, 15, B. A. Chandra St., Calcutta 700072.

Hides and Skin Shippers' Assocn., Calcutta, 6, Netaji Subhas Rd., Calcutta 700001.

Home Industries Assocn., Bengal, 57, Chowringhee, Calcutta 700016.

Hosiery Assocn., West Bengal, 28, Hemanta Bose Sarani, Calcutta 700001.

Hosiery Mfrs.' Assocn., Bengal, 219, Bepin Behari Ganguli St., Calcutta 700012.

Hotel and Restaurant Assocn. of Calcutta Region, Spences Hotel, 4, Wellesley Place, Calcutta 700001.

Hydraulic Press Assocn., Calcutta, 6, Netaji Subhas Rd., Calcutta 700001.

Import & Export Trade Assocn., Calcutta, 6, N. Subhas Rd., Royal Exchange, Calcutta 700001.

Iron and Steel Scrap Dealers' Assocn., W. Bengal, 66, Bentinck St., Calcutta 700001

Jute & Hessian Exchange Ltd., East India, 43, Netaji Subhas Rd., Calcutta 700001

Jute Mfrs.' Devpt. Council, 25, Camac St., 6th Flr., Calcutta 700016.

Jute Mills Assocn., Indian, Royal Exchange, 9, N. Subhas Rd., Calcutta 700001.

Kapok Mills Assocn., Indian, 16, Satyanarain Temple Rd., Salkia, Howarh 711106

Lac Exporters' Assocn., Indian, 6, Netaji Subhas Rd., Calcutta 700001

Lamp Factories Assocn., Indian, 23, R. N. Mookerjee Rd., Calcutta 700001

Lantern Mfrs. Assocn., India Exchange, 7th Floor, Calcutta 700001.

Leather Goods Mfrs. Assocn., Eastern, 4, Tollee Lane, Calcutta 700001.

Leather & Leather Goods Mfrs. Assocn., Calcutta, 102, Raja Basanta Roy Rd., Calcutta 700029

Machinery Dealers' Assocn., Calcutta 3/1/2, Armenian St., Calcutta 700001.

Magnet Wires and Cables Mfrs. Assocn., C/o Electrical Industries Corpn., 49/1, Gariahat Rd., Calcutta 700019.

Manufacturers' Organisation, All India (West Bengal State Board), Ilaco House, 1 & 3, Brabourne Rd., Calcutta 700001.

Marine Service Contractors' Assocn., P-11, Mission Row Extn., Calcutta 700001.

Master Printers' Assocn., Ltd., W. Bengal, 32/1A, Creek Lane, Calcutta 700014.

Metal Merchants' Assocn. East India, 8, Old Court House St., Calcutta 700001.

Metals Mfrs. Assocn., Indian Non-Ferrous, India Exchange, 4, India Exchange Place, Calcutta 700001.

Millowners' Assocn., Bengal, 2, Church Lane, Calcutta 700001.

Mining Assocn., Indian, 6, Netaji Subhas Rd., Calcutta 700001.

Monograph Assocn. of India, 3, British Indian St., Calcutta 700001.

Motion Pictures Assocn., Eastern India, 98F, Chowringhee Square, Calcutta 700013.

Motor Industries Assocn., 6, Netaji Subhas Rd., Calcutta 700001.

Non-Ferrous Industries Assocn., Small Scale, 23, R. N. Mookerjee Rd., Calcutta 700001.

Oil Millers' Assocn., East India, 8, Old Court House St., Calcutta 700001.

Paint Assocn., Indian, India Exchange, India Exchange Place, Calcutta 700001.

Paper Machinery Mfrs. Assocn., 6, Netaji Subhas Rd., Calcutta 700001.

Paper Makers' Assocn., Indian, 6, Netaji Subhas Rd., Calcutta 700001.

Paper Mills Assocn., Indian, India Exchange, India Exchange Place, Calcutta 700001.

Petroleum Traders, Fedn. of All India, 1/1, Vansittart Row, Calcutta 700001.

Pharmaceutical Assocn., Indian, 84, Chowringhee Rd., Calcutta 700020.

Photographic Traders' Assocn., East India, 3/1/2, Armenian St., Calcutta 700001.

Pipe & Fittings Mfrs. Assocn., Indian, 21B, Canning St., Calcutta 700001.

Pipe Mfrs.' Assocn., Cast Iron Spun, 6, N. Subhas Rd., Calcutta 700001.

Plastic Mfrs. Assocn., Small Scale, 2, Ganesh Ch. Ave., Calcutta 700013.

Plastics Fedn., Indian, 13/A, Govt. Place East, Calcutta 700069.

Plywood Mfrs.' Assocn., of India, 23, R. N. Mookerjee Rd., Calcutta 700001.

Plywood Mfrs.' Assocn. of West Bengal, 22, Strand Rd., Calcutta 700001.

Porcelain Enamellers Assocn., 28/8, Ganahat Rd., Calcutta 700029.

Pottery Mfrs.' Assocn., All India, C/o A.I.M.O., Ilaco House, 1 & 3, Brabourne Rd., Calcutta 700001.

Poultry Industry, Eastern India Assocn. of, 57-B, Townsend Rd., Calcutta 700025.

Powerloom Co-op. Socy. Assocn., West Bengal State, P/21/B, Old Ballygunj Le., Calcutta 700019.

Powerloom Owners' Assocn., 8, Old Court House St., Calcutta 700001.

Printers Assocn., All Bengal, 66, Grey St., Calcutta 700006.

Printers' Assocn., Bengal, 32, Acharya Prafulla Chandra Rd., Calcutta 700009.

Productivity Council, Calcutta (National), 9, Syed Amir Ali Ave., Calcutta 700019.

Publishers' & Booksellers' Assocn. of Bengal, 93. Mahatma Gandhi Rd., Calcutta 700007.

Publishers & Booksellers Guild, 5A. Bhawani Dutt Lane. Calcutta 700073.

Radio & Electronics Assocn., All India, 3/B. Madan St., Calcutta 700013.

Re-Rolling Mills Assocn. of India, 'Everest'. 10th Flr., 46/C. Chowringhee Rd., Calcutta 700071.

Refractory Makers' Assocn., Indian, 6. Netaji Subhas Rd., Calcutta 700001.

Refrigeration Traders' Assocn., C/o Air Conditioning Corpn. Ltd., 17. Taratolla Rd., Calcutta 700053.

River Transport Assocn., Calcutta, 6. Netaji Subhas Rd., Calcutta 700001.

River Transport Assocn., Ltd., 9/12. Lall Bazar St., Calcutta 700001.

Rolling Mills Assocn., West Bengal, 3/1/2. Armenian St., Calcutta 700001.

Rope Mfrs. Assocn., Indian, India Exchange. India Exchange Place. Calcutta 700001.

Rubber Industries Assocn., All India, 7. Waterloo St., Calcutta 700069.

Rubber Inds. Assocn. of India, Small Scale, 5. Prafulla Sarkar St., Calcutta 700013

Salt Assocn., Ltd., Calcutta. 11. Chittaranjan Ave., Calcutta 700001.

Saw Mills' Assocn. of Eastern India, 23. R. N. Mookerjee Rd., Calcutta 700001.

Screw Mfrs. Assocn., Precision, 3A. Balaram Dey St., Calcutta 700006.

Sea Shell Industries Assocn., 113. Keshab Sen St., Calcutta 700009.

Share & Stock Exchange Assocn., Ltd., Bengal, 21B. B. R. B. Basu Rd., Calcutta 700001.

Shipowners Assocn., Indian Small, 23. R. N. Mookerjee Rd., Calcutta 700001.

Silicate Mfrs. Assocn., All India, 1A. S. N. Banerjee Rd., Calcutta 700013.

Silk Assocn. of India, 8. Old Court House St., Calcutta 700001.

Skins & Leather Assocn., Indian, 6. Netaji Subhas Rd., Calcutta 700001.

Small Industries, (Eastern Region), Fedn. of Assocns. of, P31. CIT Rd., Calcutta 700014.

Small and Medium Industries Fedn., West Bengal, P-11. Mission Row Extn., Calcutta 700001.

Soap Makers' Assocn., Eastern Small Scale, 19. Chandni Chowk St., Calcutta 700013.

Soap and Toiletries Makers' Assocn., Indian, 23. R. N. Mookerjee Rd., Calcutta 700001.

Stationery and Office Equipment Assocn. of India, 23. R. N. Mookerjee Rd., Calcutta 700001.

Steel Exporters' Assocn., 10. Camac St., Calcutta 700017.

Steel Fabricators & Distributors, Assocn. of, 46C. Chowringhee Rd., Calcutta 700012.

Steel Furnace Assocn. of India, 1-A. Mona Lisa. 17. Camac St., Calcutta 700001.

Steel Merchants' Assocn. of India, India Exchange. 8th Flr.. 4. I. E. Place. Calcutta 700001.

Steel Re-Rollers' Assocn., All India, 6. 2nd Flr., N. Subhas Rd., Calcutta 700001.

Stevedores' Assocn., Master, 6. Netaji Subhas Rd., Calcutta 700001.

Stock Exchange Assocn. Ltd., Calcutta, 7. Lyons Range. Calcutta 700001.

Strawboard Mfrs.' Assocn., Indian, 8. Old Court House St., Calcutta 700001.

Sugar Mills Assocn., Indian, India Exchange. Calcutta 700001.

Tea Assocn., Indian, Royal Exchange. 6. Netaji Subhas Rd., Calcutta 700001.

Tea Assocn. of India, 4. India Exchange. India Exchange Place, Calcutta 700001.

Tea Exporters Assocn., 23. R. N. Mookerjee Rd., Calcutta 700001.

Textile Assocn. (India), 1/1A. Dr. Amal Roychowdhury Lane. Calcutta 700009.

Tool Mfrs. Assonc., Small, 5. Clive Row (Room No. 4). Calcutta 700001.

Toy Industries Assocn., Small Scale, 8/36. Fern Rd., Calcutta 700019

Welding Dealers' Assonc., Indian, 3/1/2. Armenian St., Calcutta 700001.

Wire Industries Assocn., Indian, 222. Rabindra Sarani. Calcutta 700007.

Wire Rope Mfrs.' Assocn., Indian, 6. N. Subhas Rd., Calcutta 700001.

Yarn Merchants' Assocn., Calcutta, 89. Cross St., Calcutta 700007

Zinc Oxide Mfrs.' Assocn., Indian, India Exchange. India Exchange Place. Calcutta 700001.

CULTURAL, SOCIAL AND PROFESSIONAL

Agri-Horticultural Socy. of India, 1. Alipore Rd., Calcutta 700027.

Agricultural Socy. of India, 35. Ballygunge Circular Rd., Calcutta 700019.

Animals Socy., All Lover of, 30. Chowringhee Mansions. Kyd St., Calcutta 700016.

Anthropological Socy., Indian, C/o Anthropological Survey of India. 27. J.L. Nehru Mrg., Calcutta 700013.

Arya Samiti, Arya Samiti Rd., Behala. Calcutta 700034.

Astrological Assocn. of India, 45A. S. P. Mukherjee Rd., Calcutta 700026.

Astrological and Astronomical Socy., All India, 88/2A. R. A. Kidwai Rd., Calcutta 700013.

Bible Socy. of India and Ceylon, 23. J. L. Nehru Rd., Calcutta 700013.

Billiards Assocn. and Control Council of India, C/o Great Eastern Hotel. Old Court House St., Calcutta 700001.

Biological Science, Indian Assocn. of, Life Science Centre. Calcutta Univ., 35. Ballygunge Circular Rd., Calcutta 700019.

Biophysical Socy., Indian (IBS), Saha Instt. of Nuclear Physics. 92. A. Prafulla Chandra Rd., Calcutta 700009.

Blood Bank, Calcutta, 186. Rash Behari Ave., Calcutta 700029.

Bohurupee, 7. Lower Ring. Calcutta 700017.

Botanical Socy. of Bengal, 35. Ballygunge Circular Rd., Calcutta 700019.

Buddhist Assocn., Bengal, 1. Buddhist Temple St., Calcutta 700001.

Buddhist Socy. of India and Buddhist Mission of India, 131/1 Baghbazar St., Calcutta 700003.

Cardiological Socy. of India, 3. Creek Row. Calcutta 700014.

Ceramic Socy., Indian, Central Glass & Ceramic Research Institute. Calcutta 700032.

Ceramics, Indian Instt. of, C/o Central Glass & Ceramic Research Instt., Calcutta 700032.

Chartered Accountants of India, Instt. of, 7. Russel St., Calcutta 700071.

Chemical Engineers, Indian Instt. of, Dr. H.L. Roy Bldg., Raja S. C. Mullick Rd., Calcutta 700032.

Chemical Socy., Indian, 92. Acharya Prafulla Chandra Rd., Calcutta 700009.

Chemists (India), Insttn. of, Chemical Dept., Medical College, Calcutta 700012

Child Health & Community Welfare, Socy. for, 13D, Beadon St., Calcutta 700006

Children in India, Socy. for the Protection of, 2B, Camac St., Calcutta 700016

Company Secretaries of India, Instt. of (Eastern India Regnl. Council), Everest House, 46C, Chowringhee Rd., Calcutta 700071

Consulting Engineers, Instt. of, 9, Hastings St., Calcutta 700001.

Consumers' Assocn., 64/1, Tollygunge Circular Rd., Calcutta 700053

Costs and Works Accountants of India, Instt. of, 12, Sudder St., Calcutta 700016

Dakshinee, 'Dakshinee Bhavan', 1, Deshapriya Park West, Calcutta 700026

Economic Affairs, Indian Council of, 1 & 2, Hare St., Calcutta 700001

Electron Microscope Socy. of India (EMSI), Biophysics Laboratory, 37, Belgachia Rd., Calcutta 700037.

Engineers, Assocn. of, 24, Netaji Subhas Rd., Calcuta 700001.

Engineers, Indian Socy. of, 16, Indian Exchange Place, Calcutta 700001

Engineers (India), Insttn. of, 8, Gokhale Rd., Calcutta 700020.

Eye Bank, International, 6, Prafulla Sarkar St., Calcutta 700016.

Film Societies of India, Fedn. of, C7/3, Chittaranjan Avenue, Calcutta 700072.

Folklore Socy.,Indian, 11/1, Sooterkin St., Calcutta 700013.

Football Assocn., Indian, 11/1, Sooterkin St., Calcutta 700013

Foundrymen, Instt. of Indian, 4/2, Middleton St., Calcutta 700071.

Free Enterprise, Forum of, 38/2, Nirmal Chandra St., Calcutta 700013.

Fuel, Indian Instt. of, 2F, Raishree, 6, Hastings Rd., Calcutta 700027.

Gaudiya Mission, Sri Gaudiya Math, 16A, Kali Prasad Chakravarthy St., Calcutta 700003.

Geographical Socy., of India, 35, Ballygunge Circular Rd., Calcutta 700019.

Geohydrologists, Indian Assocn. of, C/o Central Ground Water Board, 24, Park St., Calcutta 700016.

Geological, Mining and Metallurgical Socy. of India, Geology Dept., Calcutta Univ., Calcutta 700019.

Hindu Satkar Samity, 93, Mahatma Gandhi Rd., Calcutta 700007. A Society for cremating dead bodies of poor and friendless Hindus.

Homoeopathic Medical Assocn. of India, 77, B. B. Ganguli St., Calcutta 700012.

Horsemastership, Indian Socy. of Equitation &, Ballygunge Military Camp, Ballygunge Circular Rd., Calcutta 700019.

Indo-GDR Friendship Socy., 27G, College St., Calcutta 700073.

Indo-Soviet Cultural Socy., 77, Lenin Sarani, Calcutta 700013.

Industrial Engineers (India), Insttn. of, Calcutta Technical School, 110, S. N. Banerjee Rd., Calcutta 700013.

Industrial Welfare Instt., Indian, 19, Gariahat Rd., Calcutta 700019.

Instrumentation Scientists & Technologists (India), Insttn. of, Deptt. of Electl. Engg., Jadavpur Univ., Calcutta 700032.

Insurance Instt., Indian, 8, Madan St., Calcutta 700013.

Iran Socy., 12, Dr. M. Ishaque St., Calcutta 700016.

Journalists' Assocn., Indian, 249-B, B. B. Ganguly St., Calcutta 700012.

Labour Welfare Board, West Bengal, 6, Church Lane, Calcutta 700001.

Law Instt. (W. Bengal Unit), Indian, 2 & 3 K. S. Roy Rd., Calcutta 700001

Leather Technologists' Assonc., Indian, Mercantile Bldgs., Lall Bazar, Calcutta 700001

Legal Aid Socy. Indian, 2, Canal St., Calcutta 700014.

Library Assocn., Bengal, P/134, CIT Scheme, Calcutta 700014.

Maha Bodi Socy. of India, 4-A, Bankim Chatterji St., Calcutta 700073. *Centres:* Sarnath, Buddha Gaya, New Delhi, Madras, Lucknow, Nowgong, Ajmer, Sanchi, Bangalore, Bhubaneswar. Monthly Journal: *The Maha Bodhi.*

Mahila Seva Samity, 8, Government Place (N), Calcutta 700001.

Management Assocn., Calcutta, 1, Shakespeare Sarani, Calcutta 700016.

Manimela Mahakendra, Rabindra Sarobar Stadium Block 11, Room V, Calcutta 700029. A child welfare agency.

Marwari Fedn., All India, 152-B, M. Gandhi Rd., Calcutta 700007.

Materials Management, Indian Assocn. of, 8B, Short St., Calcutta 700017.

Mathematical Assocn., Deptt. of Mathematics, Jadavpur Univ., Calcutta 700032.

Mathematical Socy., Calcutta, 92, Acharya P. Chandra Rd., Calcutta 700009.

Medical Assocn., Indian, W. Bengal State Branch, 67, Lenin Sarani, Calcutta 700013.

Medical Council, West Bengal, 8, Lyons Range, Calcutta 700001.

Metals, Indian Instt. of, 2, Sambhunath Pandit St., Calcutta 700020.

Mining, Geological and Metallurgical Instt. of India, 29, Chowringhee Rd., Calcutta 700016.

Moral & Social Hygiene, Assocn. for, 402/1A, N.S.C. Bose Rd., Calcutta 700047

Mountaineering—Parvat Abhiyatri Sangh (Himalayan Climbers' Club), Anand Bazar Patrika House, 6, P.Sarkar St., Calcutta 700001.

Nursing Council, West Bengal, 8, Lyons Range, Calcutta 700001.

O & M Work Study Practitioners, Instt. of, C/o Management Development Centre, 1, Shakespeare Sarani, Calcutta 700071.

Operational Research Socy. of India, 9/3, Mandeville Gardens, Calcutta 700019.

P. E. N. All India Writers' Assocn. (W. Bengal Branch), 72, Hindustan Park, Calcutta 700029.

Personnel Management, National Instt. of, Appeejay House, Block-B, Park St., Calcutta 700016.

Philosophical Congress, Indian, Visva Bharati University, Santiniketan 731235.

Pharmacy Council, West Bengal, 8, Lyons Range, Calcutta 700001.

Photobiology Group (IPB), Indian, Deptt. of Chemistry, Jadavpur Univ., Calcutta 700032.

Photography, Indian Instt. of, 32, A. M. Rd., Calcutta 700020.

Physical Culture Assocn., All Bengal, 5, Krishna Biharisen St., Calcutta 700007.

Physical Education & Recreation, National Assocn. of, 24C, Amherst Row, Calcutta 700073

Pinjrapole Socy., Calcutta, 34, Armenian St., Calcutta 700001.

Productivity, Quality & Reliability, Indian Assocn. for, C/o Deptt. of Stats., Calcutta Univ., 35, Ballygunge, Circular Rd., Calcutta 700019.

Psycho-Analytical Socy., 14, Parsibagan Lane, Calcutta 700002.

Psychotherapeutical Socy., Indian, Sch. 49, P-23, CIT Rd., Calcutta 700014.

Public Health Assocn., Indian, 110, Chittaranjan Ave., Calcutta 700012.

Quality Control, Indian Socy. for, Indian Exchange, 7th Floor, Calcutta 700001.

Ramakrishna Math and Mission, P.O. Belur Math. 711202. Howrah Dist.

Red Cross Socy., Indian (W. Bengal State Branch), 5 & 6, Govt. Place North, Calcutta 700001.

Relief Socy., Bengal, 36, M. G. Rd., Calcutta 700007.

Road Transport, Indian Instt. of, 1/2, Lord Sinha Rd., Calcutta 700016.

Roads & Transport Devpt. Assocn., Indian, 1, Chowringhee Terrace, Calcutta 700016.

Safety First Assocn. of India (Bengal Provincial Branch), 77A, Park St., Calcutta 700016.

Salvation Army, 37, Lenin Sarani, Calcutta 700013.

Science, Indian Assocn. for the Cultivation of, 2A & 2B, R.S.C. Mullick Rd., Jadavpur, Calcutta 700032.

Science Congress Assocn., Indian, 14, Dr. B. Guha St., Calcutta 700017.

Science Musecums, National Council of, 19A, Gurusaday Rd., Calcutta 700019.

Scouts and Guides, Bharat, 5, Govt. Place North, Calcutta 700001

Seamen of India, National Union of, 10/2, Kabitirtha Sarani, Calcutta 700023.

Secretaries, Instt. of Chartered (India Association), C/o Wellman Incandescent India Ltd., 8, Harrington St., Calcutta 700016.

Sevak Samaj, Bharat, 33, B. K. Paul Ave., Calcutta 700005.

Shishu Niketan, 32/10 A, Beadon St., Calcutta 700006.

Social Welfare, Indian Council of, C/o Viharilal Coll. of Home & Social Science, Alipore, Calcutta 700027

Special Liberaries & Information Centres (IASLIC), Indian Association of, P-291, CIT Scheme 6M, Kankuragachi, Calcutta 700054.

Sports-West Bengal State Council of, 8, Lyons Range, Calcutta 700001

St. John's Ambulance Brigade, 5, Govt. Place North, Calcutta 700001.

Statistical Assocn., Calcutta, 35, Ballygunge Circular Rd., Calcutta 700019

Swimming Assocn., National, Pavillion, Azad Hind Bagh, Calcutta 700006.

Table Tennis Assocn., Bengal, 34/1, Lala Lajpatrai Sarani, Calcutta 700020.

Tamil Sangham, Bharathi, 93-A, Rashbehari Ave., Calcutta 700026

Teachers' Assocn., All Bengal, 15, Bankim Chatterjee St., Calcutta 700073.

Teachers' Organisation, All India Fedn. of University & College, 89, M. Gandhi Rd., Calcutta 700007

Theoretical & Applied Mechanics, Indian Socy. of, Indian Institute of Technology, Kharagpur 721301.

Theosophical Fedn., Bengal, 4/3A, Bankim Chatterjee St., Calcutta 700073.

Theosophical Socy., 161, Acharya J. Bose Rd., Calcutta 700014

Tuberculosis Relief Assocn., 73, Dharamtolla St., Calcutta 700013.

United Kingdom Citizens' Assocn., 51, Chowringhee Rd., Calcutta 700016.

Vivekananda Mission, 10, Ramakrishna Lane, Baghbazar, Calcutta 700003.

Vivekananda Socy., 151, Vivekananda Rd., Calcutta 700006.

Women's Conference, All India, C.I.T. Scheme IV, Baliaghata Main Rd., Calcutta 700010.

Women's Union, All Bengal, 89, Elliot Rd., Calcutta 700016.

Writers' Guild, 5, Dwarakanath Tagore Lane, Calcutta 700007.

Y.M.C.A., 25, Chowringhee Rd., Calcutta 700013.

Youth Forum, National, 4, Syangogue St., Calcutta 700001.

Y.M.C.A., 25, Chowringhee Rd., Calcutta 700013.

Youth Forum, National, 4, Synagogue St., Calcutta 700001.

Y.W.C.A., 134, S. N. Banerjee Rd., Calcutta 700013.

Zoological Socy. of India, 34, Chittaranjan Ave., Calcutta 700012.

CHAMBERS OF COMMERCE

ANDHRA PRADESH

Amalapuram Chamber of Commerce and Industry, Amalapuram 533201. (East Godavari Dist.).

Andhra Chamber of Commerce, 68-B, Rashtrapati Rd., Secundrabad 500003.

Andhra Film Chamber of Commerce, Andhraratna Rd., Gandhinagram, Vijayawada 520003.

Bhimavaram Chamber of Commerce, Bhimavaram 534201.

Chamber of Commerce, Main Rd., Vizianagaram 531201.

Cocanada Chamber of Commerce, Commercial Rd., Kakinada 533001.

Federation of Andhra Pradesh Chambers of Commerce & Industry, 11-6-841, Red Hills, Post Box No. 14, Hyderabad 500004. *Pres.:* J. S. Krishnamurty; *Secy.:* M. Venkata Rao.

Godavari Chamber of Commerce, Vallabhbhai St., Kakinada 533001.

Gouthami Chamber of Commerce, Main Rd., Rajahmundry 533101.

Indian Chamber of Commerce, P. Box 67, Guntur 522001.

Mica Chamber of Commerce, Gudur 524104 (Nellore Dist.).

Nellore Chamber of Commerce, Tobacco Field, Nellore 524001.

Rajahmundry Chamber of Commerce Ltd., Khaidakotla St., Rajahmundry 533101.

Vijayawada Chamber of Commerce & Industry, 42, Kaleswararao Mkt., Vijayawada 520001.

Vizagapatam Chamber of Commerce, 25/8/170, Main Rd., Visakhapatnam 530001.

Warangal Chamber of Commerce, 29/67, Grain Mkt. Area, Warangal 506002.

West Godavari Fedn. of Chambers of Commerce & Industry, Plantains Bazar, Main Rd., Eluru 534001.

ASSAM & MEGHALAYA

Assam Chamber of Commerce, Bara Bazar Rd., Shillong 793002.

Assam Chamber of Commerce & Industry, Morello Bldg Shillong 793001.

Assam National Chamber of Commerce, C/o. Orient (India) Ltd. Ulubari, Gauhati 781007.

Kamrup Chamber of Commerce, Kamrup Chamber Rd., Gauhati 781001.

National Chamber of Commerce, B. I. Khemka Rd., Tinsukia 786125.

Nowgong Chamber of Commerce, Haibargaon, Nowgong 782001.

Upper Assam Chamber of Commerce, Jorhat 785001.

BIHAR

Bhagalpur Chamber of Commerce, Bhagalpur 812002

Bihar Chamber of Commerce, Judges' Court Rd., P.O. Box No. 71, Patna 800001. *Pres.:* U.P. Agarwal; *Secy.-Genl.:* S.K. Mehrotra.

Chotanagpur Chamber of Commerce & Industries, Main Rd., Ranchi 834001.

Jamshedpur Chamber of Commerce, 35, Laxmi Mansion Jamshedpur 831001.

Monghyr Chamber of Commerce, Bekapur Rd., Monghyr 811201.

North Bihar Chamber of Commerce & Industry, Muzaffarpur 842001

Patna Divisional Chamber of Commerce & Industry, S. P. Varma Rd Patna 800001.

DELHI

Associated Chamber of Commerce & Industry of India, Allahabad Bank Bldg., 17, Parliament St., New Delhi 110001. *Pres.:* Jahar Sengupta; *Alternate Pres.:* M. S. Patwardhan; *Secy.-Genl.:* Dr. D. N. Saxena.

Delhi Chamber of Commerce, Dilbar Bldg., Paharganj, New Delhi 110055.

Federation of Indian Chambers of Commerce & Industry, Federation House, Tansen Marg, New Delhi 110001. *Pres.:* Ramkrishna Bajaj; *Secy.-Genl.:* D. H. Pai Panandikar.

India-China Chamber of Commerce & Ind., 45, Thomson House, Rani Jhansi Rd., New Delhi 110055.

Indo-Amercian Chamber of Commerce (N. Indian Council), Phelps Bldg., 9-A, Connaught Place, New Delhi 110001.

Indo-German Chamber of Commerce, 8-FG, Himalaya House, 2, Kasturba Gandhi Mrg., New Delhi 110001.

Indo-Polish Chamber of Commerce, Phelps Bldg., Connaught Place, New Delhi 110001.

International Chamber of Commerce, Indian National Cttee., Federation House, New Delhi 110001.
Pres.: S. S. Kanoria; *Secy.-Genl.:* D. H. Pai Panandikar.

Punjab, Haryana and Delhi Chamber of Commerce & Industry, PHD House, 4/2, Siri Fort Insttnl. Area, Behind Hauz Khas, New Delhi 110016. *City Centre:* Phelps Bldg., 9A, Connaught Place, New Delhi 110001.
Pres.: K. K. Modi; *Vice-Pres.:* W. N. Talwar; *Secy-Genl.:* M. L. Nandrajog.

Punjab Merchants' Chamber, 45, Khurshid Mkt., Sadar Bazar, Delhi 110006.

United Chamber of Trade Associations, A. Chand Mrg., Katra Rathi, Delhi 110006.

GOA

Goa Chamber of Commerce & Industry, P. Box No. 59, Panaji 403001.

GUJARAT

All India Sindhi Chamber of Commerce & Industry, 6, Parasram Chambers Bldg., Mirghawad, Revdi Bazar, Ahmedabad 380001.

Broach Chamber of Commerce & Industry, Lallubhai Chakla, Bharuch 392001.

Central Gujarat Chamber of Commerce, Federation Bldg., Race Course Rd., Vadodara 390009.

Gandhidham Chamber of Commerce & Industry, BBZ-N-41, Gandhidham 370201.

Gujarat Chamber of Commerce & Industry, Gujarat Chamber Bldg., Ranchhodlal Marg., Ahmedabad 380009.
Pres: Nalin K. Patel; *Vice-Pres.:* A. Chimanbhai;. *Hon. Secy.:* Gautambhai V. Shah.

Junagadh Chamber of Commerce, Mahalaxmi St., Junagadh 362001.

Morvi Chamber of Commerce & Industries, P. Box No. 5, Morvi 363641.

Nawanagar Chamber of Commerce, Digvijaysingh Chamber Bldg., Grain Mkt., Jamnagar 361001.

Panchmahal Chamber of Commerce, Station Rd., Godhra 389001.

Porbandar Chamber of Commerce, Manek Chowk, Porbandar 365075.

Saurashtra Chamber of Commerce, Old Darbargadh, Bhavnagar 364001

Shri Zalawad Chamber of Commerce & Industries, Main Rd., Surendranagar 363001.

Southern Gujarat Chamber of Commerce & Industry, Samruddhi, Nanpura, Surat 395001.

HARYANA

Haryana Chamber of Commerce, Mandi Dabwali 125104 (Hissar Dist.).

Ludhiana Chamber of Commerce & Industry, E-23, Industrial Area, Yamunanagar 135001.

Northern India Chamber of Commerce, Desi Beopar Mandal, Ambala Cantt. 133001.

JAMMU & KASHMIR

Chamber of Commerce, Jammu 180001.

Kashmir Chamber of Commerce & Industry, Residency Rd., Srinagar 190001.

KARNATAKA

Asian Chamber of Commerce, "Dhammapada", 1st Main V Block, Kumara Park West, Bangalore 560020.

Bangalore Chamber of Commerce, 112, Gandhi Bazar, Bangalore 560004.

Belagaum Chamber of Commerce & Industries, 673, Raviwar Peth, Belgaum 590002.

Chamber of Commerce & Industry, Prabha Pictures House Bldg., Hanumantha Rao St., Mysore 570001.

Dharwar Chamber of Commerce, Dharwar 580001.

Federation of Karnataka Chambers of Commerce & Industry, Kempegowda Rd., Bangalore 560009. *Pres.:* B. C. S. Narayan; *Vice-Pres.:* J. A. K Murthy; *Secy.:* Prof. B. N. Narayan.

Hyderabad Karnataka Chamber of Commerce & Industry, No. 7-671, Nehru Ganj Rd., Gulbarga 585104.

Kanara Chamber of Commerce, P. Box No. 116, Bunder, Mangalore 575001. *Pres.:* Srinivasa V. Kudva; *Vice-Pres.:* U. Suresh Mallya; *Hon.-Secs.:* A. Raghavendra Rao, M. Yeshwanth Kamath.

Karnatak Chamber of Commerce & Industry, Jayachamaraj Nagar, Hubli 580020.
Pres.: L. V. Muddanna; *Vice-Pres.:* V. M. Mirji, S. I. Shettar, M. V. Shanbhag Burdekar; *Hon. Secy.:* K.B. Desai.

Udipi Chamber of Commerce, Ind. & Agriculture, Mukund Nivas, Udipi 576101.

KERALA

Calicut Chamber of Commerce & Industry, 4th Gate Rd., Calicut 673001.

Chamber of Commerce, Arecal Bldgs., M. C. Rd., Kottayam 686001.

Chamber of Commerce, Trichur 680001.

Chamber of Commerce, Chalai, Trivandrum 695001.

Cochin Chamber of Commerce & Industry, Bristow Rd., Willingdon Island, Cochin 682003. *Pres.:* Lt. Col. N. Vasudevan (Retd.); *Secy.:* P. Sethuram.

Ernakulam Chamber of Commerce, Chamber Bldg., Shanmukham Rd., Ernakulam 682011.

Indian Chamber of Commerce, Kottukulam Rd., P.O. Box No. 236, Cochin 682002. *Pres.:* V. P. Vijayan Menon; *Secy.:* M. A. Thomas.

Malabar Chamber of Commerce, Calicut 673001. *Press.:* P. V. Chandran; *Vice-Press.:* N. C. Shenoy, N. B. Krishna Kurup; *Hon. Secy.:* V. Hassan Koya.

North Malabar Chamber of Commerce, Fort Rd., Cannanore 670001.

North Travancore Chamber of Commerce, Bank of Alwaye Bldgs., Alwaye 683101.

Palghat Chamber of Commerce, XXVIII/153, Chamber Bldgs., Melamuri, Palghat 678014.

Travancore Chamber of Commerce, Alleppey 688001.

MADHYA PRADESH

Adiwasi Chamber of Commerce, Alirajpur 457887.

Bhilai Chamber of Commerce & Industry, Near Nehru Cultural Hall, Bhilai 490001.

Bhopal Chamber of Commerce & Industry, Bhopal 462001.

Central India Chamber of Commerce & Industry, Bambakhana, Ujjain 456001.

Chamber of Commerce, Ratlam 457001.

Federation of M.P. Chambers of Commerce & Industry, 33, Malaviyanagar, Bhopal 462003.

Madhya Pradesh Chamber of Commerce & Industry, Chamber Bhavan, Lashkar, Gwalior 474009. *Pres.:* D. P. Mandelia; *Jt. Pres.:* G. G. Bansal; *Vice-Pres.:* K. C. Kapoor; *Hon.Secy.:* R. K. Garg.

Mahakoshal Chamber of Commerce, Jawaharganj, Jabalpur 482002.

Malwa Chamber of Commerce, Cloth Mkt., 77, Sitlamata Bazar, Indore 452002.

Raipur Chamber of Commerce & Industry, Sadar Bazar, Raipur 492001.

MAHARASHTRA

Bombay

All India Exporters' Chamber, Janmabhoomi Chambers, Fort St., Bombay 400001.

Belgo-Indian Chamber of Commerce & Industry, Taj Bldg., 210, Dr. D. Naoroji Rd., Bombay 400001.

Bharat Merchants' Chamber, Bharat Chamber Bhavan, Kalbadevi Rd., Bombay 400002.

Bombay Chamber of Commerce & Industry, Mackinnon Mackenzie Bldg., B. Estate, Bombay 400038.
Pres.: Dr. A. S. Ganguly; *Vice-Pres.:* Ashok B. Garware; *Secy.:* B. P. Gunaji.

East India Chamber of Commerce Ltd., Patwa Chawl, Sheikh Memon St., Bombay 400002.

Federation of Indian Chamber of Commerce & Industry, 76, Veer Nariman Rd., Bombay 400020.

Handicraft Exports Chamber, Ganesh Bhuvan, 89A, Dadyseth Agiary St., Bombay 400002.

Hindustan Chamber of Commerce, 342, Kalbadevi Rd., Bombay 400002.

Indian Merchants' Chamber, 76, Veer Nariman Rd., Bombay 400020. *Pres:* Pranlal Bhogilal; *Vice-Pres.:* Ashok Birla; *Secy-Genl.:* Ramu Pandit.

Indo-American Chamber of Commerce, 1-C, Vulcan Insurance Building, Veer Nariman Rd., Bombay 400020. *Pres.:* Manmohan Singh; *Secy..-Genl.:* Dr. Arun C. Vakil.

Indo-Arab Chamber of Commerce & Industries, 108, Maker Chamber V, Ist Flr., 221, N. Point, Bombay 400021.

Indo-French Chamber of Commerce & Industry, Bakhtawar, 2nd Flr., Nariman Point, Bombay 400021.
Pres.: Harish Mahindra; *Vice-Press.:* S. P. Godrej, H. P. Nanda; *Vice-Pres: (France):* Michel Boulat; *Secy.-Genl.:* Minoo P. Vazifdar.

Indo-German Chamber of Commerce, Maker Tower E, Ist flr., Opp. World Trade Centre, Cuffe Parade, Bombay 400005. *Pres.:* N. M. Desai; *Vice-Pres.:* Dr. E. Baltin; *Exec. Dir.:* Dr. G. Krueger.

Iron, Steel & Hardware Merchants' & Manufacturers' Chamber of India, Loha Bhavan, P. D'Mello Rd., Bombay 400009.

Italian Chamber of Commerce for India, Vaswani Mansions, D. Vachha Rd., Bombay 400020.

Maharashtra Chamber of Commerce, 12, K. Dubash Mrg., Bombay 400023. *Pres.:* S. B. Garware; *Vice-Press.:* P. K. Dhamdhere, Arvind Desai, C. C. Shah.

Memon Chamber of Commerce, Patharia Palace, Mohamedali Rd., Bombay 400003.

Sindhi Chamber of Commerce & Industry, Garib CHS Ltd., 5th North South Rd., Bombay 400058.

Western India Chamber of Commerce Ltd., 232-234, Kalbadevi Rd., Bombay 400002.

Districts

Bhiwandi Chamber of Commerce & Industries, Ansari Baug, Anjurphata, Bhiwandi 421305.

Chamber of Commerce, Mkt. Yard, Sangli 416416.

Mahavidarbha Chamber of Commerce & Industry, Vohuman Lodge, Byramji Town, Nagpur 440013.

Mahratta Chamber of Commerce & Industries, Tilak Rd., Pune 411002.

Nagpur Chamber of Commerce Ltd., Cotton Mkt., Nagpur 440002.

Nag-Vidarbha Chamber of Commerce, Temple Rd., Civil Lines, Nagpur 440001.

Nasik District Chamber of Commerce, 986, Raviwar Peth, Nasik 422001.

Pune Merchants' Chamber, 180, Bhavani Peth, Pune 411002.

Solapur Chamber of Commerce, Siddheshwar Mkt., W. Mangalwar Peth, Solapur 413002.

Steel & Hardware Chamber of Vidarbha, Bhogilal Doshi Bldg., Near Amardeep Talkies, Paithankar Rd., Nagpur 440002.

Vidarbha Chamber of Commerce & Industry, Mangaldas Mkt., Akola 444001.

ORISSA

Berhampur Chamber of Commerce, Berhampur 760001. (Ganjam Dist.).

Cuttack Chamber of Commerce, Malgodown, Cuttack 753003.

Orissa Chamber of Commerce & Industry, Barbati Stadium, Cattack 753001.

Puri Chamber of Commerce, Ground Rd., Puri 752001.

Rourkela Chamber of Commerce, Kacheri Rd., Rourkela 769001.

Utkal Chamber of Commerce & Industry, Cantonment Rd., Cuttack 753001.

PONDICHERRY

Chamber de Commerce, No. 1, Rue Suffren, P. Box No. 39, Pondicherry 605001.

Chamber of Commerce, Post Box No. 26, Karikal 609602.

PUNJAB

Nothern India Chamber of Commerce & Industry, 1014, Sector 21B, Chandigarh 160017.

Punjab Federation of Industry & Commerce, Inside Hall Gate, Amritsar 143001.

RAJASTHAN

Bharatpur Chamber of Commerce & Industry, Nai Mandi Bharatpur 321001.

Bikaner Divisional Chamber of Commerce, Woollen Press Bldg., Ind. Area, Bikaner 334001.

Chamber of Commerce, Sadar Bazar, Bundi 323001.

Chamber of Commerce, Bara Bazar, Udaipur 313001.

Jaipur Chamber of Commerce & Industry, Johari Bazar, Jaipur 302003.

Marwar Chamber of Commerce, 5, Haider Bldgs., Sojati Gate, Jodhpur 342001.

Mewar Chamber of Commerce & Industry, Mansingka House, Opp. Rly. Goods Shed, Bhilwara 311001.

Rajasthan Chamber of Commerce & Industry, Rajasthan Chamber Bhavan, M. I. Rd., Jaipur 302003.
Pres.: S.K. Mansinghka; *Sr. V.Pres.:* Kushal Chand Surana; *Hon. Secy.:* K. L. Jain.

TAMIL NADU

Andhra Chamber of Commerce, 272/73, Angappa Naick St., Madras 600001.

Chamber of Commerce & Industries, 31, Maharnonbu Agraharam, Karaikudi 623001.

Coimbatore Chamber of Commerce, C/o T. Stanes & Co. Ltd., Race Course Rd., Coimbatore 641018.

Erode Chamber of Commerce, 189, Sathi Rd., Erode 638001.

Hindustan Chamber of Commerce, Hindustan Chamber Bldg., 8, Kondi Chetty St., Madras 600001.

Indian Chamber of Commerce & Industry, 6/83, Avanashi Rd., Coimbatore 641018.

Indian Chamber of Commerce, 84-B, South Raja St., Tuticorin 628001.

Indian Chamber of Commerce & Industry, 23, First Line Beach, Nagapattinam 611001.

Indo-American Chamber of Commerce, C/o Cheseborough-Ponds Inc., 19, Commander-in-Chief Rd., Madras 600008.

Indo-German Chamber of Commerce, 19, Cathedral Rd., Madras 600006.

Madras Chamber of Commerce & Industry, Dare House Annexe, 44, Moore St., Madras 600001. *Chmn.:* K. V. Sitaram; *Vice-Chmn.:* S. Vishnu Mohan; *Secy.:* C. S. Krishnaswami.

Madura Ramnad Chamber of Commerce, 90-92, East Avanimoola St., Madurai 625001. *Pres.:* S. Sundaramurti; *Hon. Secs.:* V. V. S. Yogan, C. R. K. Rammohan.

National Chamber of Commerce, 169, Broadway, Madras 600001.

Potato Chamber of Commerce, Cutchery St., Mettupalayam 641301. (Coimbatore Dist.).

Rajapalayam Chamber of Commerce, Hospital Rd., Rajapalayam 626117. (Ramnad Dist.).

Salem District Chamber of Commerce, Venkata Rao Rd., Salem 636001.

Sivakasi Chamber of Commerce, 5, South Car St., Sivakasi 626123.

South Travancore Chamber of Commerce, N. M. C. 10 377, Kumar Medical Centre Bldg., Tower Jn., Nagercoil 629001.

Southern India Chamber of Commerce & Industry, Indian Chamber Bldg., Esplanade, Madras 600001.

Tamil Chamber of Commerce, 310-311, Linghi Chetty St., Madras 600001

Tiruchirapalli District Chamber of Commerce, 77, Madura Rd., Tiruchirapalli 620008.

Tuticorin Chamber of Commerce & Industry, 24-B, Beach Rd. Tuticorin 628001

Tuticorin-Ceylon Current Exporters & Importers Chamber, 24, South Raja St., Tuticorin 628001

Vellore Chamber of Commerce, 147 1, Chunnambukara St., Vellore 632001

Virudhunagar Chamber of Commerce & Industry, P. Box 47, Virudhunagar 626001.

UTTAR PRADESH

Agra Merchants' Chamber Ltd., Bari Kothi, Belanganj, Agra 282004.

Banaras Chamber of Commerce Ltd., Biseshwarganj, Varanasi 221001.

Chamber of Commerce, Chandausi 202412.

Chamber of Commerce, Hapur 245101. (Meerut Dist.).

Doon Chamber of Commerce & Industry, 4, Nashvilla Rd., Dehra Dun 248001.

Eastern U. P. Chamber of Commerce & Industry, 5, Prayag St., Allahabad 211001.

Merchants Chamber of U. P., 14/38, Civil Lines, Kanpur 208001.

National Chamber of Industries and Commerce, P.O. G.G. Industries, Agra 282004.

North India Chamber of Commerce & Industry, 9, Gandhi Rd., Dehra Dun 248001.

Silk Merchants' Chamber of Commerce, Varanasi 221001.

Traders Chambers of Uttar Pradesh, Meston Rd., Kanpur 208001.

U. P. Chamber of Commerce, 15-197, Civil Lines, Kanpur 208001.

U. P. Chamber of Commerce & Industry, 194, Delhi Rd., Meerut 250001.

Upper India Chamber of Commerce, 14/69, Civil Lines, Kanpur 208001. *Pres.:* D. N. Dixit; *Secy.:* R. K. Mehra.

Western U. P. Chamber of Commerce, Bombay Bazar, Meerut Cantt. 250001

WEST BENGAL

Asansol Chamber of Commerce, 361, G.T. Rd., East, Asansol 713301.

Bengal Chamber of Commerce & Industry, Royal Exchange, Calcutta 700001. *Pres.:* T. D. Sinha; *Secy.:* M. Ghose.

Bengal National Chamber of Commerce & Industry, 23, R. N. Mookerjee Rd., Calcutta 700001. *Pres.:* Amal P. Sur; *Ag. Secy.:* Sunil Banik.

Bharat Chamber of Commerce, 8, Old Court House St., Calcutta 700001.

Burdwan Chamber of Commerce, Sir Rash Behary Ghosh Rd., Burdwan 713101.

Eastern Chamber of Commerce, 9/21, Bijoy Garh, Calcutta 700032.

Indian Chamber of Commerce, 4, India Exchange, India Exchange Place, Calcutta 700001. *Pres.:* G. P. Goenka; *Sr. Vice-Pres.:* R. S. Lodha; *Vice-Pres.:* K. K. Bajoria; *Secy.:* B. K. Agarwal.

Indo-American Chamber of Commerce, C/o Aeicorp (P) Ltd., 10, Lall Bazar St., Calcutta 700001.

Indo-German Chamber of Commerce, Ilaco House, 30 A/B, J. Nehru Rd., Calcutta 700016.

Kalimpong Chamber of Commerce, Kalimpong 734301. (Darjeeling Dist.).

Merchants' Chamber of Commerce, 14, Old Court House St., Calcutta 700001. *Pres.:* B. K. Jhajharia; *Vice-Press.:* S. S. Sanganeria, M. C. Shah; *Addl. Secy.:* H. R. Bose.

North Bengal Chamber of Commerce, Jalpaiguri 735101.

Oriental Chamber of Commerce, 6, Clive Row, Calcutta 700001.

Raniganj Chamber of Commerce, Raniganj 735101.

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Golconda Abrasives Ltd., 35, Shanthinagar, Hyderabad 500028.

Delhi

Alirox Abrasives Ltd., 4, Scindia House, Conn. Circus, New Delh 110001.

Micro Abrasives India Ltd., 65, Jor Bagh, New Delhi 110003.

Shevaraj Pvt. Ltd., C-204, Defence Colony, New Delhi 110003.

Gujarat

Emery India Pvt. Ltd., P.B. 135, Jamnagar 361001.

Everest Asbestos Mfg. Co., Opp. C. N. Vidyalaya, Dr. V. Sarabhai Rd., Ambavadi, Ahmedabad 380006.

Orient Abrasives Ltd., GIDC Ind. Area, Porbandar 360575.

Western Abrasive Inds., B-1, Super Mkt., Jamnagar 361001.

Haryana

Indian Abrasives, 5, Ind. Area, Faridabad 121001.

Jammu & Kashmir

MJV Coated Abrasives, 39 A/C, Gandhinagar, Jammu Tawi 180004.

Karnataka

Peenya Products Pvt. Ltd., A-189, Indl. Est., Peenya, Bangalore 560022.

Maharashtra

Abrasive Products of India, Ismail Bldg., Dr. D. Naoroji Rd., Bombay 400001.

Associated Abrasives Pvt. Ltd., Chandra Nivas, Behind Police Line, Andheri East, Bombay 400069.

Carborundum Universal Ltd., United India Bldg., Sir P. Mehta Rd., Bombay 400001.

Flexoplast Abrasives India Ltd., Plot No. 10, Off Dr. E. Moses Rd., Worli, Bombay 400018.

General Abrasive Co. Pvt. Ltd., I. B. Patel Rd., Goregaon (E), Bombay 400063.

Grindwell Norton Ltd., Army Navy Bldg., 148, M. Gandhi Rd., Bombay 400023.

Rajshree Abrasives Pvt. Ltd., Mora-Uran, P.O. Uran 400702, Kulaba Dist.

Pondicherry

United Abrasives Co., 143, Anna Salai, Pondicherry 605001.

Tamil Nadu

Carborundum Universal Ltd., 11, North Beach Rd., Madras 600001.

Cutfast Abrasive Tools Pvt. Ltd., Palli Karnai, Madras 600045.

Kanco Precision Tools Ltd., 724, Mount Rd., Madras 600006.

Uttar Pradesh

John Oakey & Mohan Ltd., Mohan Nagar, Ghaziabad 201007.

Micro Optical & Allied Abrasives, 23, Tilak Rd., Dehra Dun 248001.

West Bengal

East India Abrasives & Tools Co., 21, Kenderdine Lane, Calcutta 700012.

Howrah Mounted Pointed Suppliers Co., 5, Kuchil Sarkar Lane, Howrah 711101.

Krishnalal Thirani & Co., Ltd., 1, Brabourne Rd., Calcutta 700001.

ACIDS

Acid India, 30, Govindappa Naick St., Madras 600001.

Alvin Mechem Pvt. Ltd., 945, Tilak St., Kashmere Gate, Delhi 110006.

Bengal Acid & Chemical Mfg. Co., 27-A, Acharya P.C. Rd., Calcutta 700009

Bharat Chemical Works (India), 17, Mal Rd., Calcutta 700080.

Bombay Acid & Chemical Co., Vadhani Indl. Est., Shastri Marg, Bombay 400086.

Bombay Oil Inds. Pvt. Ltd., Kanmoor House, 281/287, N. Natha St., Bombay 400009.

Gujchem Distillers India Ltd., 5/2, GIDC Indl. Estate, Ankleshwar 393001. (Gujarat State).

Indo Borax Chemicals Pvt. Ltd., 505, Surat Sadan, Surat St., Bombay 400009.

Kamar Chemicals & Inds. Ltd., 202, Linghi Chetty St., Madras 600001.

Kap Chem Ltd., Whitefield Rd., Bangalore 560048.

Kerala Acids & Chemicals Ltd., VI/297, Parur Rd., Alwaye 683102. (Kerala State).

National Chemical Corpn., B. No. 9, Devkaran Mansion, Princess St., Bombay 400002.

Navsari Oil Products Pvt. Ltd., 4, Rajan House, Opp. Century Bazar, Bombay 400025.

Nukem Corpn., Sagar Mandir, Shivaji Park, 5th Rd., Bombay 400016.

Polypharm Pvt. Ltd., Calcot House, 8, Tamarind St., Bombay 400023.

Precise Impex Pvt. Ltd., 11/3575, Netaji Subhas Mrg., New Delhi 110002.

Punjab Sulphur Products Ltd., 526, Sector 16, Chandigarh 160017.

SG Chemicals & Pharmaceuticals Ltd., Express Bldg., 14 'E' Rd., Churchgate, Bombay 400020.

Shree Acids & Chemicals Ltd., Delhi Cold Storage Bldg., Azadpur, Delhi 110033.

Shroff Chemicals Pvt. Ltd., 19A, Palace Court, 1, Kyd St., Calcutta 700016.

Southern Hydrocarbons Ltd., Thondamanallur 622502, Pudukottai Dist. (T. Nadu).

Star Chemicals (Bombay) Pvt. Ltd., 21-A, Noble Chambers, P. Bazar St., Bombay 400001.

Tarapur Acid & Alkali Pvt. Ltd., 15, A. K. Nayak Mrg., Bombay 400001.

Tejal Chemicals, Opp. Vayda Pole, Chokhandi, Vadodara 390001.

Thana Acid & Chemical Co., 409, Sharda Chambers, Keshavji Naik Rd., Bombay 400009.

Union Acid & Chemical Co., 88, Bapu Khote St., Bombay 400003.

Union Petrochem, 14, Delux Society, Nizampura, Chhani Rd., Vadodara 390002.

Upar Chem Ltd., C-26, Sarvodayanagar, Kanpur 208005.

Vidula Chemicals & Mfg. Inds. Ltd., Neelamber Bldg., 28B, Shakespeare Sarani, Calcutta 700017

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(See under Office Equipment).

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(See under Office Equipment)

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Adhesives & Chemicals, 826, Marshall House, 33/1, N. Subhas Rd., Calcutta 700001.

A-1 Packaging, Plot No. 128, Sion West, Bombay 400022.

Aggarwal Commercial Corpn., 54, Mohamedali Rd., Bombay 400003.

Amartara Pvt. Ltd., Saki Vihar Rd., Bombay 400072.

BDM Industries, , Gama House, Gandhi Rd., Bhandup, Bombay 400078.

Bells Insulations Corpn., P-36, India Exchange Place, Calcutta 700001.

Bhavnani & Sons Pvt. Ltd., Waco House, Masrani Lane, Kurla, Bombay 400070.

Fuji Inds., 14/2, Old China Bazar St., Room No. 130, Calcutta 700001.

Million Tape Mfg. Co. India (Regd.), 2640, Hamilton Rd., K. Gate, Delhi 110006.

Natraj Paper Industries, 38-44, Nagdevi St., Bombay 400003.

P. Kesavan & Co., T. D. Rd., Cochin 682011.

Picon Pvt. Ltd., 50, Nesbit Rd., Mazgaon, Bombay 400010.

Pidilite Ind. Pvt. Ltd., Mafatlal House, Backbay Reclamation, Bombay 400020.

Sahyadri Sales & Service, 36, Poona Bombay Rd., Preet Chambers, Pune 411003.

Tapex Corpn., Shamaprasad Mukherji Path, Belgaum 590001.

Vidyut Udyog, 5, Fancy Lane, Calcutta 700001.

ADHESIVES

Delhi

Bharat Glue Mfg. Co., 6469, Katra Baryan, Fatehpuri, Delhi 110006.

Delhi Glue & Paint Ind., Katra Baryan, Fatehpuri, Delhi 110006.

Dinesh Jain & Bros., 6-A, Indl. Area, Tilak Nagar, New Delhi 110018.

Emulsion Products, Aiwan-E-Ghalib, 2nd Flr., Mata Sundri Lane, New Delhi 110002.

Jain & Jayna Sales Corpn., 14-B/7007, Dev Nagar, Karol Bagh, New Delhi 110005.

Liddles, Jindal House, 1/9-B, Asaf Ali Rd., New Delhi 110002.

Gujarat

Industrial Commercial Corpn., 572/3, Reid Rd., Ahmedabad 380002.

Neo Enterprise, 533, Padshaha's Pole, Relief Rd., Ahmedabad 380001.

Raymon Glues & Chemicals, "Kaustubh", 46-B, Gautam Nagar, Race Course Circle, Vadodara 390007.

Karnataka

Sahyadri Starch & Chemicals Pvt. Ltd., 60-61, III Phase, Peenya Indl. Area, Bangalore 560058.

Maharashtra

Artec Products, 55, Sidhpura Indl. Est., Bombay 400062.

Chemisol Ind., Devkaran Mansion, 41, Princess St., Bombay 400002.

Corn Products (I) Ltd., Shrinivas House, Waudby Rd., Bombay 400001.

Diamond Enterprises, 443, Dr. Bhadkamkar Mrg., Bombay 400004.

Fortuna Chemicals, Jay-Gandha, Ram Maruti Cross Rd. No. 4, Naupada, Thane 400602.

Hardcastle Waud Mfg. Co. Pvt. Ltd., 87, V. Nariman Rd., Bombay 400020.

Hazarat & Co., Warden House, Sir P. Mehta Rd., Bombay 400001.

Ilac Ltd., Plastics & Fibres Divn., Anik Chembur, Bombay 400074.

Industrial Chemicals & Adhesives, Saki-Vihar Rd., Powai, Bombay 400072.

Kondivita Pvt. Ltd., Mafatlal House, 2nd Flr., Backbay Reclamation, Bombay 400020.

Mahindra Electro-Chemical Products Ltd., Bombay-Pune Rd., Pimpri, Pune 411018.

Mercury Paints & Varnishes Ltd., Adhesives Dn., 28, Bombay Samachar Mrg., Bombay 400023.

Mosil Lubricants, Post Box 16791, 143 B/8, Sion West, Bombay 400022.

Nataraj Paper Industries, 38-34, Nagdevi St., Bombay 400003.

National Adhesives & Chemical Mfg., 26, Mahal Indl. Estate, M. Caves Rd., Andheri East, Bombay 400093.

Nevichem Synthetic Inds., 2-B, Parekh Nagar Ind. Estate, S. V. Rd., Kandivli West, Bombay 400087.

Parekh Marketing Pvt. Ltd., Mafatlal House, 2nd Flr., Backbay Reclamation, Bombay 400020.

Pidilite Ind. Pvt. Ltd., Mafatlal House, Backbay Reclm., Bombay 400020.

Rainbow Ink & Varnish Mfg. Co. Pvt. Ltd., 133-C, Vakola Pipe Lane, Bombay 400055.

Sealochem Inds., Post Box 207, Thane 400602.

Shandilya Chemicals Pvt. Ltd., Shandilya House, 41, Worli Seaface, Bombay 400025.

Sidhivinayak Chemicals Pvt. Ltd., 4/4, Dev Smriti, H. F. Society Rd., Jogeshwari East, Bombay 400060

Synthosive & Allied Products, A/27, Mandapeshwar Krupa, Borivli West, Bombay 400103.

Themis Agencies, 43, M. Karve Rd., Bombay 400002.

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Tamil Nadu

Chandras' Chemical Enterprises Pvt. Ltd., 112-L, Vepery High Rd., Periamet, Madras 600002.

Mahindra Engg. & Chemical Products Ltd., 175/1, Dhun Bldg., Mount Rd., Madras 600002.

Stikwell Adhesives, 8, Kasi Indl. Estate, Jaffarkanpet, Madras 600095.

West Bengal

Adhesives & Allied Products, 12, N. Subhas Rd., Calcutta 700001.

Adhesives & Chemical Inds., 590, N. Alipore, Calcutta 700053.

Bells Plastics & Chemicals, P-36, India Exchange Place, Calcutta 700001.

Chandra's Chemical Enterprises Pvt. Ltd., P-35, C.I.T. Rd., Scheme 52, Calcutta 700014.

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Indian Eyelets Ind., 33, N. Subhas Rd., Calcutta 700001.

Metroark Pvt. Ltd., 12, Lenin Sarani, Calcutta 700013.

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Joemann Plastics & Inds., 212/215, Tripathi Estate, S. V. Rd., Jogeshwari West, Bombay 400102.

Narendra Brothers, 2E/22; Jhandewalan Extn., New Delhi 110055.

Pahlaj Bajaj & Co. (Novelties) Pvt. Ltd., 63, Jolly Maker Chambers No. 1, Nariman Point, Bombay 400021.

Promotional Aids & Presentation Articles, Causeway House Colaba Causeway, Bombay 400039.

Sharat Inds., Swastik Ind. Estate, C.S.T. Rd., Kalina, Bombay 400029.

Skill Products, 84/94, Central Studio House, Near Air-conditioned Mkt., Tardeo, Bombay 400034.

Speed-O-Speak (India), 7, New Queen's Rd., Bombay 400004.

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T. Alimahomed & Co., 144-46, Sarang St., Bombay 400003.

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Vishal Advertisers, 1569, 1st Flr., Church Rd., K. Gate, Delhi 110006.

Zhukzu Advtg. Gifts, Banu Mansion, 16-A, Nadirshah Sukhia St., Bombay 400001.

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Black Diamond Beverages Ltd., P-41, Taratala Rd., Calcutta 700088.

Duke & Sons Pvt. Ltd., Sunderbaug Est., Wadala-Borla Rd., Bombay 400071.

Parle Exports Pvt. Ltd., Western Express Highway, Chakala, Andheri East, Bombay 400093.

Pure Drinks Pvt. Ltd., Worli Naka, Bombay 400018.

Southern Bottlers Pvt. Ltd., Guindy, Madras 600032.

AERATING MACHINES

Amit Engineers, 2, Patel Nagar, 80 Ft. Rd., Rajkot 360002. (Gujarat).

Esoofali Mohamedalli & Co., 102/4, Sarang St., Bombay 400003.

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Hyderabad Iron & Steel Works, Ind. Area, Hyderabad 500018.

Jyothi Ind., C-31, Ind. Estate, Sanatnagar, Hyderabad 500018.

Krishi Engines Ltd., A-7 Unit, Sanatnagar, Hyderabad 500018.

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Espi (New Delhi) Trdg. Co., Vandhana, 11, Tolstoy Mrg., New Delhi 110001.

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Gupta Iron and Brass Works Pvt. Ltd., 29, Najafgarh Rd., New Delhi 110015.

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Gujarat

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Sayaji Iron & Engg. Co. Ltd., Chhani Rd., Vadodara 390001.

Haryana

Laldee Pvt. Ltd., 11, Ind. Area, Faridabad 121001.

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Industrial Machinery Manufrs. Pvt. Ltd., Near New Cotton Mills. Off Amraiwadi Rd., Ahmedabad 380008.

Haryana

Snowtemp Eng. Co. Ltd., 14th Mile Stone. Mathura Rd., Faridabad 121001.

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Dust Control & Ventilation Ltd., A-175-176. Peenya Indl. Suburb. Bangalore 560022.
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Bharat Electric & Engg. Corpn., 21, Dalal St., Bombay 400023.

Bharat Enterprises, 57, Lohar Chawl, Bombay 400002.

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Hindustan General Trading Co. Pvt. Ltd., 23/24, Chandralok, Central Ave., Nagpur 440018.

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A. P. V. Engg. Co. Pvt. Ltd., 2, Jessore Rd., Calcutta 700028.

Air Control & Chemical Engg. Co. Ltd., Patel Society, Panchvati, Ahmedabad 380006.

American Refrigerator Co. Ltd., 20A, Shivaji Marg, Calcutta 700015.

Auto Dynamics, 'D', Shivsagar Estate, Worli, Bombay 400018.

Auto Fair Pvt. Ltd., 3 & 6, Canal St., Calcutta 700001.

Automotive Refrigeration Co., 100, Nagindas Master Rd., Bombay 400023.

Avon Auto Air-Conditioners, 19/1, Camac St., Calcutta 700017.

Indian Refrigeration Ind., 51, Najafgarh Rd., New Delhi 110015.

INDUS, 371, Cadell Rd., Prabhadevi, Bombay 400028.

Industrial Refrigeration, Maker Chamber V, 9th Flr., N. Point, Bombay 400021.

Ion Exchange (India) Ltd., Tiecicon House, Haines Rd., Bombay 400011.

Jai Auto Works, 9, Madhu Indl. Estate, Pandurang Budhkar Mrg., Bombay 400013.

Keeta & Co., 135, Dr. A. Besant Rd., Bombay 400018.

Mobil Air, 26, Unique Indl. Estate, Bombay Dyeing Mill Compd., Prabhadevi, Bombay 400025.

Premier Auto Electric Ltd., 69, Tardeo Rd., Bombay 400034.

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Hyderabad Allwyn Ltd., Sanatnagar, Hyderabad 500018.

Shriram Refrigeration Ind. Ltd., P.O. Balanagar Township, Hyderabad 500037.

Delhi

Air Frige Ind., 10/65, Kirti Nagar Ind. Area, New Delhi 110015.

Bombay Ammonia Pvt. Ltd., 1/24, Asaf Ali Rd., New Delhi 110002

Delhi Refrigeration Corpn., 'Sahdeva House', 3819/20, David St., Darya Ganj, New Delhi 110002.

Electronics Ltd., 12-A, Connaught Place, New Delhi 110001.

Everair Inds. (India), B-70, Sarvodaya Enclave, New Delhi 110017.

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Freeze King Ind. Pvt. Ltd., 7/17, Kirti Nagar, New Delhi 110015.

Frick (India) Ltd., Jeevan Vihar Bldg., Parliament St., New Delhi 110001.

General Equipment Merchants Ltd., 2/90, Connaught Place, New Delhi 110001.

Himalaya Mfg. & Sales Co., Park Mansion, N. Subhas Marg., New Delhi 110002.

Indian Refrigeration Ind., 7/15, Kirti Nagar, New Delhi 110015.

Industrial Refrigeration Corpn., B-35, South Ext., Part I, New Delhi 110049.

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Kelvinator of India Ltd., Atma Ram House, Tolstoy Marg, New Delhi 110001.

Koolaire Pvt. Ltd., 44, Janpath, New Delhi 110002.

Lloyd Electric & Engg. Co., Punj House, M-13, Connaught Circus, New Delhi 110001.

National Refrigeration Works, 3, Subash Marg, Darya Ganj, New Delhi 110002.

Sankyo-Vikas (India) Ltd., 12A, Najafgarh Rd., New Delhi 110015.

Uniaire Pvt. Ltd., 1305, Pragati Tower, 26, Rajindra Place, New Delhi 110008.

Utility Engrs. (India) Pvt. Ltd., 16, Shopping Centre, Panchsheel Park, New Delhi 110017.

Virmani Refrigeration & Cold Storage Pvt. Ltd., E/2, Jhandewalan Ext., New Delhi 110055.

Gujarat

American Refrigerator Co. Ltd., Jan Saheb St., Lal Darwaja, Ahmedabad 380001.

Wintair Mfg. Pvt. Ltd., Opp. Sarangpur Gate, Iron Mkt., Ahmedabad 380002.

Haryana

Kelvinator of India Ltd., 28, New Ind. Town, Faridabad 121001.

Snowtemp Engg. Corpn., Delhi Mathura Rd., Faridabad 121003.

Usha Rectifier Corpn. (I) Ltd., 12/1, Mathura Rd., Faridabad 121003.

York India Ltd., 14th Milestone, Mathura Rd., Faridabad 121003.

Karnataka

Olympus Refrigeration & Engg. Corpn., Ind. Estate, Yeyyadi, Mangalore 575001.

Steel India Pvt. Ltd., C-12, Ind. Estate, Bangalore 560044.

Maharashtra

Advanson Engg. Co., A 78, Wagle Ind. Estate, Plot A. 78, Thane 400604.

Arvind Mechanical & Electrical Engrs. Pvt. Ltd., New Sun Mill Comp., Lower Parel, Bombay 400013.

Batliboi & Co. Ltd., Bharat House, Apollo St., Bombay 400023.

Blue Star Ltd., Kasturi Bldg., J. Tata Rd., Bombay 400020.

Bombay Refrigerator Ind. Pvt. Ltd., 119, Bhavani Shankar Rd., Bombay 400028.

C. Doctor & Co. Pvt. Ltd., 11, Homi Mody St., Bombay 400023.

Dadajee Dhackji & Co. Pvt. Ltd., Sandhurst Bridge, Bombay 400007.

Danfoss India Ltd., Mani Mahal, Mathew Rd., Bombay 400004.

Fridge Care, 8/4, Banaji Apartments, Nal Stop, Karve Road, Pune 411004.

General Equipment Merchants Ltd., Khorshed Bldg., Sir P. M. Rd., Bombay 400001.

Godrej & Boyee Mfg. Co. Pvt. Ltd., Lalbaug, Bombay 400012.

I. B. Engg. Co., Shree Vijay Bhavan, S. K. Barodawala Mrg., Bombay 400026.

Industrial Refrigeration, 4, Apeejay House, 130, Bombay Samachar Mrg., Bombay 400001.

Jafkay Engg. Corpn., A 12, Marol MIDC Ind. Estate, Bombay 400059.

Khandelwal Herrmann Electronics Pvt. Ltd., Khandelwal Estate, Bhandup Village Rd., Bombay 400078.

Kirloskar Pneumatic Co. Ltd., Hadapsar Ind. Estate, Pune 411013.

Larsen & Toubro Ltd., L. & T. House, N. Morarji Marg, Ballard Estate, Bombay 400038.

Marshal Airconditioning & Refrigeration Engrs., 206, Auto Commerce House, Kennedy Bridge, Bombay 400007.

National India Development Co. Ltd., 45A, Forjett St., Bombay 400036.

Refrigeration Industries, Plot No. 76, Rd. No. 14, MIDC, Andheri East, Bombay 400093.

Sahyadri Enterprises, Haji Moosa Ind. Estate, 20, Dr. E. Moses Rd., Bombay 400011.

Spencer & Co. Ltd., Spencer House, Forjett Rd., Bombay 400026.

Tropical Refrigeration Industries, Kangra Bhavan No. 2, Dr. A. Besant Rd., Bombay 400025.

V. Krishna & Co., Moti Baug, Opp. R. K. Studio, Chembur, Bombay 400071.

Voltas Ltd., 19, Graham Rd., Ballard Estate, Bombay 400038.

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Orissa

Kalinga Svenska Ltd., P. O. Chowdwar 754025, Cuttack Dist.

Punjab

Beegee Corpn. Pvt. Ltd., 25, Factory Area, Patiala 147002.

Tamil Nadu

Air Conditioning Corpn. Ltd., 8, Greames Rd., Madras 600006.

Hydrogen Pvt. Ltd., 1/155, Mount Rd., Madras 600002.

Uttar Pradesh

Koolaire Pvt. Ltd., Pasonda, Ghaziabad 201001.

West Bengal

A. P. V. Engg. Co. Ltd., 2, Jessore Rd., Calcutta 700028.

Air Conditioning Corpn. Ltd., 17, Taratolla Rd., Calcutta 700053.

American Refrigerator Co. Ltd., 13/C, Russel St., Calcutta 700016.

Dua Refrigeration Co., 1, L. Cross Rd., Calcutta 700020.

Electric Construction & Equipment Co. Ltd., 9, K. Singh Rd., Calcutta 700002.

General Electric Co. of India Pvt. Ltd., Magnet House, Ganesh Chandra Ave., Calcutta 700013.

Guest Keen Williams Ltd., Jeevan Deep, 3A, Shakespeare Sarani, Calcutta 700071.

J Stone & Co. (India) Pvt. Ltd., 16, New Taratolla Rd., Calcutta 700027.

Jay Engg. Works Ltd., 183 A. P. Anwarsha Rd., Calcutta 700031.

National Refrigerators Pvt. Ltd., 87, Lower Circular Rd., Calcutta 700014.

Refrigeration Accessories Ltd., 13/1/B, Russel St., Calcutta 700016.

Refrigerators (India) Pvt. Ltd., P-12, C.I.T. Rd., Calcutta 700014.

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Air Conditioning Corpn. Ltd., 17, Taratolla Rd., Calcutta 700053.

American Refrigerator Co. Ltd., 13-C, Russel St., Calcutta 700016.

Atlantic Engg. Service Pvt. Ltd., 505, Eros Apartments, 56, Nehru Place, New Delhi 110019.

Batliboi & Co. Pvt. Ltd., Bharat House, Apollo St., Bombay 400023.

Blue Star Ltd., Kasturi Bldg., J. Tata Rd., Bombay 400020.

Bombay Ammonia Pvt. Ltd., 1/24, Asaf Ali Rd., New Delhi 110002.

Danfoss India Ltd., Mani Mahal, Mathew Rd., Bombay 400004.

Freeze King Ind. Pvt. Ltd., 7/17, Kirtinagar, New Delhi 110015.

Frick (India) Ltd., Jeevan Vihar Bldg., Parliament St., New Delhi 110001.

Frigsales (India) Pvt. Ltd., 204, Commerce House, Medows St., Bombay 400023.

Industrial Refrigeration Ind. Pvt. Ltd., 10/65, Kirti Nagar Indl. Area, New Delhi 110015.

J. Stone & Co. (India) Pvt. Ltd., 16, New Taratola Rd., Calcutta 700027.

Jafkay Engg. Corpn., A-12, Marol MIDC Ind. Estate, Bombay 400059.

Lloyd Sales Corpn., 386, Cadell Rd., Bombay 400028.

National Refrigerators Pvt. Ltd., 87, Lower Circular Rd., Calcutta 700014.

Pandya & Co., Nanabhoy Mansion, Sir P. Mehta Rd., Bombay 400001.

Refrige Pvt. Ltd., 16, Shakespeare Sarani, Calcutta 700016.

Refrigeration Inds., Plot No. 76, Rd. No. 14, M.I.D.C., Andheri East, Bombay 400093.

Refrigerators (India) Pvt. Ltd., P-12, CIT Rd., Calcutta 700014.

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Tropical Refrigeration Ind., Kangra Bhavan No. 2, Dr. A. B. Rd., Bombay 400025.

Utility Engrs. (India) Pvt. Ltd., 16, Shopping Centre, Panchsheel Park, New Delhi 110011.

Voltas Ltd., 19, Graham Rd., Ballard Estate, Bombay 400038.

ALKALIES

Alkali & Chemical Corpn. of India Ltd., 18, Strand Rd., Calcutta 700001.

Andhra Sugars Ltd., Venkatarayapuram, P.O. No. 2, Tanuku 534211.

Atul Products Ltd., P.O. Atul 396020, Valsad Dist.

Century Chemicals, Industry House, Churchgate Recl., Bombay 400020.

Chemifab Alkalies Ltd., Tiam House, G.S.T. Rd., Madras 600048.

Dhrangadhra Chemical Works Ltd., Nirmal, Nariman Point, Bombay 400021.

Gujarat Alkalies & Chemicals Ltd., P.O. Petrochemicals 391346, Vadodara Dist.

Jayshree Chemicals Ltd., 14, N. Subhas Rd., Calcutta 700001.

Kanoria Chemicals & Ind. Ltd., 16A, Brabourne Rd., Calcutta 700001.

Mettur Chemical & Ind. Corpn. Ltd., Mettur Dam R.S. 636402, Salem Dist.

Modi Alkalies & Chemicals Ltd., 18, Comn. Centre, New Friends Colony, New Delhi 110065.

Punjab Alkalies Ltd., SCO 54-56, Sector 17-A, Chandigarh 160017.

Saurashtra Chemicals, Industry House, Churchgate Recl., Bombay 400020.

Shriram Chemical Ind., 1, Jhandewalan Estate, Naaz Bldg., New Delhi 110055.

Standard Mills Co. Ltd., Chemical Division, Mafatlal House, Backbay Recl., Bombay 400020.

Tata Chemicals Ltd., Bombay House, Homi Mody St., Bombay 400023.

Travancore Cochin Chemicals Ltd., Udyogamandal 683501, (Kerala State).

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Almin Inds., 4, Whites Rd., Madras 600014.

Alu-Finns India, 5, Rustam Bldg., 29 V. Nariman Rd., Bombay 400023.

Alumilite Pvt. Ltd., No. 1, Spur Tank Rd., Madras 600031.

Aluminium Enterprises, 65, M. Gandhi Rd., Bombay 400023.

Aluminium Windows & Safety Works, 5, Star Trade Centre, S. V. P. Rd., Borivli West, Bombay 400092.

Aluplex Inds., 6/1, Mahalaxmi Indl. Estate, Gandhinagar, D. Channel Rd., Lower Parel, Bombay 400013.

Amerbhoy Dossajee, 148/150, Lohar Chawl, Bombay 400002.

Architectures Incorporated, 26, Pulla Ave., Shenoynagar, Madras 600030.

Asco Engg., 36, Prospect Cham[illegible]s Annexe, Dr. D. N. Rd., Bombay 400001.

Balraj Engg. Works, 2/2, Hosur Rd., Wilson Gardens, Bangalore 560027.

Chouhan Aluminiums, Prashant, 62, Ghogha St., Bombay 400001.

Crystal Corpn., 226, Kalbadevi Rd., Bombay 400002.

Decorative Ceiling Centre, 6-1-1063/B/1, Raj Bhavan Rd., Hyderabad 500004.

Elme Engrs., 313, Unique Indl. Estate, Prabhadevi, Bombay 400025.

Falcon Enterprises, Gupta House, 54, 2nd Marine St., Bombay 400002.

Feroo Steel Inds., 36AB, Govt. Ind. Estate, Kandivli, Bombay 400067.

Featherlite Corpn., 136, Mysore Rd., Bangalore 560026.

5 Star Aluminium Inds., 201, New Satguru Indl. Estate, W. Express Highway, Goregaon East, Bombay 400063.

General Aluminium Corpn., 10, Tumkur Rd., Bangalore 560022.

Jha Engg. Works, 94, Mody St., Bombay 400001.

Jupiter Windows, St. No. 13, Plot No. 64, MIDC Indl. Area, Andheri East, Bombay 400093.

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Sakhti Inds., 99-A. G. S. T. Rd.. Pallavaram. Madras 600043.

Seth Enterprises. B-34. Malad Co-op. Housing Socy. Ltd., Poddar Park Rd., Malad (E). Bombay 400064.

Silver Line Industries. Juhu Rd., Bombay 400054.

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Starlite Windows. 215. A. Rehman St.. Bombay 400003

Vibhuti Udyog. 101. Thakurdwar Rd.. Jetekarwadi. Bombay 400002.

Vinalwin Industries, 838, Ganesh Baug Estate, Tambi Naka, Thane 400601.

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Jindal Aluminium Ltd., 16th K. M., Tumkur Rd., Bangalore 562139.

Karnataka Aluminium Ltd., No. 1, K. R. S. Rd., Metagalli, Indl. Estate, Mysore 570016.

Kerala

Aluminium Ind. Ltd., I. Ceramic Factory Rd., Kundara 636402. Quilon Dist.

Maharashtra

Ajit India Pvt. Ltd., 408. Ramon House. Backbay Reclm., Bombay 400020

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B. S. Castings & Engg. Pvt. Ltd., 8. Ambalal Doshi Mrg., Bombay 400023.

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Devidayal Aluminium Inds. Pvt. Ltd., Gupta Mills Compd., Reay Rd., Bombay 400010.

Gem Ind., 130/132. Nishanpada Rd., Bombay 400009.

Hindtex Engrs. Pvt. Ltd., Janmabhoomi Bhavan. Ghogha St., Bombay 400001.

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Jindal Aluminium Ltd., Prasad Chambers. Swadeshi Mill Compound. Bombay 400004.

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Lallubhai Amichand Ltd., 48/50, Kansara Chawl, Bombay 400002.

Mahavir Metal Works Pvt. Ltd., 17, A. Rehman St., Bombay 400003

Oriental Containers Ltd., 1076, Dr. E. Moses Rd., Worli, Bombay 400018.

Patel Aluminium Pvt. Ltd., Patel Est., W. Express Highway, Goregaon East, Bombay 400063.

Pitambardas Lallubhai & Co., P. Box 2551, Kalbadevi Rd., Bombay 400002.

Priya Aluminium Works, 2, Khanna House, 17th Rd., Khar West, Bombay 400052

Rajesh Aluminium Corpn., 71, Kansara Chawl, Kalbadevi Rd., Bombay 400002.

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Sanghvi & Sons, A. Shanti Niketan Bldg., Shop No. 6, C.S.T. Rd., Kalina, Santacruz East, Bombay 400098.

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Ajit India Pvt. Ltd., Hamid Bldg., Mount Rd., Madras 600006.

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Jeewanlal (1929) Ltd., 127, Mint St., Madras 600001.

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Aluminium & Alloys Ind., 435, Jessore Rd., Dum Dum, Calcutta 700028.

Aluminium Cables & Conductors Pvt. Ltd., 2A, Shakespeare Sarani, Calcutta 700016.

Aluminium Mfg. Co. Ltd., Jessore Rd., Dum Dum, Calcutta 700028.

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Eastern Aluminium Fabricators Pvt. Ltd., 17/15, The Mall, Calcutta 700052.

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Howrah Metal Casting Works, 22, Belur, Rd., Liluah, Howrah 711204.

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Kutir Udyog Kendra, 58/3, Canning St., Calcutta 700001.

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L. Madanlal (Aluminium) Pvt. Ltd., 46, Strand Rd., Calcutta 700007.

National Metal Works, 247, G. Trunk Rd., Belur Bazar, Howrah 711106.

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Bramhappa Tavanappanavar Pvt. Ltd., Krishnaraja Rd., P.B. 7, Davangere 577001.

Mysore Feeds Ltd., 283-284, Old Tharagupet, P.B. 7884, Bangalore 560002.

Ravi Vegetable Oil Industries, P.B. 205, Pune-Bangalore Rd., Davangere 577002.

Sunfarm Feeds (A. Div. of Sundatta Foods & Fibres Ltd.), Karwar Rd., P.B. 27, Hubli 580020.

Yarana Feeds & Farms, B-55/56, Indl. Est., Hubli 580020.

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Mahe Polymers Pvt. Ltd., 'Lamina', Banerji Rd., Cochin 682018.

Madhya Pradesh

Bhandari Crosfields Pvt. Ltd., 27, M. Gandhi Rd., Indore 452001.

Jai Kisan Agro Inds., 31-33, Udyog Nagar, Indore 452001.

Raj Inds., Bina 470113.

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Hindustan Feed Products, Opp. Sewree Rly. Station (East), Bombay 400015.

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Jamnadas Madhavji & Co., Tanna House, 11-A, Wodehouse Rd., Bombay 400039.

Tata Oil Mills Co. Ltd., Sewri Mills, Hay Bunder Rd., Bombay 400033.

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Shaw Wallace & Co. Ltd., 8/9, Thamby Chetty St., P.B. 14, Madras 600001.

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Jay Em Provender Mills, 54/1, Nayaganj, Kanpur 208001.

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Ballygunge Fodder Mills, 9, Gurusadaya Rd., Calcutta 700019.

Mahakali Food & Feed Supplies, 207, M.Debendra Rd., Calcutta 700007.

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Everest Asbestos Mfg. Co., 71/A, Netaji Subhas Rd., Calcutta 700001.

Everest Building Products Ltd., Block 'D', Shivsagar Est., Dr. A. Besant Rd., Worli, Bombay 400018.

Hindustan Ferodo Ltd., L. B. Shastri Marg, Ghatkopar, Bombay 400086.

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Madras Asbestos Pipe Co., 2/142, Mount Rd., Madras 600006.

Mysore Asbestos Ltd., 39, M. G. Rd., Bangalore 560001.

Patcon Pvt. Ltd., 7-A, Elgin Rd., Calcutta 700020.

Pelican Valves and Engg. Works, 27/2, 'Q' Rd., Belgachia 700037, Howrah Dist.

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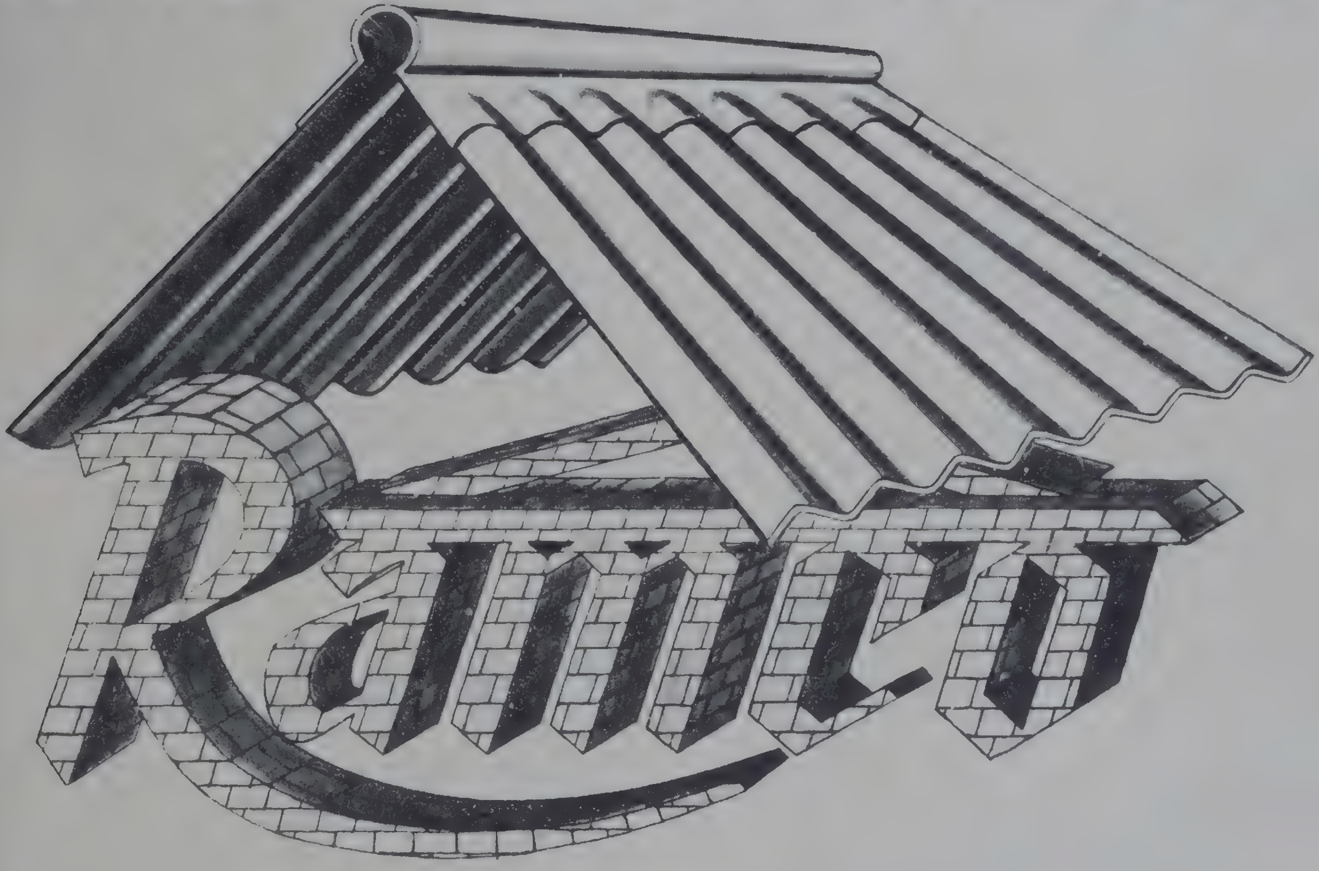

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Auto Pins (India), Kashmere Gate, Delhi 110006.

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Delhi Electricals, 120, Railway Rd., Shahdara, Delhi 110032.

Elofic Industries (India), Patel Motor Mkt., Kashmere Gate, Delhi 110006.

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National Rubber Products, 4/14, Kirti Nagar Ind. Area, New Delhi 110015.

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Supercircle Pvt. Ltd., B-45, Mayapuri Ind. Area, New Delhi 110027.

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United Engg. Works, Ramkumar Mills Comp., Saraspur, Ahmedabad 380018.

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Clutch Auto Pvt. Ltd., 11-112, Sector 6, Faridabad 121006.

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Jai Bharat Auto Ind.,Chaura Bazar, Karnal 132001.

Oswal Electricals, 49, Indl. Area, Faridabad 121001.

Oswal Engg. & Gen. Works, 3E/29B, N.I.T., Faridabad 121001.

Prestolite of India Ltd., 16/4, Mathura Rd., Faridabad 121001.

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Talbros Automotive Components Ltd., 74, Sector 6, Faridabad 121006.

Usha Die Casting Pvt. Ltd., 5, Indl. Area, Gurgaon 122001.

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Canara Worshops Ltd., Kodialbail, Mangalore 575003.

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Saund Zweirad Union Pvt. Ltd., Jhansi Rd., Gwalior 474001.

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Adroit Industries (India), 429, V. Patel Rd., Bombay 400004.

Allied Auto Accessories Pvt. Ltd., M. Vasanji Rd., Bombay 400069.

Anandji Haridas & Co. Pvt. Ltd., Fosberry Rd., Bombay 400015.

Apex Radiators Pvt. Ltd., 18/2, Coal Bunder, Darukhana, Bombay 400010.

Ashweeni Industries, Unit No. 306, Sun Indl. Estate, Sunmil Compd., Lower Parel, Bombay 400013.

Atlas Automotive Components (Divn. of Indokem Pvt. Ltd.), 221, Dr. D. N. Rd., Bombay 400001.

Auto Mughals Pvt. Ltd., Plot E-17 M.I.D.C. Ind. Area, Chikalthana, Aurangabad 431210.

Automat Engg. Pvt. Ltd., Kurla Indl. Estate, Shastri Marg, Bombay 400077.

Automobile Ancillaries of India Pvt. Ltd., Plot No. 31, Kandivli Ind. Estate, Kandivli, Bombay 400067.

Automobile Engg. Co., A-47, Wagle Indl. Estate, Thane 400604.

Automobile Products of India Ltd., Bhandup, Bombay 400078.

Automotive & Allied Ind. Pvt. Ltd., Kalyanpur House, 3rd Rd., Bombay 400052.

Automotive Corpn. (India), Prasad Chambers, M. Karve Rd., Bombay 400004.

Automotive Mfrs. Pvt. Ltd., 108, Bazar Ward, Kurla, Bombay 400070.

Avdel (India) Pvt. Ltd., Ramon House, 169, Backbay Reclamation, Bombay 400020.

Bestamco, 94, Kadri Park, Irla, Bombay 400056.

Bharat Radiators Pvt. Ltd., Vidyanagari Mrg., Kalina, Bombay 400098.

Calama Ind. Ltd., Kodak House, Dr. D. Naoroji Rd., Bombay 400001.

Casablancas Gannon Engg. Ltd., Bombay Agra Rd., Bhandup, Bombay 400078.

Chandok Automotive Mfrs. Ltd., 431, Lamington Rd., Bombay 400004.

Chronomatic Ind. Pvt. Ltd., Prakash Mills Comp., Off Globe Mills Passage, Bombay 400013.

Dee-Kay Ind., Lake Rd., Bhandup, Bombay 400078.

Echjay Ind. Pvt. Ltd., Kanjur Villa, Bhandup, Bombay 400078.

Emmes Metals Pvt. Ltd., 147, Govt. Indl. Estate, Kandivli (W), Bombay 400067.

Ensign Engrs. Pvt. Ltd., Dumping Rd., Mulund West, Bombay 400080.

Evergreen Auto Ind., 322, V. Patel Rd., Bombay 400004.

Ex-Cello India Ltd., 78-B, Dr. A. Besant Rd., Bombay 400018.

Fairfield Manufg. Co., Aman Chambers, 113, M. Parmanand Marg, Bombay 400004.

Fer Electricals, A-423-425, Wagle Indl. Estate, 28th Rd., Thane 406004.

Fuel Injections Ltd., Chitalsar-Manpada, Swami Vivekananda Rd., Thane 400601.

G. K. Auto Inds. Pvt. Ltd., A-32, M.I.D.C., Marol Indl. Estate, Andheri (E), Bombay 400093.

Gabriel India Ltd., S304, L. B. Shastri Marg, Mulund, Bombay 400080.

Globe Auto Electricals Ltd., L. B. Shastri Marg, Mulund, Bombay 400080.

Globe Steerings Ltd., Shastri Mrg., Bombay 400080.

H. F. Higgins (Eastern) Pvt. Ltd., Aggarwal Indl. Est., Vivekanand Rd., Bombay 400060.

Hararwala Engg. Works Pvt. Ltd., 50, Nesbit Rd., Mazgaon, Bombay 400010.

Hindustan Ferodo Ltd., L.B.S. Mrg., Ghatkopar, Bombay 400086.

Indian Standard Metal Co. Ltd., I.S.M. Estate, Anant Ganpat Pawar Lane, Bombay 400027.

Indo-German Inds., 317, Bharat Indl. Estate, Tokersey Jivraj Rd., Bombay 400015.

Indo-Spring Inds., Akash Deep, French Bridge, Bombay 400007.

Jasmin Industries, 159, C.S. Track Rd., Kalina, Bombay 400029.

Jaya Hind Industries Pvt. Ltd., Akurdi, Pune 411035.

Jayant Engg. Works, 1344, Shivajinagar, Pune 411005.

K. S. Diesels Pvt. Ltd., Bombay Mutual Chambers, A. Doshi Mrg., Bombay 400023.

Kalyani Brakes Ltd., M.R.S.S. Bldg., 5, B. J. Rd., Pune 411001.

Kothari Auto Parts Manufg. Pvt. Ltd., 431, Bhadkamkar Marg, Bombay 400004.

La Prenca Ind. Pvt. Ltd., Sonawala Cross Rd., Sonawala Estate, Goregaon East, Bombay 400063.

Lu Bra Diz Tube Engineers, 2-B, Bibijan St., Bombay 400003.

Luthra Engg. & Radiator Co., A-26, Shalimar Indl. Estate, Matunga, Bombay 400019.

Mahindra & Mahindra Ltd., Automobile Dn., Worli Rd., Bombay 400018.

Mandlecha Metals (India); 5/B, Ramesh Apartment, Narshing Lane, P.B. No. 7630, Malad (West), Bombay 400064.

Matchless Automobile & Engg. Inds., 43, Benham Hall Lane, Bombay 400004.

Menon Pist.... , Ind. Estate, Shiroli, Kolhapur 416005.

Metal Stamping Co., Plot A35, Road 10, Wagle Ind. Estate, Thane 400604.

Nathani Automotive Products Pvt. Ltd., Adjoining Vidya Vihar R!y. St. West, Bombay 400086.

National Auto Ind., 35-C, Govt. Ind. Estate, Kandivli, Bombay 400067.

National Automobile Co. Pvt. Ltd., Nagindas Mansions, Opera House, Bombay 400004.

New Haven Engg. Co. Pvt. Ltd., Nanjee Bldg., Horniman Circle. Bombay 400001.

P.M.P. Auto Pvt. Ltd., Aarey Rd., Goregaon (E), Bombay 400063.

Pals Industries, A-108, Wagle Ind. Estate, 18th Rd., Thane 400604.

Paranjpe Engg. & Foundry Co. Pvt. Ltd., E 14-15, Bhosari Ind. Area, Bhosari, Pune 411026.

Parson Inds. Pvt. Ltd., 102, Bhosari General Block, MIDC., Pune 411026.

Patheja Forgings & Auto Parts Mfrs. Pvt. Ltd., E-20, Bhosari Ind. Block, Pimpri, Pune 411026.

Pethe Engg. Pvt. Ltd., 69, S. K. Bole Rd., Bombay 400028.

Pramashaw Group of Companies, Raval Bldg., 420, Lamington Rd. Bombay 400004.

Precision Components Pvt. Ltd., Andheri-Kurla Rd., Marol Naka, Bombay 400059.

Prefit Ind. Pvt. Ltd., 198, Carnac Rd., Bombay 400002.

Premier Automobiles Ltd., Agra Rd., Kurla, Bombay 400070.

Press Metal Corpn. Pvt. Ltd., Marol Naka, Andheri-Kurla Rd., Bombay 400059.

Ramon & Demm Ltd., S. V. Rd., Thane 400607.

Rane Pvt. Ltd., New Queen's Rd., Bombay 400004.

Ropals India Ltd., 145, Bombay-Poona Rd., Pimpri, Pune 411018.

Sahney Kirkwood Pvt. Ltd., 27, Kirol, Vidyavihar, Bombay 400086.

Schrader-Scovill Duncan Ltd., Nirmal Bldg., Nariman Point, Bombay 400021.

Simmonds Marshall Ltd., Savoy Chambers, 5, Wallace St., Bombay 400001.

Spaco Carburettors India Ltd., Prasad Chambers, Bombay 400004.

Swastik Auto Products, Nagar Poona Rd., Khedgaon, Ahmednagar 414001.

Tata Engg. & Loco. Co. Ltd., 24, Homi Mody St., Bombay 400023.

Teksons Ltd., Kolshet Rd., Majiwada, Thane 400601.

Vibronics Pvt. Ltd., Kurla Indl. Est., Bombay 400086.

Vijay Auto Inds. Pvt. Ltd., 27, A. Gokhale St., Bombay 400004.

Yojana Udyog Pvt. Ltd., 51-C/D, Govt. Indl. Estate, Kandivli (W), Bombay 400067.

Orissa

Auto Springs Pvt. Ltd., 8, Forest Park, Bhubaneswar 751009.

Pondicherry

East Coast Conductors Pvt. Ltd., B-2, Indl. Estate, Thattanchavady, Pondicherry 605009.

Punjab

Akal Spring Pvt. Ltd., Gill Rd., Ludhiana 141003.

Auto Pistons Mfg. Co. Ltd., Batala Rd., Amritsar 143001.

Auto Valve Ind., Sirhind Rd., Patiala 147001.

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Gurmukh Singh & Sons Auto Parts Pvt. Ltd., Ludhiana 141003.

Narankar Auto Engg. Works, G.T. Rd., Foraya 144409, Jullundur Dist.

Vinko Auto Inds. Pvt. Ltd., Ladowali Rd., Jullundur 144001.

Rajasthan

Autolite of India, Mahar House, Amer Rd., Jaipur 302001.

Hindustan Radiators Ltd., Station Rd., Jodhpur 342001.

Indo-Flex Pvt. Ltd., Tilak Rd., Jaipur 302001.

Standard Auto Parts Pvt. Ltd., Ind. Estate, Jodhpur 343001.

Tamil Nadu

Amalgamations Repco Ltd., G.N.T. Rd., Madhavaram, Madras 600060.

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Axles India Ltd., 180, Mount Rd., Madras 600006.

Beama Mfrs. Pvt. Ltd., A-8, Ambattur Ind. Estate, Ambattur, Madras 600058.

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Brakes India Ltd., Padi, Madras 600050.

Carburettors Ltd., 29, Mount Rd., Madras 600002.

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Elgi Equipment Pvt. Ltd., India House, Trichy Rd., Coimbatore 641018.

Enfield India Ltd., 3-B, Eldams Rd., Madras 600018.

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Hydraulics Ltd., 118, Mount Rd., Madras 600002.

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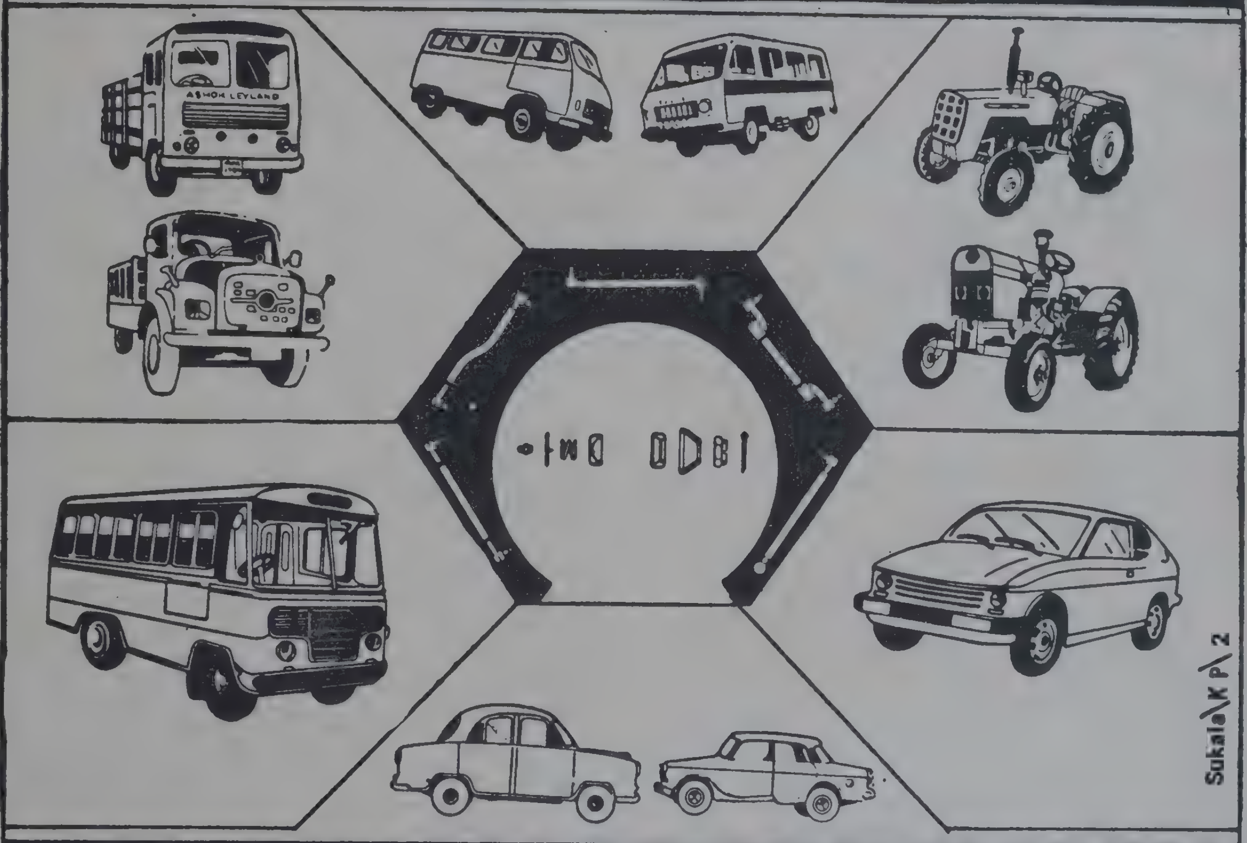

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Shardlow India Ltd., Huzur Gardents, Madras 600011.

Simpson & Co. Ltd., 202, Mount Rd., Madras 600002.

Standard Motor Products of India Ltd., Mount Rd., Madras 600002.

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Sundaram Clayton Ltd., Padi, Madras 600050

Sundaram Industries Pvt. Ltd., TVS Bldgs., West Veli St., Madurai 625001.

Unicorn Pvt. Ltd., 29, Mount Rd., Madras 600002.

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Universal Radiators Pvt. Ltd., Mettupalayam Rd., Coimbatore 641011

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Uttar Pradesh

Abilities India Pvt. Ltd., Gyani Border, Ghaziabad 201006.

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Jain Miniature Bulb Ind., 18, A. Pokharpur, Kanpur 208001.

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Summit Inds., Old Garh Rd., Hapur 245101.

West Bengal

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Autometers Ltd., 6-C, Middleton St., Calcutta 700071.

Bengal Enterprise, 1/4C, Khagendra Chatterjee Rd., Cossipore, Calcutta 700003.

Bharat Automobile Ind., 7, G. Chandra Ave., Calcutta 700013.

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John Fowler (India) Ltd., 136B, R. B. Ave., Calcutta 700029.

Nipha Machinery Manufrs. Pvt. Ltd., 25, N. Subhas Rd., Calcutta 700001

Orient General Ind. Ltd., 111/1, Barrackpore Trunk Rd., Calcutta 700035.

Sankey Wheels Ltd., 3A, Shakespeare Sarani, Calcutta 700016.

Sawalka KFI Pvt. Ltd., 23A, N. Subhas Rd., Calcutta 700001.

Star Sheet Metal Works Pvt. Ltd., 25, Panchanantala Rd., Calcutta 700048

Tecalemit (Hind) Ltd., Gopalpur-Budge Budge Rd., P.O. Sarkarpoor, *Via* Maheshtala 743352, 24-Parganas.

Usha Automobile & Engg. Co. Ltd., 2, Ramgopal Ghosh Rd. Calcutta 700002.

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Veegal Engines & Engg. Ltd., 31, Chittaranjan Ave., Calcutta 700012.

Vijayshree Commercial Pvt. Ltd., 4, India Exchange Place, Calcutta 700001.

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Aphali Pharmaceuticals Ltd., 1184/4, Shivajinagar, Pune 411005.

Arya Vaidya Pharmacy (Cbe.) Ltd., 366, Trichy Rd., Coimbatore 641008.

Arya Vaidyashala, Kottakkal 676503, Kerala.

Ayurveda Rasa Shala, Karve Rd., Pune 411004.

D.K. Sandu Bros. (Chembur) Pvt. Ltd., Chembur, Bombay 400071.

Dhootapapeshwar Pvt. Ltd., 135, N. Desai Rd., Bombay 400004.

Herbolab Ayurvedic Research Foundation, Baug-E-Sara, 1st Flr., 16, Nepean Sea Rd., Bombay 400036.

Indian Herbs Research & Supply Company, P.B. No. 5, Sharda Nagar, Saharanpur 247001.

Jeevantone Products, 17/2, Cambridge Rd., Bangalore 560008.

Khunteta Products, Bazaza Bazar, Alwar 301001. (Rajasthan).

Mangalam Pharmaceuticals & Laboratories, Post Box 6407, Coimbatore 641038.

Mansarovar Pharmacy (Regd.), 0-397/13C/2A/ Meerapur, Gauri Bhawan, Allahabad 211003.

Nipachem Laboratories, 24, Ray St., Calcutta 700020.

Rani Drug House, P.O. Nellayi 680305, Trichur Dist. (Kerala State).

Shree Niranjan Ayurved Sadan, Bawri Gate, Sikar 332001 (Rajasthan).

Shri Saibaba Chemicals & Pharmaceuticals, 1st Flr., 6, Malharrawadi, Dady Seth Agiary Lane, Bombay 400002.

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Zandu Pharmaceutical Works Ltd., Gokhale Rd., South, Bombay 400028.

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(See Bearings – Ball, Bi-Metal, Roller & Needle in this list.)

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Kiron & Co., Nagardas Rd., Andheri, Bombay 400069.

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Motiram Harkrishinlal, 273, Abdul Rehman St., Bombay 400003.

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Write Aids Products Pvt. Ltd., 249, Royapettah High Rd., Madras 600014.

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BARRELS & CASES—WOODEN

Cooper & Sons, D. N., 78/80, Kika St., Gulalwadi, Bombay 400004.

R. K. Enterprises, 16A, Horniman Circle, Bombay 400023.

BARRELS, BUCKETS, DRUMS & STEEL AND TIN CONTAINERS

Andhra Pradesh

Hyderabad Tin Products Ltd., Mushirabad, Hyderabad 500020.

Delhi

Kumar Bros. Sheet Metal Works, Bahadurgarh Rd., Delhi 110006.

Sheet Metal Co. of India, 62, Najafgarh Rd., New Delhi 110015.

Gujarat

Apurva Containers Pvt. Ltd., Navbharat Mills Compound, Naroda Rd., Ahmedabad 380002.

Baroda Containers Pvt. Ltd., Old Padra Rd., Vadodara 390001.

Baroda Tin Works, Apollo House, Pratap Nagar Ind. Estate, Vadodara 390004.

Crown Containers, 167, G. V. M. M., Indl. Complex, Odhav Rd., Ahmedabad 382410.

Gujarat Metal Box Co., Near Naroda Octroi Naka, Ahmedabad 380025.

Kathiawar Metal Tin Works Ltd., Near Lati Plot, Rajkot 360001.

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Metal Box Co. of India Ltd., Jepoo, Mangalore 575001.

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Maharashtra

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Bharat Barrel & Drum Mfg. Co. Pvt. Ltd., Fergusson Rd., Bombay 400013.

Bharat Bucket Factory, 153/55/77, Upper Duncan Rd., Bombay 400008.

Bharat Tank & Steel Co., Podar Chambers, Parsee Bazar St., Bombay 400001.

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Bombay Drums Mfrs., Safia Manzil, 24, Calicut St., Bombay 400001.

Can Mfg. Co. Pvt. Ltd., Plot No. 16, Ind. Estate, Kandivli, Bombay 400067.

Crown Containers, Chowpatty Chambers, Sandhurst Bridge, Bombay 400007.

Diamond Drum & Bucket Factory, 168, Parshuram Pupala Mrg., Two Tanks, Bombay 400008.

Dimple Drums & Barrels Pvt. Ltd., Sita Nivas, Dr. Charatsingh Colony, Andheri Kurla Rd., Bombay 400093.

Eastern Drum & Bucket Factory, Bengali House, 5th Lane, Kamatipura, Bombay 400026.

Himatlal & Co., Tulsi Wadi, Gunpowder Rd., Mazgaon, Bombay 400010.

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Polypack Pvt. Ltd., 353, A-Z, Indl. Estate, Fergusson Rd., Lower Parel, Bombay 400013.

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Raj Bucket Factory, 58B, M. Azad Rd., Rangwala Compound, Bombay 400011.

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Steel Containers Ltd., 149, Jackeria Bazar Rd., Bombay 400015.

Super Tin Containers Pvt. Ltd., D-7, Udyog Sadan II, Central Rd., Andheri East, Bombay 400093.

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Punjab

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Tamil Nadu

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Gopa Engg. Works, 88/89, Suryanarayana Chetty St., Royapuram, Madras 600013.

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Uttar Pradesh

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Bengal Ind., 23A, N. Subhas Rd., Calcutta 700001.

Bhalotia Metal Mfg. Co., 2-D, Jain Temple Rd., Calcutta 700007.

Bharat Barrel & Drum Manufg. Co., 2, Garstin Place, Calcutta 700001.

Bharat Steel Metal Ind. Ltd., 14/2, Old China Bazar St., Calcutta 700001.

Calcutta Iron & Engg. Co. Pvt. Ltd., 109A/A, B.R.B.B. Rd., Calcutta 700001.

Containers & Closures Ltd., 19, N. S. Rd., Calcutta 700001.

Containers (India) Ltd., 18, C. C. Ghosh Rd., Belgachia, Calcutta 700037.

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East India Metal Co. Pvt. Ltd., 41/1B, R. K. Bose St., Calcutta 700003.

Economic Tanks Supply Co., 100, M. Gandhi Rd., Calcutta 700007.

Goodman & Co. (India) Pvt. Ltd., 38, N. Subhas Rd., Calcutta 700001.

Hind Galvanising & Engg. Co. Pvt. Ltd., 96, Garden Reach Rd., Calcutta 700023.

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Laxmi Trdg. Co., 192, J. Bajaj St., Calcutta 700007.

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Metal Press Works Ltd., 165, L. Chitpur Rd., Calcutta 700001.

Roy-Singha Engg. Works, 639, Diamond Harbour Rd., Behala, Calcutta 700034.

Simplex Engg. & Foundry Works, 3A, Garstin Place, Calcutta 700001.

BATTERIES—DRY CELL

Amco Batteries Ltd., Unity Bldgs., Narasimharaja Square, Bangalore 560002.

Crompton Greaves Ltd., Kanjur, Bombay 400078.

Estrella Batteries Ltd., Plot No. 1, Dharavi Rd., Matunga, Bombay 400019.

Geep Indl. Syndicate Ltd., Neelkanth, 7th Flr., 98, Marine Drive, Bombay 400020.

Graphite India Ltd., 31, J. L. Nehru Rd., Calcutta 700016.

Havero Inds. Ltd., Indl. East, Lalbaug, Bombay 400012.

Indo National Ltd., Lakshmi Bhavan, 609, Mount Rd., Madras 600006.

J. K. Batteries, 1-A, Indl. Area, Govindpura, Bhopal 462023.

National Carbon Co., 5, Rustomji Parsi Rd., Calcutta 700002.

Toshiba Anand Batteries Ltd., XXXI/1089, M. G. Rd., Cochin 682011.

Union Carbide India Ltd., 1-3, Brabourne Rd., Calcutta 700001.

BATTERIES—STORAGE

Andhra Pradesh

Auto Globe Batteries, Old Malkapet, Hyderabad, 500001

Mighty Batteries Pvt. Ltd., Mukarramjahi Rd., Hyderabad 500001

Bihar

Bihar Storage Battery Co., Station Rd., Ranchi 834001.

Hindustan Batteries, Purulia Rd., Kantatoli Chowk, Ranchi 834001.

Unique Battery Mfg., Naya Bazar, Dhanbad 826001.

Delhi

Acme Batteries Pvt. Ltd., Grand Trunk Rd., Delhi 110032.

Battery Separators Pvt. Ltd., 1671, Kashmere Gate, Delhi 110006.

Gambhir Battery Co., 9, Gokhale Market, New Delhi 110006.

Globe Engg. Corpn., 2547, Rajguru Rd., Pahar Ganj, New Delhi 110055.

India Battery Separators Co., Pataudi House, New Delhi 110002.

Leela Separators Pvt. Ltd., 153, Ind. Estate, New Delhi 110020.

National Battery Corpn., 131, Okhla Indl. Estate, New Delhi 110020.

Sahni Bros. (India), H 34, Connaught Circus, New Delhi 110001.

Spartan Batteries, 1651, S. P. Mukherji Marg, Delhi 110006.

Super Batteries, 2291/16, Arya Samaj Rd., Karol Bagh, New Delhi 110005.

Supreme Auto Works, B/93, Okhla Indl. Est., Phase II, New Delhi 110020.

Willard India Ltd., Sheetla House, 73-74, Nehru Place, New Delhi 110019.

Gujarat

Autobat Batteries Pvt. Ltd., Autobat House, Behind S.T. Bus Stand, Nadiad 387001.

Bansi Ind. Corpn., Raghunathpura, Surat 395001.

Everest Ind. Corpn. Pvt. Ltd., Pratapnagar, Vadodara 390001.

Jyoti Ltd., Chemical Ind. P.O., Vadodara 390004.

Lakhanpal National Ltd., Makarpura Indl. Area, Vadodara 390010.

Navinchandra Engg. Works, 44, Bharatkhand Cotton Mills Comp., Naroda Rd., Ahmedabad 380009.

Karnataka

Amco Batteries Ltd., Unity Bldgs., Narasimharaja Sq., Bangalore 560002.

UB-MEC Batteries Ltd., MEC Factory Rd., Yeshwantpur, Bangalore 560022.

Madhya Pradesh

Apollo Batteries, Punjab Tyresole Bldg., K.K. Rd., Raipur 492001.

J. K. Batteries, 1-4, Indl. Area, Govindpura, Bhopal 462023.

Maharashtra

Acme Batteries Pvt. Ltd., 16B, Gokhale St., Bombay 400004.

Apollo Batteries, 8, Gokul, Panchavati, Nasik 422003.

Bower Battery Mfg. Co. Pvt. Ltd., 54, S. Vivekanand Rd., Goregaon, Bombay 400062.

Estrella Batteries Ltd., Plot No. 1, Dharavi Rd., Matunga, Bombay 400019.

Excel Battery Inds., 202, Shailay Estate, 8, Udyog Nagar, S. V. Rd., Goregaon West, Bombay 400062.

Himco India Pvt. Ltd., 542, Sandhurst Bridge, Bombay 400007.

Lucas Indian Service Pvt. Ltd., Electric Mansion, A. Marathe Mrg., Prabhadevi, Bombay 400025.

Premier Auto Electric Pvt. Ltd., 69, Tardeo Rd., Bombay 400034.

Regal Battery Corpn., 48/A, Saki Naka, Off Saki Vihar Rd., Bombay 400072.

Rita Battery Mfg. Co., Deccan Gym., Pune 411004.

Ruby Battery Corpn. Pvt. Ltd., 31, French Rd., Chowpatty, Bombay 400007.

Sethi Batteries, Gaddigudam, Nagpur 490001.

Silvex Batteries, P. G. Solanki Path, Bhadkamkar Mrg., Bombay 400007.

Standard Batteries Ltd., Vakola, Santa Cruz East, Bombay 400055.

Super Power Batteries India Pvt. Ltd., Krishna Nivas, M. Parmanand Mrg., Bombay 400004.

Winner Batteries, 7, Udyog Nagar, S. Vivekanand Rd., Goregaon West, Bombay 400062.

Orissa

Orissa Battery Inds., Indl. Estate, Rourkela 769001.

Spark Battery Mfg. Co. Ltd., Ind. Estate, Cuttack 753001.

Tamil Nadu

Ennor Batteries Pvt. Ltd., 5, Greams Rd., Madras 600006.

J. C. Batteries, 155, East Veli St., Madurai 625001.

Standard Batteries Ltd., Oldham Divn., Post Box No. 2635, Madras 600032.

Tamil Nadu Alkaline Batteries Ltd., D-23, Indl. Estate, Madras 600058.

Toshiba Anand Batteries Ltd., 26, Errabalu Chetty St., Madras 600001.

Varuna Battery Inds., 82, Pillayar Koil St., Arumbakkam, Madras 600106.

Uttar Pradesh

Geep Flashlight Inds. Ltd., 28, South Rd., Allahabad 211001.

King Battery Works, 119, Grand Trunk Rd., Kanpur 208012.

Willard India Ltd., Sikandrabad Ind. Estate, Sikandrabad 203205, Bulandshahr Dist.

West Bengal

Accurate Power Ind., 3/1A, Barrackpore Trunk Rd., Calcutta 700002.

Auster Battery Mfg. Co., 302/2, A.P.C. Rd., Calcutta 700009.

Battery Mfg, Cartel, 468. Calcutta Jessore Rd., Calcutta 700028.

Bharat Battery Mfg. Co. Pvt. Ltd., 238A, Acharya J. C. Bose Rd., Calcutta 700020.

Calcutta Storage Battery Co. Pvt. Ltd., 42, G. C. Ave., Calcutta 700013.

Chloride India Ltd., 59E, Chowringhee Rd., Calcutta 700020.

Eastern Battery Ind., 1-B, Paul St., Calcutta 700004.

Electrical Storage Battery Mfg. Co., P. 4, P. C. Nahar Ave., Calcutta 700013

Free India Dry Accumulators Ltd., 36, Chowringhee Rd., Calcutta 700016.

Oriental Battery Mfg. Co., Grand Trunk Rd., South Howrah 711101.

P. Kishore & Co., 96-A, Chittaranjan Ave., Calcutta 700012.

Sun Battery Co. Pvt. Ltd., 166, U. C. Bannerji Rd., Calcutta 700001.

Supreme Battery Mfg. Co. Pvt. Ltd., M. Ganguly Rd., Calcutta 700002.

Tigon Battery Products, 14, G. C. Mukerjee Rd., Calcutta 700002.

BATTERY CHARGERS & ELIMINATORS

Andhra Pradesh

Kwick Sales, 3-6-369/A9, Rd. No. 1, Himayatnagar, Hyderabad 500029.

Delhi

Bandish Bros., 53, Panchkuin Rd., New Delhi 110001.

Emgee Corpn., 1543, Bhagirath Place, Chandni Chowk, Delhi 110006.

Intercontinental Agencies Pvt. Ltd., Atma Ram Singh Mansion, 1/21, A. Ali Rd., New Delhi 110002.

Kandhari Radio Corpn., B-103, Naraina Indl. Area, Phase 1, New Delhi 110028.

Modern Trading Co. (Delhi) Pvt. Ltd., Bush House, XI/3833, Pataudi House Rd., Delhi 110006.

Sham Ravindra & Co., 23, New Qutab Rd., Delhi 110006.

Gujarat

Continental Electronics, 177/4, Naroda Indl. Estate, Naroda 382330. (Ahmedabad Dist.).

Karnataka

Electric Power Devices Co., Canara Mutual Bldg., 4, Residency Rd., Bangalore 560025.

Mysore Thermo Electric Pvt. Ltd., 36, Peenya Ind. Area, 3rd Phase, Peenya, Bangalore 562140.

Maharashtra

Asian Traders, 60-A, Girgaum Rd., Bombay 400004.

Chhabi Electricals, 20, Anupam Indl. Est., Bombay 400080.

Engg. Projects Corpn., 11/175, Neelkanta Villa, Garodianagar, Bombay 400077.

General Auto Electric Corpn., Dr. Bhadkamkar Mrg., Near Minerva Talkies, Bombay 400007.

Ruttonsha-International Rectifier Pvt. Ltd., International House, Vikhroli, Bombay 400083.

Semiconductors Ltd., Radia House, Rampart Row, Bombay 400023.

Star Delta Electricals, Bharat Coal Compound, Bail Bazar, Bombay 400070.

Universal Industrial Products, A-27, Block B, Ghatkopar Indl. Estate, Bombay 400086.

Tamil Nadu

Associated Engineers, Post Box 373, Madras 600002.

G. Janshi & Co., 2/163, Mount Rd., Madras 600002.

Uttar Pradesh

Uptron Shreetronix Ltd., 6-5, Indl. Area Site IV, Sahibabad, 201010. Ghaziabad Dist.

West Bengal

Metro Ind. Works, 94, B. Ghose Rd., Calcutta 700040.

Summit Pvt. Ltd., 3, Esplanade East, Calcutta 700069.

BEARINGS—BALL, BI-METAL, ROLLER & NEEDLE

Andhra Pradesh

HMT Bearings Ltd., Moula Ali, Hyderabad 500040.

Indo-Nippon Precision Bearings Ltd., Moula Ali, Hyderabad 500040.

Delhi

Hind Electronic Ind., 69, Najafgarh Rd., New Delhi 110015.

Shriram Needle Bearing Inds. Ltd.; D.C.M. Premises, Bara Hindu Rao, Delhi 110006.

Gujarat

Accurate Engg. Co., F-24, G.I.D.C. Estate, Vadal Rd., Junagadh 362001.

Austin Engg. Co. Pvt. Ltd., 101, GIDC Estate, Vadal Rd., Junagadh 362003.

Dynamic Engg. Co., 268/269, GIDC, Wadhwan City 363030.

Precision Bearings India Ltd., Maneja, Vadodara 391710.

Ruby Bearings Pvt. Ltd., Lodhawad Chowk, Gondal Rd., Rajkot 360001.

Suessen Textile Bearings Ltd., Makarpura, Vadodara 390010.

Karnataka

Bimetal Bearings Ltd., L/1, Lavelle Rd., Bangalore 560001.

Karnataka Ball Bearing Corpn. Ltd., 21-22B, Belavadi Indl. Estate, Hunsur Rd., Mysore 571186.

Premier Bearing Co., M S.R. Prasad Ind. Estate, Bengalore 560054.

Rollon Bearings Pvt. Ltd., 17/1A, Asker Cross Rd., Bangalore 560052.

Maharashtra

Amber Bearing Mfg. Co. Pvt. Ltd., G-3, MIDC Hingna Ind. Area, Hingna Rd., Nagpur 440016.

Antifriction Bearings Corpn. Ltd., 402-B, Poonam Chambers, A. Besant Rd., Bombay 400018.

Associated Bearing Co. Ltd., Chinchwad, Pune 411033.

Bearings & Bushing Corpn., 10, Anupam Ind. Estate No. 3, Opp. Ralliwolf Ltd., Mulund, Bombay 400080.

Gleitlager (India) Pvt. Ltd., Manu Mansion, 16, Bhagat Singh House Rd., Bombay 400023.

J. Mangsun & Co., Plot No. A-483, Rd. No. 24, Wagle Indl. Estate, Thane 400604.

KC Bearings Pvt. Ltd., 4, Kirti Kunj, 14th Rd., Khar, Bombay 400052.

Needle Roller Bearing Co. Ltd., 2nd Pokhran Rd., Thane 400606.

New Era Bearing Industries, B-25, Hingne Indl. Estate, Nagpur 440016.

New Haven Bearings Pvt. Ltd., Pandyan House, S. Bhagatsingh Rd., Bombay 400038.

New Heaven Steel Ball Corpn. Pvt. Ltd., 309, P. D.'Mello Rd., Bombay 400001.

Precision Bearings (I) Ltd., Jolly Maker Chambers 1, 8th Flr., 227, Backbay Rec., N. Point, Bombay 400021.

Protecto Engg. Pvt. Ltd., Beaumon Chambers, 29/33, N. Master Rd., Bombay 400023.

Safe Ball Bearing Corpn., 95, Nagdevi Cross Lane, Bombay 400003.

Shefko India Bearing Co. Ltd., M. Gandhi Memorial Bldg., N. Subhas Rd., Bombay 400002.

Union Bearing Mfg. Co., 511, Prasad Chambers, Tata Rd. No. 2, Bombay 400004.

Universal Bearings Co. Pvt. Ltd., 11, Temple View, Hughes Rd., Bombay 400007.

Rajasthan

National Engineering Ind. Ltd., Jaipur 302001.

Tamil Nadu

Asian Bearings Ltd., 14, Peter's Rd., Royapettah, Madras 600014.

Bimetal Bearings Co. Pvt. Ltd., Huzur Gardens, Sembiam, Madras 600011.

Upper India Bearings Pvt. Ltd., A-23, Ind. Estate, Madras 600032.

West Bengal

Ambica Mill Stores, 138, B.R.B.B., Calcutta 700001.

General Bearing & Engg. Co., 138, B. R. B. B. Rd., Calcutta 700001.

SKF Ball Bearing Co. Ltd., 11, R. N. Mukherjee Rd., Calcutta 700001.

Shriram Bearings Ltd., 3A, Shakespeare Sarani, Calcutta 700016.

Steelco Products, 138, B.R.B.B. Rd., Calcutta 700001.

BELTINGS, HAIR, V-BELTS ETC.

Ajanta Rubbers, Uchani, G. T. Rd., Karnal 132001. (Haryana).

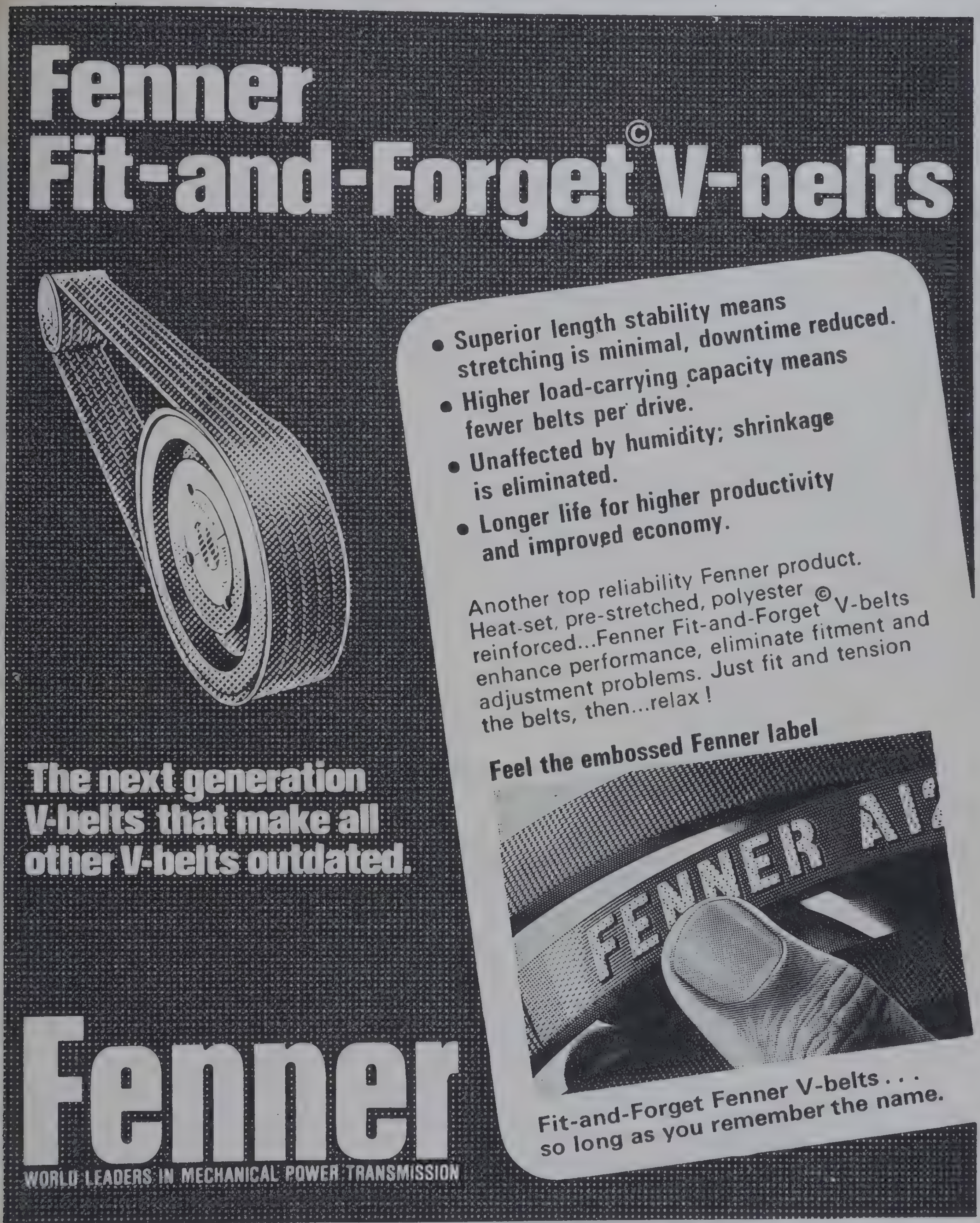
Andrew Yule & Co., Ltd., Belting Dn., Yule House, 8, Clive Row, Calcutta 700001.

Asia Belting & Spg. Mills Ltd., 91, Netaji Subhas Rd., Calcutta 700001.

Bengal Belting Works Ltd., 2, Dalhousie Square East, Calcutta 700001.

Birkmyre Brothers Pvt. Ltd., 87, Stephen House, Calcutta 700001.

Eastern Belting & Cotton Mills Pvt. Ltd., 20, N. Subhas Rd., Calcutta 700001.



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Express Industrial Services Pvt. Ltd., Union Bank Bldg., Dalal St., Bombay 400023.

Fenner (India) Ltd., 3, Madurai-Melakkal Rd., Madurai 625016. (T. Nadu).

Gimplex Rubbers, 107, Sahyog, 58, Nehru Place, New Delhi 110019.

Goodyear India Ltd., Godrej Bhavan, Mathura Rd., New Delhi 110055.

Gordon Woodroffe (Belting) Pvt. Ltd., 36, Rajaji Salai, Madras 600001.

Hilton Rubbers Pvt. Ltd., 209, Ansal Bhavan, K. Gandhi Mrg., New Delhi 110001.

Himalaya Rubber Products Ltd., 18-B, Brabourne Rd., Calcutta 700001.

Industrial Equipment Syndicate, 15, Nand Deep Indl. Estate, Kondivita Rd., J. B. Nagar, Bombay 400059.

K. K. Rubber Co. (India) Pvt. Ltd., A-3/15, Asaf Ali Rd., New Delhi 110002.

Leather Goods Depot, 94, Jolly Maker Chambers No. 2, N. Point, Bombay 400021.

Lewis & Taylor Pvt. Ltd., Commerce House, Currimbhoy Rd., B. Estate, Bombay 400038.

Mercury Rubber Mills, 2/7, D. B. Gupta Rd., New Delhi 110055.

Murarka Pvt. Ltd., Capital Commercial Centre, Ashram Rd., Ahmedabad 380009.

Navyug Auto & Allied Inds. Pvt. Ltd., G.T. Rd., Bye Pass, Jullundur 144004.

Nirlon Synthetic Fibres & Chemicals Ltd., Belting Dn., 254 B, Dr. A. Besant Rd., Worli, Bombay 400025.

Northland Rubber Mills, 48, G. B. Rd., Delhi 110006.

NTB International, A/302, Rd. 32, Wagle Estate, Thane 400604.

Pondy Rubber Products, A-12, Mettupalayam Ind. Estate, Pondicherry 605001.

Rostron & Co. Pvt. Ltd., 10, Govt. Place East, Calcutta 700069.

Samsons Rubber Inds. Pvt. Ltd., Plot 3, Sidco Ind. Estate, Madras 600098.

Serampore Belting Works Pvt. Ltd., Serampore 712201. Hooghly Dist.

Super Rubber Enterprises (Regd.), 71 3, Mile Stone, G. T. Rd., Karnal 132001. (Haryana).

Tradesco (India) Rubber Works, 170, G. V. M. Vasahat, Odhav, Ahmedabad 382410.

Vikram Belts Ltd., 12-G, Shanti Kunj, Opp. G.P.O., Pune 411001.

Vipul Inds., Todi Estate, Sun Mills Compd., Lower Parel, Bombay 400013.

Yenpeyess Rubber Pvt. Ltd., 52, Mundaga Nadar St., Sivakasi 623123.

BICYCLES & ACCESSORIES

Assam

Everest Cycles Ltd., Gopinath Nahar, Gauhati 781001.

Delhi

A. K. Cycle Ind., Dilshad Garden, Delhi 110032.

H. R. Bhalla & Sons Pvt. Ltd., 3, Faiz Bazar, Delhi 110002.

Hindustan Monark Pvt. Ltd., 20/1, Asaf Ali Rd., New Delhi 110002.

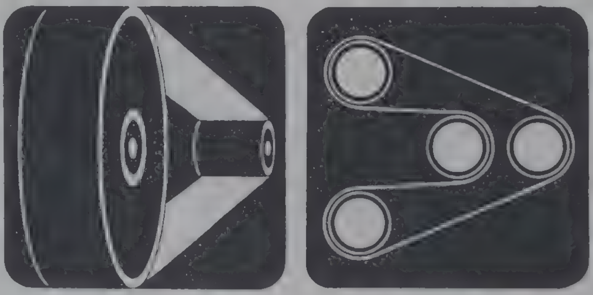
Hitkari Bros. of Delhi, 9, Faiz Bazar, Delhi 110002.

Indian Cycle & Wire Inds., 30, DLF Indl. Area, New Delhi 110015.

Matchless Ind. of India, 236, DLF Indl. Area, New Delhi 110015.

New Era Engg. Co., 26, D.L.F. Ind. Colony, New Delhi 110015.

NYLON SANDWICH BELTINGS



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TEL: 502118, GRAM: EXTEMULTUS

Road King Cycle Co., A-100, Cycle Market, Jhandewalan, New Delhi 110055.

Road King Cycle Ind., 16/194, Faiz Rd., Delhi 110005.

Tobu Enterprises Pvt. Ltd., 8/29, Indl. Area, Kirtinagar, New Delhi 110015.

Zenith Cycle Ind., 9, N. S. Marg, New Delhi 110002.

Haryana

Atlas Cycle Ind. Ltd., Sonepat 131001.

Wearwell Cycle Co. (I) Ltd., Faridabad 121001.

Karnataka

Electro Anil Pvt. Ltd., 51/7, Ist Main, Bannerghatta Rd., Bangalore 560030.

Kerala

Bharat Cycle Ind., Vadakevilla, Quilon 691001.

Madhya Pradesh

Central Cycle Ind., Bhagirathpura, Indore 452001.

Maharashtra

Auto Accessories (I) Ltd., Old Kurla, Bombay 400070.

Bombay Cycle Mfg. Co., 3-B, Udyog Nagar, S. V. Rd., Goregaon (West), Bombay 400062.

Hamilton Industries Pvt. Ltd., Tulsipipe Line Rd., Off Haines Rd., Bombay 400013

Matchless Automobile & Engg. Inds., 42, Benham Hall Lane, Bombay 400004.

National Bicycle Corpn. of India Ltd., 250, Worli, Bombay 400025.

Transmissions Pvt. Ltd., India House, Opp. G.P.O., Bombay 400001.

Pondicherry

Hema Cycles & Gen. Inds., C-15, Mettupalayam Ind. Estate, Pndicherry 605001.

Punjab

Aero Engg. Works, Gill Rd., Ludhiana 141003.

Anand Cycle Ind., 688, Indl. Area 'B', Ludhiana 141003.

Auto Wheel Ind., 137-C, Indl. Est., Ludhiana 141003.

Avon Cycles Ltd., Ind. Area, Ludhiana 141003.

Bicycle Mfg. Co.-op. Ind. Society Ltd., Ludhiana 141001.

Birdi Cycle Ind., 565, Ind. Area 'B', Ludhiana 141003.

Chawla Cycle Ind., Railway Rd., Jullundur 144001.

Dhingra Cycle Ind., Nirmal Mkt., Gill Rd., Ludhiana 141003.

Guru Nanak Engg. Works, Partap Nagar, Ludhiana 141003.

Hero Cycles, Hero Nagar, G.T. Rd., Ludhiana 141003.

Highway Cycle Inds. Ltd., 698, Indl. Area B, Ludhiana 141003.

Kapson Ind., Partap Nagar, St. 6, Ludhiana 141003.

Kashmir Cycle Ind., 742, Muradpura, Millerganj, Ludhiana 141003

Masco Cycle Ind., 743, Ind. Area 'B', Ludhiana 141003.

Metro Cycle of India, 503, Ind. Area 'D', Ludhiana 141003.

Navyug Bicycle Ind., 52/53-R, Ind. Area 'B', Ludhiana 141003.

Newage Cycle Ind., 657, Vishwakarma St., Ludhiana 141003.

Punjab Cycle Parts Mfg. Co., G.T. Rd., Millerganj, Ludhiana 141003.

Ralson Cycles Pvt. Ltd., Ralson Nagar, G.T. Rd., Ludhiana 141003.

Roadmaster Ind. Of India Ltd., Ind. Area, Rajpura 140401.

Rockman Cycle Ind., 930, Ind. Area 'B', Ludhiana 141003.

Rolex Cycle Ind., 726, Ind. Area 'B', Ludhiana 141003.

Shaktiman Cycle Ind., Vishwakarma St., 1, Ludhiana 141003.

Sunflower Cycles Pvt. Ltd., Ind. Area 'B', Ludhiana 141003.

Super Cycle & Allied Ind., 3, Gill Rd., Ludhiana 141001.

Surpal Inds., D-18, Focal Pt., Ludhiana 141001.

Trueline (I) Ind., 724, Ind. Area 'D', Ludhiana 141003.

Vespa Cycle Ind., 49-R, Ind. Area 'B', Ludhiana 141003.

Rajasthan

Elite Engg. Works, Jodhpur 342001.

Tamil Nadu

Govt. Cycle Assembly Unit, Thanjavoor 613001.

T.I. Cycles of India Ltd., Ambattur, Madras 600018.

T. I. Diamond Chains Ltd., Avadi, Madras 600053.

Wheels & Rim Co. of India Ltd., Sembiam, Madras 600001.

Wright Saddles of India, 11/12, N. Beach Rd., Madras 600001.

Uttar Pradesh

Hind Cycles Ltd., Hind Nagar, Ghaziabad 201003.

Popular Cycle Mfg. Co. Pvt. Ltd., Bodla, Agra 282001.

Rampur Engg. Co. Ltd., Rampur 244901.

United Mfg. Co., 20E, Naini, Allahabad 211008.

United Wheels Pvt. Ltd., 180, G.T. Rd., Sahibabad, Ghaziabad 201001.

Wheel Inds. of India, Bonja Patel Marg, Ghaziabad 201003.

West Bengal

Ancillary Inds. Forging Pvt. Ltd., Block D, Indl. Est., Kalyani 741235.

B. S. Cycle Ind., K. Bhattacharjee Lane, Santragachi, Howrah 711104.

Dwarka Industrial Development Pvt. Ltd., 14, Canal St., Calcutta 700014.

Indo-Japanese Inds. Ltd., 14, Canal St., Calcutta 700014.

Nundy & Co., P62A, Bentinck St., Calcutta 700001.

Sen-Raleigh Ind. of India Ltd., Mercantile Bldg., Lallbazar St., Calcutta 700001.

BISCUIT MAKING PLANTS

Autobisk Plants Co., East Cross 32, Asoka Rd., Mysore 570001.

Balu Bakery Machines, 1796, E. W. S. Colony, Annanagar, Madras 600040.

Industrial Engg. Products, 38, Police Court Lane, Bombay 400001.

Larsen & Toubro Ltd., L & T House, Ballard Estate, Bombay 400038.

N. V. Inds. Pvt. Ltd., Sudha Park, Raja S. C. Mullick Rd., Bademasur, Calcutta 700086.

Sembhi Industries (Regd.), 117, Aman Nagar, Jullundur 144004 (Punjab).

BISCUITS & CONFECTIONERY

Andhra Pradesh

Ampro Food Products, 15-4-188, Osmanshahi Rd., Hyderabad 500012.

Asoka Biscuit Works, 2-3-745, Amberpet, Hyderabad 500013.

Interfood Pvt. ltd., 1-2-412/2, Gagan Mahal Colony, Domalguda, Hyderabad 500029.

J. B. Mangharam & Co., Tank Bund, Hyderabad 500029.

Shalimar Biscuits Pvt. Ltd., Indl. Est., Hyderabad 500039.

Bihar

Lucky Biscuit Co., Hajiganj, Patna 800008.

Delhi

Britannia Industries Ltd., 33, Rampura Marg, Delhi 110035.

Dalmia Biscuits Pvt. Ltd., 27, Akbar Rd., New Delhi 110011.

Karnataka

A. C. Gangaram & Co., East Cross 32, Asoka Rd., Mysore 570001.

Azad Ind., Azad House, Jeppu, Mangalore 575001.

Krisp Biscuit Co., 109, Panthrapalya, Mysore Rd., Bangalore 560039.

Kwality Food Products, Mysore Rd., Bangalore 560039.

LVT Products, Post Box 26, Hubli 580002.

Mangharam & Sons, Tumkur Rd., Bangalore 560022.

Marvel Products, 115/34, 1st Flr., 8th Cross, Wilson Gardens, Bangalore 560027.

National Products, 135, Kaval Byrasandra, Bangalore 560006.

South India Food Products Pvt. Ltd., 25 & 25/1, Vinod Complex, J. C. Rd., Bangalore 560002.

Kerala

Pearl Food Products, Iramalloor 688537.

Madhya Pradesh

Arya Confectionery Works, 111, Ind. Estate, Indore 452003.

J. B. Mangharam & Co., Pvt. Ltd., P.O. Residency, Gwalior 474005.

V. G. Confectionery & Biscuit Factory, 88, Indl. Est., Indore 452003.

Maharashtra

B. N. Biscuit & Confectionery Works, Hyathibaugh, Love Lane, Mazgaon, Bombay 400010.

Britannia Industries Ltd., Reay Rd. East, Mazgaon, Bombay 400010.

Hindustan Biscuit & Confectionery Works, Pipe Rd., Bombay 400070.

Parle Products Mfg. Co. Pvt. Ltd., Belvandi House, Dr. A. Besant Rd., Bombay 400025.

Renown Biscuit Co., Connaught Rd., Byculla, Bombay 400027.

Sathe Biscuit & Chocolate Co. Ltd., 820, Bhawani Peth, Pune 411002.

Shangrila Food Products Ltd., 60, Great Social Bldg., Sir P. Mehta Rd., Bombay 400001.

Pondicherry

Aurofood Pvt. Ltd., P.O. Auroville 605101.

Punjab

Bakeman's Home Products, Malwa Picture Palace Bldg., Patiala 147001.

Rieta Biscuit Co. Pvt. Ltd., Factory Area, Patiala 147001.

Tamil Nadu

Britannia Industries Ltd., M.T.H. Rd., Padi, Madras 600050.

Dollar Food Corpn., 42, Mount Rd., Guindy, Madras 600032.

Uttar Pradesh

Annapurna Biscuit Mfg. Co., 84/67, G. Trunk Rd., Kanpur 208003.

Kaka Biscuits Mfg. Co., 108/131, Sisamau Bazar, Kanpur 208012.

Lawrie Biscuits, 4, Lalbaug, Lucknow 226001.

Melrose Biscuit Co., Subash Rd., Aligarh 202001.

West Bengal

Britannia Industries Ltd., 15, Taratola Rd., Alipore, Calcutta 700053.

Kolay Biscuit Co. Pvt. Ltd., Kabi Sukanta Sarani, Calcutta 700010.

Kusum Products Ltd., Bombay Mutual Bldg., 9, Biplabi Trailakya Maharaj Sarani, Calcutta 700001.

Lily Biscuit Co. Pvt. Ltd., 3, R. K. Sen Lane, Calcutta 700004.

Santosh Biscuit Co. Pvt. Ltd., 179A, Manicktola Main Rd., Calcutta 700054.

BITUMEN

Heilgers Ltd., Chartered Bank Bldgs., Calcutta 700001.

Petroleum Instruments Corpn., Room 4A, 5th Flr., 2, G. C. Ave., Calcutta 700013.

Southern Organo Products Pvt. Ltd., 27, Pulla Ave., Shenoynagar, Madras 600030.

Universal Tar & Bitumen Products, 12, B.B.D. Bagh (E), Calcutta 700001.

BLADES—HACKSAW & BANDSAW

Axia Engg. Co., A-16, Indl. Estate, Sirhind Rd., Patiala 147001 (Punjab).

Crescent Iron & Steel Corpn. Ltd., Industrial Estate, Lalbaug, Bombay 400012.

Cutfast Enterprises, 1604, Madarsha Rd., Kashmere Gate, Delhi 110006.

Donromos Pvt. Ltd., Caves Rd., Andheri East, Bombay 400093.

Eastern Steel Industries, 21-B, Noble Chambers, S. A. Brelvi St., Bombay 400001.

Gwalior Tools Ltd., Maharajpura Indl. Area, Gwalior 474005.

Hada Steel Products Ltd., Sector 15/A/3, Faridabad 121002.

Harbanslal Malhotra & Sons Pvt. Ltd., 12, New C.I.T. Rd., Calcutta 700012.

Indo Hacks Ltd., 70, Nagdevi Crosslane, Bombay 400003.

Krishna Engg. Agencies, 118, Angappa St., Madras 600001.

Laldee Pvt. Ltd., Vijay Press Bldg., Naya Bazar, Delhi 110006.

Macditex Engg. Products, Behind Ajit Mills, Rakhial Rd., Ahmedabad 380023.

Maharashtra Commodity Trdg. Co. Pvt. Ltd., 159, Churchgate Reclm., Bombay 400020.

Moonwin Tools, 38, Nagdevi Crosslane, Bombay 400003.

P. U. Coatings, 11, Bank St., Bombay 400023.

Punam Machines & Tools, 10, G. C. Ave., Calcutta 700013.

S. S.Miranda Pvt. Ltd., Ashoknagar, Kandivli, Bombay 400067.

Technis Inds., 20-A, Noble Chambers, S. A. Brelvi St., Bombay 400001.

Zenith Engrs., 1/18V, Asaf Ali Rd., New Delhi 110002.

BLADES—SAFETY

Centron Industrial Alliance Pvt. Ltd., Ind. Assurance Bldg., Opp. Churchgate Station, Bombay 400020.

Edalji Kerawalla & Co., Baria Bldg., Opp. Crawford Market, Bombay 400003.

Escorts Ltd., Pratap Bldg., Connaught Place, New Delhi 110001.

Harbanslal Malhotra & Sons Pvt. Ltd., New C.I.T. Rd., Calcutta 700012.

Hind Razor & Blade Co. Ltd., Ind. Assurance Bldg., Churchgate, Bombay 400020.

Indo-Swing Private Ltd., Narasapur Rd., Balanagar, Hyderabad 500037.

Malhotra International Ltd., India House, Opp. G.P.O., Bombay 400001.

National Razors & Blades Ltd., 4, Dalhousie Sq. East, Calcutta 700001.

Sharpedge Ltd., 34, Okhla Ind. Estate, New Delhi 110020.

Spencer & Co. Ltd., Mount Rd., Madras 600002.

BLADES—SHEARS, KNIVES

Bishimal Vinod Kumar, 132-134, Pradhan Bldg., Sardar V. P. Rd., Dongri, Bombay 400009.

Bombay Alloy Steel Ind. Pvt. Ltd., 87, Nagdevi Cross Lane, Bombay 400003.

Indo Poly Machines Corpn., Chowk Islamabad, Amritsar 143002.

Maneklal & Sons (Calcutta), 33, G. C. Ave., Calcutta 700013.

R. S. Traders, People's Insurance Bldg., Sir P. Mehta Rd., Bombay 400001.

Shekhat Engg. Inds. Pvt. Ltd., Off Saki-Vihar Rd., Chandivali, Bombay 400072.

Wudtools, Dada Manzil, 67/69, Mohamedali Rd., Bombay 400003.

BOATS & MOTOR LAUNCHES

Mandovi Marine Pvt. Ltd., Gokul, 9/5, New Palasia, Indore 452001.

Rocklite Fibre Glass Industries, B-57, Wagle Ind. Est., Thane 400604.

Tufflite Plastics Pvt. Ltd., P. Box 849, Coimbatore 641004.

BOILER LAGGINGS & COMPOSITIONS

Commonwealth Insulation Chemicals & Fertilisers Pvt. Ltd., 38, Nariman Rd., Bombay 400001.

Ellore Engg. Co. Ltd., 13/7, Thiruneermala Rd., Chromepet, Madras 600044.

Lloyd Insulations (India), 6, Middleton St., Calcutta 700016.

BOILERS

Andhra Pradesh

Bharat Heavy Plate & Vessels Ltd., Visakhapatnam 530001.

Bihar

Tata Engg. & Locomotive Co. Ltd., Jamshedpur 831001.

Wakefield Equipments (India) Pvt. Ltd., Exhibition Rd., Patna 800001.

Gujarat

Reynolds Engrs. Pvt. Ltd., 47, GIDC Est., Vatva, Ahmedabad 382445.

SLM-Maneklal Ind., Vatwa, Ahmedabad 382440.

Warm Stream, Anand Sojitra Rd., Vithal Udyognagar 388121. Kaira Dist.

Haryana

Saraswati Ind. Syndicate Ltd., Yamunanagar 135001.

Karnataka

Sree Jayalakshmi Enterprise, No. 10, R. V. Layout, Platform Rd., Seshadripuram, Bangalore 560020.

Maharashtra

Acme Engg. & Allied Products Pvt. Ltd., 3-15, V. Savarkar Marg, Bombay 400028.

B. R. Hermann & Mohatta (India) Pvt. Ltd., Mustafa Bldg., Sir P. Mehta Rd., Bombay 400001

Batliboi & Co. Pvt. Ltd., V. B. Gandhi Mrg., Bombay 400023.

Citric India Ltd., Empire House, Dr. D. N. Rd., Bombay 400001.

FMC Engg. Works Pvt. Ltd., Sonal Ind. Estate, Off Saki-Vihar Rd., Bombay 400072.

Heiza Boilers India Pvt. Ltd., 301, Regent Chambers, Nariman Point, Bombay 400021.

Indra Farbricators, 44, Yusuf Bldg., V. Nariman Rd., Bombay 400001.

Industrial Boilers Pvt. Ltd., 701-C, Poonam Apartments, Dr. A. B Rd., Bombay 400018.

ISGEC John Thompson Ltd., Great Social Bldg., Sir P. Mehta Rd., Bombay 400001.

Jainex Ltd., Jolly Maker Chambers No. II, 225, N. Point, Bombay 400021.

Jignesh Metal Mfg. Co., Subash Nagar, Asian Chemical Compound, Jogeshwari (East), Bombay 400060.

Kalpana Boilers & Chemical Plants Mfg. Co., 18-A, Kailash Park, Chirag Nagar, LBS Mrg., Ghatkopar West, Bombay 400086.

Kosha (India) 1972, 2, N. K. Ind. Estate, Viswashnagar, Off Aarey Rd., Goregaon East, Bombay 400063.

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R

Laxmi Boilers, 12-A, Chandivali Indl. Estate, Saki Vihar Rd., Bombay 400072.

Lipi Boilers Pvt. Ltd., Mahendra Chambers, Mayfair-A, 4, Dhole Patil Rd., Pune 411001.

Nestler Boilers Pvt. Ltd., Dalamal Chambers, Sir V. Thackersey Rd., Bombay 400020.

New Standard Engg. Co. Ltd., NSE Estate, Goregaon (East), Bombay 400063.

Nirmal Tdg. Corpn., 289/91, Nagdevi St., Bombay 400003.

Premier Boilers Pvt. Ltd., 16, Nimmco Tiles Compd., Indl. Estate, Lalbaug, Bombay 400012.

Saurashtra Engg. Corpn., Pvt. Ltd., 106-7, Bazar Ward, Khetani Ind. Estate, Bombay 400070.

Shaparia Dock & Steel Co. Pvt. Ltd., Sewree Fort Rd., Bombay 400015.

Shubh Engg. Corpn., 50, Issaji St., Bombay 400003.

Steel Plant Pvt. Ltd., 205, Dr. A. Besant Rd., Bombay 400018.

Thermax Pvt. Ltd., 4, Bombay-Pune Rd., Pune 411005.

Tube-Weld Engg. Works Pvt. Ltd., 118, P. D'Mello Rd., Bombay 400009.

Varsha Boilers Pvt. Ltd., 5, New Marine Lines, Bombay 400020.

Walchandnagar Ind. Ltd., Walchandnagar 413114, Pune Dist.

Wansons (India) Pvt. Ltd., Chinchwad, Pune 411019.

Westerwork Engrs. Pvt. Ltd., 15, Bhandup Village Rd., Bombay 400078.

Wima India Ltd., 505, Churchgate Chambers, 5, New Marine Lines, Bombay 400020.

Orissa

Pressels Pvt. Ltd., Madhupatna, Cuttack 753010.

Utkal Machinery Ltd., Rourkela 769001.

Punjab

Leader Engg. Works, Ind. Area, Jullundur 144001.

Tamil Nadu

K. C. P. Ltd., 38, Mount Rd., Madras 600006.

West Bengal

Acc-Vickers-Babcook Ltd., Durgapur 713206.

Calorex India Pvt. Ltd., 13, Camac St., 2nd Flr., Calcutta 700017.

Garden Reach Shipbuilders & Engrs. Ltd., 43/46, Garden Reach Rd., Calcutta 700024.

Heiza-Boilers (India) Pvt. Ltd., 2-B, Burdwan Rd., Alipore, Calcutta 700027.

ISGEC John Thompson Ltd., 8, C.R. Ave., Calcutta 700013.

J. Stone & Co., (India) Pvt. Ltd., 16, Tartolla Rd., Calcutta 700027.

Jainex Ltd., 16, N. Subhas Rd., Calcutta 700001.

Jessop & Co., Ltd., 63, N. Subhas Rd., Calcutta 700001.

MacNeill & Magor Ltd., 2, Fairlie Place, Calcutta 700001.

Marshall Sons & Co. (India) Ltd., 75-C, Park St., Calcutta 700016.

Thapar Steinmuller Boiler Co. Ltd., 25, Brabourne Rd., Calcutta 700001.

BOLTS, NUTS, RIVETS & SCREWS

Agarwal Steel Inds., Military Rd., Marol, Bombay 400069.

Alexandra Engg. Works Pvt. Ltd., 29, Quay St., Bombay 400010.

Aminchand Bholanath, Tanda Rd., Jullundur 144001.

Ansha Engg., 13/199, Kannamwarnagar, Vikhroli, Bombay 400083.

Associated Engg. Inds., E-75, Indl. Area, Jullundur 144004.

Atul Brass Inds., 44, Digvijay Plot, Jamnagar 361005.

Auto & General Engg. Co., 204, Okhla Indl. Estate, New Delhi 110020.

Avdel (I) Ltd., 409, Himalaya House, Palton Rd., Bombay 400001.

B. H. Steel Industries, 110, N. Dhuru St., Bombay 400003.

Banegar Bros. Engg. Works, 139, Bapu Khote St., Bombay 400003.

Bidco Studs Pvt. Ltd., Wardon House, 2nd Flr., Sir P. M. Rd. Bombay 400001.

Bina Industries, Hararwala Bldg. Compd., Islampura, Bombay 400004.

Bolting Mfg. Co., Mehra Ind. Estate, Andheri Kurla Rd., Bombay 400072.

Bolts, Nuts & Forging Co., 47, Gaushala Rd., Liluah 711204, (W. Bengal).

C. S. K. Industries, 219/C, Old China Bazar St., Calcutta 700001.

Echjay Inds., Pvt. Ltd., Kanjur Village Rd., Bombay 400078

Fit Tight Nuts & Bolts Ltd., Old Ashram, Andheri Kurla Rd., Bombay 400069.

GRA Engg. Works, D5, Indl. Estate, Gorwa Rd., Vadodara 390016.

Guest Keen Williams Ltd., 97, Andul Rd., Howrah 711101.

Harshad Engg. Works, 356, Samuel St., Bombay 400003.

Heena Nut Bolt Inds., 91, Nagdevi Cross Lane, Bombay 400003.

Hindustan Screws, Plot B-21, Indl. Estate, Mettupalayam, Pondicherry 605010.

India Nut Bolt Mfg. Co., 57, Durgadevi St., Kumbharwada, Bombay 400004.

Jagatjit Fasteners Pvt. Ltd., Factory Area, Kapurthala 144601.

Jambo Engg. Pvt. Ltd., Shama Indl. Estate, Walbhat Rd., Goregaon East, Bombay 400063.

Jayant Metal Mfg. Co., 16, Sayani Rd., Bombay 400025.

Jefferson Bolts (India) Pvt. Ltd., 1-8, New Okhla Indl. Complex, Phase II, Scheme II, New Delhi 110020.

L. B. Industries, 21/3, Ind. Area, Azamabad, Hyderabad 500020.

Lallubhai Amichand Pvt. Ltd., 48/50, Kansara Chawl, Bombay 400002.

Lion Nut Bolt Inds., C-1/1039, G.I.D.C. Ankleshwar 393002. (Gujarat).

Maheshwari Engg. Works, Todi Indl. Estate, Sun Mill Compound, Lower Parel, Bombay 400013.

Modern India Engg. Co., 146, M. G. Rd., Calcutta 700007.

Mini Fasteners, Nava Yard, Chhani Rd., Vadodara 390002.

Nemat Traders, 15, Vannier St., Madras 600001.

New Pensla Inds., S/131, Indl. Area, Jullundur 144004.

Nuts India, 15A, Ratan Villa, Laxminarayan Lane, Matunga, Bombay 400[illegible]

Oceanic Engg. Co., 16/3, Bull Temple Rd., Basavangudi, Bangalore 560004.

P. Beersain Jain Factory, Jakeria Rd., Malad West, Bombay 400064.

Parasramka Commercial Co. Pvt. Ltd., 12-B, M. Chatterji Lane, Calcutta 700007.

Parmar Button Clip Works, Post Box 115, Jamnagar 361001. (Gujarat).

Patna Engg. (Bolts) Works, Gosaintola, Patna 800013.

Perfect Nuts, 5/1 7th Cross, H. Siddaiah Rd., M. Krishnappa Layout, Bangalore 560027

Pioneer Indl. Corpn., 523, Cotton Exchange Bldg., Kalbadevi Rd., Bombay 400002.

Precision Industrial Components, 15, Elcheewalla Bldg., 11, Keshavji Naik Rd., Chinch Bunder, Bombay 400009.

R. K. Udyog, 352-B, Daulatpura, Ghaziabad 201001 (U.P.).

Rambal Pvt. Ltd., 129, Lattice Bridge Rd., Madras 600041.

Sanjay & Co., 40, Room No. 9, 1st Flr., Strand Rd., Calcutta 700001.

Sawalka Metal Products, 23A, N. Subhas Rd., Calcutta 700001.

Seelans Metal Corpn., 34, Mint St., Madras 600003.

Shankar Inds. Ltd., 20, Mangoe Lane, Calcutta 700001.
Shant Nut Inds., Maksoodan, Jullundur 144008. (Punjab).
Sheth Mfg. Works, S. V. Rd., Malad (West), Bombay 400064.
SHI Engineers, 46, SIDCO Indl. Estate, Coimbatore 641021.
Shree Krishna Pvt. Ltd., 20, Mangoe Lane, Calcutta 700001.
Sikands Ltd., 61, N.I.T., Faridabad 121001.
Sood & Co., S-11, Indl. Area, Unnao 209801. (U.P.).
Universal Fasteners Ltd., 17/3, Mathura Rd., Faridabad 121001
Universal Screw Factory, Chheharta, Amritsar 143001.
Vijaykumar Forgings, P.O. G.N. Mills, Coimbatore 641029.

BOX STRAPPINGS

A-1 Steel Corpn., 211/17, Nagdevi St., Bombay 400003.
Baroda Plastics, A/2, 617, G.I.D.C. Indl. Estate, Makarpura, Vadodara 390010.
Caristrap Ltd., Eros Bldg., 124, M. Karve Rd., Churchgate, Bombay 400020.
Cosmopoly Plastic Inds., 1, Jessan St., Wood Rd., Madras 600002.
Ebrahimjee Essabhai & Sons, 11, Old Hanuman Lane, Princess St., Bombay 400002.
Garware Synthetics Ltd., 135, Dr. A. Besant Rd., Bombay 400018.
Indo Steel Corpn., 148, Sarang St., Bombay 400003.
J. K. Steel Ind. Ltd., 7, Council House St., Calcutta 700001.
M. Paul & Bros., 89, N. Subhas Rd., Calcutta 700001.
Maharashtra Plastic Inds., Post Box 27393, Andheri West, Bombay 400058.
Mehta Engg. Co., 6, Shree Sadan, Daftary Rd., Malad East, Bombay 400064.
Mysore Vanijya Pvt. Ltd., 31, Mariswamappa Lane, Bangalore 560002.
Nav Bharat Vanijya Ltd., 7, Council House St., Calcutta 700001.
Nirvel Industries, 73, 'Kamleshwar', Santacruz West, Bombay 400054.
Novel Products, 316, Tulsiani Chambers, N. Point, Bombay 400021.
Nyloc Strappings Pvt. Ltd., Nirlon House, 254-B, A. Besant Rd., Bombay 400025.
Ochhavlal Chotalal & Co., 207-209, Nagdevi St., Bombay 400003.
P. Kesavan & Co., T. D. Rd., Ernakulam, Cochin 682011.
Poly Pack, 14, Chand Manzil, Old Bengalipura, Carnac Rd., Bombay 400003.
R. J. Steel & Co., 505, Steel Centre, Iron Market, Bombay 400009.
Rotaseal Packaging Pvt. Ltd., Vithal Udyognagar 388121 (Gujarat).
Shivani Plastic Co., F-16, DSIDC Indl. Complex, Rohtak Rd., New Delhi 110005.
Simplex Engg. Co., 64B, Ahmedabad St., Bombay 400009.
Vora Bros., 115, S. Devji St., Bombay 400003.
Western India Trading Co., 112, N. Dhuru St., Bombay 400003.

BRASS & COPPER SHEETS & ROLLS, ETC.

Argo Inds., 132, Thakurdwar Rd., Bombay 400002.
Dagger-Forst Tools Ltd., First Pokhran Rd., Thane 400606.
Devidayal Non-Ferrous Inds. Pvt. Ltd., Gupta Mills Estate, Reay Rd., Bombay 400010.
Elphinstone Metal Rolling Mills Pvt. Ltd., 154, Bapu Khote St., Bombay 400003.
J. B. Metal Inds. Pvt. Ltd., 7, Sarvodaya Nagar, Panjrapole Rd., Bombay 400004.
Krishna Engg. Industries, New Chhachhrauli Rd., Jagadhr 135003. (Haryana).
Multimetals Ltd., Heavy Industries Area, Kota 324003. (Rajasthan).
Premier Brass & Metal Works Pvt. Ltd., Seksaria Chambers, Medows St., Bombay 400023.
Rashtriya Metal Inds., Sir M. Vasanji Rd., J. B. Nagar, Bombay 400059.
Sanghvi & Sons, A. Shanti Niketan Bldg., Shop No. 6, C.S.T. Rd., Kalina, Santacruz East, Bombay 400098.
Sanjay Commercial Co., 40, Strand Rd., Calcutta 700001.
Shantilal Hiralal & Co., 57B, Khetwadi Main Rd., Bombay 400004.

BRASS & STEEL COMPONENTS

City Engg. Works, 443, D. Bhadkamkar Marg, Bombay 400004.
Excel Products, Post Box 3, Jamnagar 361001.
Industrial Brass Components Corpn., B-27, Udyog Mandal, Jamnagar 361001.
Navbharat Brassware Mfrs., 50, Kamathipura 10th Lane, Bombay 400008.
Rajkamal Trading Corpn., 89, Govt. Ind. Estate, Kandivli, Bombay 400067.
Shree Vishnu Inds., New Jail Rd., Jamnagar 361005.
Toshee Inds., 8/2, Roop Nagar, Delhi 110007.

BRICKS & TILES

A. N. Bhaskar Sons, 20/4 Km., Mathura Rd., Faridabad 121003
Acme Tiles Mfg. Co., 494, Duncan Rd., Bombay 400004.
Ajugia Tiles Co., Ghodbunder Rd., Malad West, Bombay 400064.
B. G. Shirke & Co., 72/76, Mundhva, Pune 411013.
Bharat Tiles & Marble Co. Pvt. Ltd., 32, Apollo St., Bombay 400023.
Deepak Tiles Ind. Pvt. Ltd., Bombay-Poona Rd., Tulsi Bag, Panvel 410206, Kolaba Dist.
Duncan Stone Co., 500, M. Azad Rd., Bombay 400004.
Himalayan Tiles & Marble Pvt. Ltd., 17-19, Dalal St., Bombay 400023.
Indiana Tiles & Marble Corpn., 16, Marzban Rd., Bombay 400001.
Jashvant C. Shah & Co., Bharati Nivas, Beasant Rd., Santacruz West, Bombay 400054.
Jay Tiles Ind., S. S. Patil Compd., M. Vasanji Rd., Bombay 400070.
Liberty Tiles & Marble Co., Kurla-Vihar Lake Rd., Bombay 400072.
Maha Gujarat Tiles & Marble Co., Panch Kuva, Opp. English Cinema, Ahmedabad 380001.
Modern Tiles Co. Pvt. Ltd., 92, Veer Savarkar Marg, Mahim, Bombay 400016.
N. M. Mehta & Co., 6, Bhagat Singh Rd., Bombay 400023.
National Tiles & Ind. Pvt. Ltd., 31, Hamam St., Above Dena Bank, Bombay 400001.
Nectiles, 31, Hamam St., Bombay 400001.
New India Mosaic & Marble Co. Pvt. Ltd., Ind. Estate, Lalbaug, Bombay 400012.
Nitco Tiles Pvt. Ltd., G-5, Court Chambers, New Marine Lines, Bombay 400020.
Raju Tiles & Marble Ind., Ambernath Rd., Ulhasnagar 421003, Thane Dist.
Raval & Co., 21, Bank St., Bombay 400023.
Simplex Art Floorings Pvt. Ltd., Lovji Castle, Dr. Rau Rd., Bombay 400012.

BRIGHT STEEL BARS ETC.

Delhi

H. R. Gupta Ind., 33, N. W. Ave., Punjabi Bagh, New Delhi 110026.
New Era Metal & Gen. Inds., 10, Babar Lane, New Delhi 110001.
Omega Bright Steel Pvt. Ltd., 607, Deepali, 92, Nehru Place, New Delhi 110019.

Gujarat

Bright Bar Mfg. Co., M. Gandhi Rd., Bharuch 392001.
Gujarat Bright Bar Inds. Pvt. Ltd., Odhav Rd., Odhav, Ahmedabad 382410.
Parry Engg. & Electronics Pvt. Ltd., Opp. Jai Temple, Gandhi Rd., Ahmedabad 380001.
Perfect Bright Steel Inds., Bhavnagar Rajkot Rd., Vartej 364060.
Precision Bright Steel Ind., 696, Reid Rd., Ahmedabad 380001.

Haryana

Anand Steel & Wires (Pvt.) Ltd., 13/6, Mathura Rd., Faridabad 121001.
Bhatia & Sons Ltd., 10, Indl. Est., Sector VI, Faridabad 121001.

Karnataka

Bipsi Blades & Turners Pvt. Ltd., 84, Ind. Suburb. Yeshwantpur, Bangalore 560022.

Madhya Pradesh

Indore Bright Bars, 286, M. G. Rd., Indore 452002.

Maharashtra

Acvee Iron & Steel Works Pvt. Ltd., Eldee Chambers, Broach St., Bombay 400009.

Agarwal Machine & Engg. Stores, 63/69, Nagdevi Cross Lane, Bombay 400003.

Ajmera Bros., 192-A, Panjrapole Main Rd., Bombay 400004.

Akhandanand Engg. & Trdg. Co., Datta Mandir Rd., Off Bhandup Village, Bombay 400078.

Anil Bright Steel Industries, 302, Adjoining Dockyard Rd. Stn., P.O. Box 6245, Bombay 400010.

B. P. Steel Ind. Pvt. Ltd., Mysore Chemical Comp., 39/44, Sion East, Bombay 400022.

Bright Bar Mfg. Co., 401, Cotton Exchange Bldg., Kalbadevi Rd., Bombay 400002.

Chase Bright Steel Ltd., Meher Chambers, Nicol Rd., Ballard Estate, Bombay 400038.

Chawla Steel Industries, Plot No. 6, Sewree Cross Rd., Sewri, Bombay 400015.

Devidayal Rolling & Refineries Pvt. Ltd., Gupta Mills Est., Reay Rd., Bombay 400010.

Dhiraj Iron & Steel Pvt. Ltd., 31, Sindhi Lane, N. Desai Rd., Bombay 400004.

Hercules Bright Steel Pvt. Ltd., 708/709, Raheja Chambers, 213, N. Point, Bombay 400021.

India Steel Inds., 134, N. Dhuru St., Bombay 400003.

India Tubes Mills & Metal Ind. Pvt. Ltd., Dhiraj Chambers, 9, Waudby Rd., Bombay 400001.

Indian Bright Steel Co. Ltd., Meher Chambers, Nicol Rd., Ballard Estate, Bombay 400038.

Industrial Bright Steel Co., 23, Alankar Cinema Bldg., Sardar V. P. Rd., Bombay 400004.

Industrial Engg. Co., 5, Bombay Samachar Mrg., Bombay 400023.

Jayco Steel Corpn., 5-A, 2nd Parsiwada Lane, Behind Alankar Cinema, Bombay 400004.

Magnificent Engg. Works, C/o Textelo Engg. Works, 52A, Islampura, Nanubhai Desai Rd., Bombay 400004.

Mehta Engg. Works, B-40, Wagle Indl. Est., Thane 400604.

Nagpur Steel & Alloys Pvt. Ltd., F-11, MIDC Ind. Estate, Hingna Rd., Nagpur 440016.

Pratap Bright Steels Pvt. Ltd., 11, Advent, 12-A, Gen. J. Bhosle Mrg., Bombay 400021.

R. Amrutlal & Co., 116, N. Dhuru St., Bombay 400003.

R. C. Khandelwal & Co., 38, Indl. Est., Khopoli 410203.Kolaba Dist.

Shah Patel & Co., 111, Nagdevi St., Bombay 400003.

Shree Nityanand Steel Rolling Mills, Darukhana 3rd Lane, Bombay 400010.

Shree Shankar Inds., 109-A, Mittal Chambers, Nariman Point, Bombay 400021.

Special Steels Ltd., Dattapada Rd., Bombay 400066.

Textelo Engg. Works, 52A, Islampura St., Bombay 400004.

Unico Metal Industries, 61, 1st Carpenter St., Nanubhai Desai Rd., Bombay 400004.

Punjab

Hindustan Steel Ind., Rakson House, 43-R, Ind. Area B. Ludhiana 141001.

Tamil Nadu

Alan Bright Steel Pvt. Ltd., 48, SIDCO Indl. Estate, Ambattur, Madras 600098.

Durga Bright Bar Mfg. Co., 310, Seshachala Gramani Garden St., Sattangadu, Madras 600019.

Indian Bright Steel Co. Ltd., 111/112, Mannady St., Madras 600001.

West Bengal

Allahabad Merchandise Co. Pvt. Ltd., 310, Jessore Rd., Calcutta 700055.

Allied Steel Products, 11/1, Canal East Rd., Calcutta 700004.

Bagri Steel Ind. (Pvt.) Ltd., 138, B.R.B.B. Rd., Calcutta 700001.

Bells General Inds., 26/1, Strand Rd., Calcutta 700001.

Bhartia Commercial Co. Ltd., B-1, Gillanders House, 8, N. Subhas Rd., Calcutta 700001.

Calcutta Steel Co. Ltd., 4, Old Court House St., Calcutta 700001.

Damehra Steels & Forgings Pvt. Ltd., 15/64, G. T. Rd., Liluah 711204.

Guest Keen Williams Ltd., 97, Andul Rd., Howrah 711001.

Prakash Steel Products, 234, G. Trunk Rd. (North), Howrah 711007.

Steel Rolling Mills of Bengal Ltd., 23, Strand Rd., Calcutta 700001.

BRUSHES

All India Brush Works, 136, R. R. Roy St., Calcutta 700006.

Allied Steel Products, 11/1, Canal East Rd., Calcutta 700014.

Army Brush Factory, 457, Sadar Bazar, Delhi 110006.

Aryan Brush Co. Ltd., Lentin Chambers, Dalal St., Bombay 400023.

Ashish Mfg. Co., Wadala, Bombay 400031.

Baroda Brushware Co., Behind Rly. Stn., Vadodara 390005.

Bombay Brush Co. Pvt. Ltd., 439, Sane Guruji Marg, Bombay 400034.

Climax Brush Works, 123, Amherst St., Calcutta 700009.

Datson Raviraj & Co. Pvt. Ltd., 43, Tamarind Lane, Bombay 400023.

Dey Bros., 23, Biplabi R. B. Bose Rd., Calcutta 700001.

E. A. Currim Pvt. Ltd., 97, Apollo St., Bombay 400023.

Indian Brushware, 1, British Indian St., Calcutta 700001.

Indo Industrial Corpn., 20, Strand Rd., Calcutta 700001.

Industrial Brushware Inds., 238/240, Nagdevi St., Bombay 400003.

Nannooh Bros., 165, Angappa Naicken St., Madras 600001.

New India Brush Inds., 1/31, Ravindranath Layout, New Siddhapudur, Coimbatore 641018.

New India Brush Mfg. Co., 337, A. Rehman St., Bombay 400003.

BUCKETS

(See Barrels, Buckets, Drums, Steel Containers etc. in this list).

BUILDERS HARDWARE

Amerbhoy Dossajee, 148-50, Lohar Chawl, Bombay 400002.

Anupam Metal Inds., G.B.-7, Virwani Ind. Estate, W. Express Highway, Goregaon (E), Bombay 400063.

Ashoka Commercial Corpn., 6, Ratan Sarkar Garden St., Calcutta 700070.

Eddy & Co., 148, Lohar Chawl, Bombay 400002.

Metal Art, 10, Bapu Khote St., Bombay 400003.

Nasik Industrial Engineering Corpn., Ram Nivas, Panchavati, Nasik 422003.

Saifee Tube & Hardware Mart, 85B, Mohamedali Rd., Bombay 400003.

Win-Arts Industries, 89, Bhajipala St., Bombay 400003.

(Also see "Construction Materials" in this list).

BUILDING MATERIALS

(See "Construction Materials" in this list).

BURNERS—OIL/GAS

Bharat Standard Industries, 6-7, Sharma Ind. Estate, Walbhat Road, Goregaon East, Bombay 400063.

Kaveri Structurals, Sire Mansion, 123, Mount Rd., Madras 600006.

Vulcan Engrs. Pvt. Ltd., Mahalaxmi Chambers, B. Desai Rd., Bombay 400026.

Wesman Thermal Engg. Processes Pvt. Ltd., 1/2, Allenby Rd., Calcutta 700020.

Westerwork Engineers Ltd., 5-D, Vulcan Insce. Bldg., Veer Nariman Rd., Bombay 400020.

BUS-TRUCK & COACH BODY BUILDERS

Andhra Pradesh

Hyderabad Allwyn Ltd., Allwyn Bhavan, Erragadda, Hyderabad 500018.

Shri Ramdas Motor Transport Pvt. Ltd., Subash Rd., Kakinada 533001.

Bihar

Tata Engg. & Loco. Co. Ltd., Jamshedpur 831001.

Delhi

Anand Automobiles, P.O. Usuf Sarai, New Delhi 110016.

Karnataka

Air Flow Transport (India) Pvt. Ltd., 26/28, St. Marks Rd., Bangalore 560001.

Azad Coach Builders Pvt. Ltd., 8th Mile, Mysore Road, Bangalore 560059.

Canara Workshops Ltd., Kodialbail, Mangalore 575001.

S. M. Kannappa Automobiles Pvt. Ltd., 2, New Mental Hospital Rd., Near Lalbaug, Bangalore 560027.

Maharashtra

Aryan Motors, Arya Bhawan, Plot 34, MIDC, Andheri East, Central Rd., Bombay 400093.

India Body Builders, 62, B. Shanker Cross Rd., Bombay 400054.

Jafferbhai & Co., Pheroz Mahal, 1, Rahimtulla Rd., Bombay 400003.

Jay Coach Enterprises Pvt. Ltd., 84-A, W. Express Highway, Goregaon East, Bombay 400063.

Jayanand Khira & Co. Pvt. Ltd., S. Vivekanand Rd., Bombay 400054.

Mahindra & Mahindra Ltd., Gateway Bldg., Apollo Bunder, Bombay 400039.

Premier Automobiles Ltd., L. B. Shastri Marg, Bombay 400070.

Remi Auto Pvt. Ltd., B-41, Rd. No. 28, Wagle Indl. Estate, Thane 400604.

Ruby Coach Builders Pvt. Ltd., 75, Dr. A. Besant Rd., Bombay 400018.

Sah & Sanghi, Giri Kunj, 11C, N. S. Patkar Marg, Bombay 400007.

Starline Automobiles, LBS Marg, Bhandup, Bombay 400078.

Rajasthan

Kamal & Co., Mirza Ismail Rd., Jaipur 302001.

Tamil Nadu

Anamallais Engg., 4-A, Goods Shed Rd., Pollachi 642001.

GRP Body Builders, Site 1, Kaleeswarar Nagar, Kattoor, Coimbatore 641009,

L. G. Balkrishnan Bros. Pvt. Ltd., P.O. Ganapathy, Coimbatore 641006.

S. N. R. Body Builders Pvt. Ltd., 19, Abdul Razak St., Madras 600015.

Simpson & Co. Ltd., Truck Dn., 226, Cathedral Rd., Madras 600086.

Sundaram Ind. Pvt. Ltd., Ind. Estate, Madurai 625001.

Uttar Pradesh

Harish Inds., Baghpat Rd., Meerut 250062.

West Bengal

Chopra Motors, 139, Regent Park, Calcutta 700040.

French Motor Car Co. Ltd., 234/3, L. Circular Rd., Calcutta 700020.

CABLE REELING DRUMS

Electro Zavod (India) Pvt. Ltd., 19/1B, Keyatala Rd., Calcutta 700029.

CALCULATORS—POCKET SIZE

Actron India, Khandelwal Bhavan, 166, Dr. D. N. Rd., Bombay 400001.

Bush India Ltd., Calculator Dn., Sukh Sagar, Bombay 400007.

Calcom Electronics, B-23/1, Wazirpur Indl. Area, Delhi 110032.

Continental Commercial Co. Ltd., 8/1, B.B.D. Bag East, Calcutta 700001.

Digital Equipments Co. Ltd., J-5, Hubsiguda, Tarnaka, Hyderabad 500007.

Electronix Systems, 232A, Grand Paradi Apartments, Cumballa Hill, Bombay 400026.

Intronix, 40, Community Centre, Narain Indl. Area, Phase I, New Delhi 110028.

L. P. Electronics Pvt. Ltd., A-251, Wagle Ind. Estate, Thane 400604.

Microcomp. Ltd., 808, Siddharth, Nehru Place, New Delhi 110019.

Vishal Electronics Pvt. Ltd., 46/47, Jerbai Wadia Rd., Parel, Bombay 400012.

CALCULATORS—TABLE SIZE

(Also see Office Equipment).

Advani-Oerlikon Ltd., Ador House, 6, K. Dubash Mrg., Bombay 400023.

Aristo Business Systems, 204, Neelam Bldg., Worli Naka, Bombay 400018.

Blue Star Ltd., Band Box House, Prabhadevi, Bombay 400025.

Business Machines Pvt. Ltd., Asnani Mkt., 10A, Rajendra Place, New Delhi 110008.

DCM Data Products, 18, Barakhambha Rd., New Delhi 110001.

DCM Data Products, 313, Thambu Chetty St., Madras 600001.

DCM Data Products, 47, St. Marks Rd., Bangalore 560001.

Devidayal Electronics & Wires Ltd., Post Box No. 5, Bangalore 560049.

Hi-Tek Electronics Pvt. Ltd., 208, Parvathi Indl. Estate, New Sun Mill Compd., Lower Parel, Bombay 400013.

India Electronics Corpn., 27, Kotkar Ind. Estate, Goregaon East, Bombay 400063.

Industrial Electronics, 8, Parvati Ind. Estate, Sun Mill Compd., L. Parel, Bombay 400013.

International Marketing Corpn. P. Ltd., Harilela House, Mint Rd., Bombay 400001.

Kerala State Electronics Devpt. Corpn. Ltd., Nirmal, N. Point, Bombay 400021.

Mecotronics Pvt. Ltd., 1, 11A/1, Mount Rd., Madras 600002.

Methodex System Pvt. Ltd., 33-A, New Marine Lines, Bombay 400020.

Modern Trading Co. (Bombay), Opera House, Bombay 400004.

Multiplex Electronics, 69/71, Ghogha St., Bombay 400001.

National Radio & Electronics Co. Ltd., 5, Montieth Rd., Egmore, Madras 600008.

Newage Business Systems Pvt. Ltd., 305-A, Skylark, 60, Nehru Place, New Delhi 110019.

Oblum Electrical Ind. Pvt. Ltd., 6-3-562/A, Erramanzil, Somajiguda, Hyderabad 500004.

Omron India, 74, Regent Chambers, Nariman Point, Bombay 400020.

Remington Rand of India Ltd., Mehta Mahal, Mathew Rd., Bombay 400004.

Sab Electronics Pvt. Ltd., 302-A, Poonam Chambers, Dr. A. B. Rd., Worli, Bombay 400018.

Stereovision, Heera Mkt., 3/186, Mount Rd., Madras 600002.

Superior Electronic Systems Pvt. Ltd., 129, Champaklal Indl. Est., Bombay 400022.

UMS Radio Factory Pvt. Ltd., Avanashi Rd., Coimbatore 641018.

Uptron India Ltd., 10, Ashok Mrg., Lucknow 226001.

Webel Business Machines Ltd., Webel Indl. Complex, P-1, Taratolla Rd., Calcutta 700088.

Westen Electronics (Pvt.) Ltd., 244, Okhla Indl. Est., New Delhi 110020.

CAMPHOR

Camphor & Allied Products Pvt. Ltd., Jehangir Bldg., 133, M. Gandhi Rd., Bombay 400023.

CAPACITORS—ELECTRICAL & ALUMINIUM, ELECTROLYTIC, PLASTIC FILM

Andhra Pradesh

Bharat Capacitors Ltd., A-1, Electronic Complex, Kosaiguda, Hyderabad 500762.

Meduri Capacitors Pvt. Ltd., S-11, Phase 2, Technocrafts Indl. Estate, Balanagar, Hyderabad 500037.

Oblum Electrical Industries Pvt. Ltd., 6-3-562/A, Erramanzil, Somajiguda, Hyderabad 500004

Tant Cap Electronics Ltd., 6-3-654, Nava Bharat House, Somajiguda, Hyderabad 500004.

Bihar

Anil Centronics Ltd., S. P. Verma Rd., Patna 800001.

Delhi

Associated Electrical Agencies, 7/9, Ansari Rd., Daryaganj, New Delhi 110002.

Control Electronics Pvt. Ltd., A-52, Okhla Indl. Area, Phase II, New Delhi 110020.

Crescent Capacitors, J-12-12, Rajouri Garden, New Delhi 110027

Standard Capacitors, B-70/43, DSIDC Indl. Complex, Lawrence Rd., Delhi 110035.

Usha Electronics (India) P. Ltd., 2, Anand Lok, New Delhi 110045.

Goa

Goa Capacitors Pvt. Ltd., M-1, Block C, Kundaikar Nagar, Altinho Rd., Panaji 403001.

Gujarat

Baroda Electronics Ind. Pvt. Ltd., 78, Chhani Rd., Vadodara 390002.

Yesha Electricals Pvt. Ltd., C-2/18, Ind. Estate, Gorwa Rd., Vadodara 390016.

Karnataka

Advance Components & Instruments Pvt. Ltd., 278, Gokulam III Stage, Mysore 570002.

Bharat Heavy Electricals Ltd., Control Equipment Dn., Mysore Rd., Bangalore 560026.

Electronics & Capacitors, B-56, Indl. Area, Peenya, Bangalore 562140.

Nippon Electronics (India) Ltd., Bull Temple Rd., Bangalore 560019.

Radio & Electricals Mfg. Co. Ltd., Mysore Rd., Bangalore 560026.

Sree Thirumalai Electronics Pvt. Ltd., 18/2, Andree Rd., Bangalore 560027.

Kerala

Elmech Capacitors Ltd., Durbar Hall Rd., Cochin 682016.

Keltron, Mktg. Divn., Keltron House, Vellayambalam, Trivandrum 695001.

Madhya Pradesh

Bhandari Capacitors Pvt. Ltd., Nirmal No. 1, Snehalataganj, Indore 452003.

Maharashtra

Ajanta Capacitors Pvt. Ltd., E-41, MIDC Ind. Area, Chikalthana, Aurangabad 431210.

Asia Electric Co., Kataria Mansion, 132A, Dr. A. B. Rd., Worli Naka, Bombay 400018.

Capacitor Mfg. Co., A/7, Functional Electronic. MIDC, Bhosari, Pune 411026.

Central Capacitors Pvt. Ltd., 5, Temple Rd., Nagpur 440001.

Chowgule & Co. (Hind) Ltd., India House, Opp. G.P.O., Bombay 400001.

CTR Mfg. Inds. Ltd., Nagar Rd., Pune 411014.

Desai Electronics Pvt. Ltd., 501, Ghorpade Peth, Swar Gate, Pune 411002.

Emco-Esta Capacitors, 94, Medows St., Bombay 400023.

Gannon Electrolytics Ltd., Chartered Bank Bldg., M. Gandhi Rd., Bombay 400023.

Gorakhram Haribux, 4, Appeejay House, Ground Flr., 130, Bombay Samachar Mrg., Bombay 400001.

Hind Condensor Pvt. Ltd., Plot No. 209, Pune-Bombay Road, Pimpri, Pune 411018.

Jay Trading Corpn., G.P.O. Box 10061, Bombay 400001.

Jnana Prabhodhinis Vyapar Udyog Vibhag, 510, Sâdashiv Peth, Pune 411030.

Khatau Junker Ltd., Dattapada Rd., Borivli (E), Bombay 400066.

Madhav Capacitors Pvt. Ltd., Bharat Coal Compd., Bail Bazar, Kurla, Bombay 400070.

Malde Capacitors Mfg. Co., W-36, MIDC Ph. II, Manpada Rd., Dombivli 421204. Thane Dist.

Manohar Bros. (Cap.) Pvt. Ltd., 4, Commerce House, 140, N. Master Rd., Bombay 400023.

Mulchandani Electrical & Radio Inds. Ltd., Wagle Indl. Area, Thane 400604.

Sangeeta Electronics, 366, Lamington Rd., Bombay 400007.

Shakti Capacitors, Indl. Estate, Sangli 416416.

Shreem Capacitors Pvt. Ltd., Ind. Estate, Jaysingpur 416101.

Tamil Nadu

Electronics Corpn. of Tamil Nadu Ltd., LLA Bldg., 735, Anna Salai, Madras 600002.

India Capacitors Ltd., 22, Errabalu Chetty St., Madras 600001.

Manohar Bros., 4, Errabalu Chetty St., Madras 600001.

Seshasayee Bros. Pvt. Ltd., 8, Rutland Gate 4th St., Madras 600006.

Southern Capacitors, 393, Mint St., Madras 600001.

Srijee & Co., 24, Erulappan St., Madras 600001.

Uttar Pradesh

General Electric Co. of India Ltd., Transformer & Capacitor Divn., Naini Works, Naini 211008. (Allahabad Dist.).

Upton Capacitors Ltd., Talab Tikait Ram, Aishbagh, Lucknow 226004.

West Bengal

Chowdhury Ind. Corpn. Pvt. Ltd., 6, Middleton St., Calcutta 700016.

Elmech Capacitors Ltd., 30, Chittaranjan Ave., Calcutta 700012.

India Capacitors Ltd., 49/1, Gariahat Rd., Calcutta 700019.

Webel Sen Capacitors Ltd., 225E, Acharya J. C. Bose Rd., Calcutta 700029.

CAPSULES—GELATINE

Asoj Soft Caps Pvt. Ltd., Krishnabai Bldg., Kashinath Dhuru Rd., Agar Bazar, Dadar, Bombay 400028.

Associated Capsules Pvt. Ltd., 131, Kandivli Ind. Estate, Bombay 400067.

Capsules Corp. (India), JI/11, Krishna Nagar, New Delhi 110051.

Capsulation Services Pvt. Ltd., Sion-Trombay Rd., Chembur, Bombay 400071.

Gelikeps Pvt. Ltd., P.O. Atladara, Vadodara 390012.

Indian Pharmacaps & Chemicals Pvt. Ltd., 11-B, Yusuf Bldg., M. Gandhi Rd., Bombay 400001.

Pharmaceutical Capsules Laboratory, Brahman Sabha Bldg., Underia Cross Rd., Bombay 400064.

Seamless Capsules Pvt. Ltd., 81, Andheri-Kurla Rd., Bombay 400059.

Sunil Synchem Ltd., Sheetla House, 1st Flr., 73-74, Nehru Place, New Delhi 110019.

CARBON FILM RESISTORS

Kothari Electronics & Inds. Ltd., 114, Nungambakkam High Rd., Madras 600034.

Thermax Pvt. Ltd., Electronics Divn., T-134, Bhosari Indl. Area, Pune 411026.

CARBON PRODUCTS—CARBON BLOCKS & BRUSHES

A. K. Motiwala, 145, Lohar Chawl, Bombay 400002.

Asia Carbons Ltd., 5, Raman St., Madras 600017.

Asssam Carbon Products, Gauhati 781001.

Bhatt & Bros., 14/16, Chewool Wadi, Dr. M. B. Welkar St., Bombay 400002.

Carbon & Chemicals India Ltd., 39/137-A, Krishnaswamy Cross Rd., Cochin 682011.

Carbon Corpn. Ltd., 88, MIDC, Satpur, Nasik 422007.

Carbon Enterprises, Gupta Deshpande Indl. Estate, 1st Pokhran Rd., Thane 400606.

Carbon Marketing Co. (India), Tank Rd., Bhandup, Bombay 400078.

Crupp Carbon Papers Mfg. Co., Pvt. Ltd., C-1/222-224, Naroda Indl. Estate, Naroda, Ahmedabad 382330.
Dikson & Co., 8, Bharat House, Apollo St., Bombay 400023.
El-Mech Works, Udyog Bhavan, 97AB No. 4, Off Prabhadevi Rd., Bombay 400025.
Electro Carbon Mfg. Co., Ind. Estate, Jaisingpur 416101. Kolhapur Dist.
Electro Carbonium Ltd., 78, Victoria Rd., Bangalore 560007.
Electro-Carbons (India) Pvt. Ltd., Barauni Indl. Area, Tilrath, Barauni 85112. (Bihar).
Gujarat Carbon Ltd., Harikripa, Alkapuri, Vadodara 390005.
India Carbon Ltd., 6, Old P.O. St., Calcutta 700001.
Indo Matsushita Carbon Co. Ltd., Lakshmi Bhavan, 1G (1st Flr.), 609, Mount Rd., Madras 600006.
Indogem Carbon Brush Mfg. , 103, Maulana Azad Rd., 30, Raja Bahadur Bldg., Bombay 400008.
Jayantilal & Co., 20, Armenian St., Calcutta 700001.
Joseph Leslie & Co., Apeejay House, 130, Apollo St., Bombay 400023.
Mano-Chem Indsustries, 402, Ashirwad Apartments, Plot No. 223, Mulund West, Bombay 400080.
Moba Carbon Pvt. Ltd., 48, Wodehouse Rd., Bombay 400005.
Nagina Carbon Brush Mfg. Co., (Regd.), 65, Carmellous Bldg., Pathakwadi, Bombay 400002.
National Carbon Engg. Co., 10-B, Sheriyar Baug, 77, Ramchandra Bhatt Mrg., Bombay 400009.
Oriental Carbon Products Co., 6, R. Ghosh Rd., Calcutta 700002.
Philips Carbon Black Ltd., 31, N. Subhas Rd., Calcutta 700001.
Prakash Engg. Works, Jagruti, Indl. Estate, Mugal Lane, Mahim, Bombay 400016.
Precision Fabricators & Mechanical Engrs., 3, Bora Masjid Galli, Zaveri Bazar, Bombay 400002.
Schutz Carbon Electrodes Pvt. Ltd., 82, Stephen House, 5th Flr., 4, Dalhousie Square East, Calcutta 700001.
Sintered Graphite Pvt. Ltd., 15/21, Civil Lines, Kanpur 208001.
Webel Carbon & Metal Film Resistors Ltd., 225E, Acharya J. C. Bose Rd., Calcutta 700020.

CARBONS—CINEMA ARC

Best & Crompton Engg. Co. Ltd., 13/15, North Beach Rd., Madras 600001.
Britelite Carbons Ltd., Pratappura, Halol 389350. Panchmahals Dist. (Gujarat).
R. J. Wood & Co. Pvt. Ltd., State Bank Bldg., Chandni Chowk, Delhi 110006.
Sigma Coatings Ltd., B-2, Indl. Estate, Katunga 790031. Rourkela (Orissa State).
Union Carbide (India) Ltd., 1, Middleton St., Calcutta 700016.

CARDBOARD BOXES

Bangalore

Everest Container Corpn., Ind. Suburbs, Yeshwantpur, Bangalore 560022.

Bombay

Babson Paper Box Factory, 17, Dhobi St., Bombay 400003.
Everest Packaging Corpn., Mahakali Caves Rd., Andheri East, Bombay 400069.
Hemkiran Packaging Pvt. Ltd., Mathuradas Mill Compd., N. M. Joshi Mrg., Bombay 400013.
Krishna Box Factory, Plot No. 37(11), MIDC Central Rd., Off Mahakali Rd., Andheri East, Bombay 400093.
National Packaging Inds., 341, Birla Bldg., Tardeo, Bombay 400034.

Calcutta

Ads & Prints (1963), A8, Bon Hooghly Indl. Estate, Calcutta 700035.
Antool, S. & Co. Pvt. Ltd., 91, Acharya P. Chandra Rd., Calcutta 700009.
Arun Corrugating & Packaging Ind., 36, Brabourne Rd., Calcutta 700001.
Associated Packaging Ind., 37, Canning St., Calcutta 700001.
Board & Paper Converters, 152/6, Salkia School Rd., Howrah 711101.
British Packaging Ind., 3, Portuguese Church St., Calcutta 700001.
Calcutta Paper Ind., 121, Chittaranjan Ave., Calcutta 700007.
Cardboard Box Mfg. Co., 41, Chowringhee Rd., Calcutta 700016.
Cardboard Materials & Printing Co. Pvt. Ltd., 7, Convent Rd., Calcutta 700014.
Cardboard & Paper Products Co., 44, Lockgate Rd., Calcutta 700002.
Central Card Board Box Mfg. Co., 25, Dr. K. Bose St., Calcutta 700009.
Central Trdg. Co., 25, Waterloo St., Calcutta 700001.
Great Bengal Card Board Box Mfg. Co., 46, J. Mitra St., Calcutta 700005.
Impex Corpn., 23/J, R. M. Dutta Garden Lane, Calcutta 700010.
Kajaria Chemipaper Pvt. Ltd., 28, Amratolla St., Calcutta 700001.
Krishna Cardboard Box Mfg. Co., 58, S. Sarkar Rd., Calcutta 700003.
Leonard Card-Board Box Factory Pvt. Ltd., 1/1, Galiff St., Calcutta 700003.
Packaging & Printing Ind., 1, British Indian St., Calcutta 700001.
Profulla Box Mfg. Co. Pvt. Ltd., 80/2, Baitakhana Rd., Calcutta 700009.
Standard Box Co., 6, A. Banerji Lane, Calcutta 700020.
Swastik Box Mfg. Co., 38G, Sitalatala Lane, Narkeldanga, Calcutta 700011.
Technocrafts (India), 56, N. Subhas Rd., Calcutta 700001.
Union Packaging Ind., 1, Transport Depot Rd., Calcutta 700027.
Universal Cardboard Box Factory, 54, Ezra St., Calcutta 700001.

Delhi

Everest Corrugating Ind., 63, Jhandewalan Extn., New Delhi 110055.

Madras

Alex Card Board Pvt. Ltd., 3A/2, Eldams Rd., Madras 600002.

CARPETS

Delhi

Bharat Carpets Pvt. Ltd., 28-B, Connaught Place, New Delhi 110001.
Carpeto Antique, M-45, Greater Kailash-1, New Delhi 110048.
Cosmique International, 191, Faiz Mrg., New Delhi 110005.
East India Carpet Co. Pvt. Ltd., Connaught Place, New Delhi 110001.
Modi Carpets Ltd., Harsha Bhawan, E Block, Conn. Circus, New Delhi 110001.
Tufted Carpets & Woollen Inds. Ltd., C-92, N.D.S.E. Part II, New Delhi 110049.

Jammu & Kashmir

East India Carpet Co. Pvt. Ltd., Srinagar 190001.
Oriental Carpet Factory, Shiring Bagh, Srinagar 190001.
Sheikh Co., P.O. Box 83, Srinagar 190001.

Karnataka

Jansons Carpets & Furnishing, 75/76, Commercial St., Bangalore 560001.

Madhya Pradesh

East India Carpet Co. Pvt. Ltd., Maharani Laxmibai Rd., Gwalior 474001.

Maharashtra

Asian Carpets, 66/67, Tardeo Airconditioned Mkt., Bombay 400034.
Beautex Carpets, Shop No. 65, Tardeo Airconditioned Mkt., Tardeo, Bombay 400034.
Blue Star Carpet Mfrs., 15-16, Raheja Centre, 214, Nariman Point, Bombay 400021.
Colaba Carpet Inds., 81, Wodehouse Rd., Colaba, Bombay 400005.

Hiranand Valiram, 34, Walchand Hirachand Mrg., Bombay 400001.
Indiana Carpet Inds., 215, Arun Chambers, Tardeo Rd., Bombay 400034.
KCM Kohinoor Carpet Mfrs., 83A, Bazargate St., Bombay 400001.
Kim Carpet Ind.. Harilela House, Opp. G.P.O., Bombay 400001.
United Felts & Carpets, Udyog Bhavan, W. H. Mrg., Bombay 400038.
W. H. Deeth Pvt. Ltd., 33/34, Dr. A. Besant Rd., Bombay 400018.

Punjab

Model Woollen & Silk Mills, Grover Estate, Verka, Amritsar 143501.
Oriental Carpet Manufrs. (India) Pvt. Ltd., Amritsar 143001.

Rajasthan

Modern Woollen Carpets Pvt. Ltd., Sevarampura, Tonk 304001 (Rajasthan)

Tamil Nadu

Chellarams (Madras), 86, Wallajah Rd., Madras 600002.
Jansons Carpets & Furnishings, East Coast Centre, 553B, Anna Salai, Madras 600018.

Uttar Pradesh

Bhadohi Textile Ind. Pvt. Ltd., Bhadohi 221401.
Bholanath Carpets Pvt. Ltd., P.O. Khamania 221306, Varanasi Dist.
Carpet Co-op. Federation Ltd., Station Rd., Bhadohi 221401.
General Fibre Dealers Pvt. Ltd., Bhadohi 221401.
Hill & Co. Pvt. Ltd., E., Railway Station, Mirzapur 231101.
Jaypee Carpets, Premghan Mrg., Mirzapur 231102.
Kailas Carpet Co., Dholpur House, Agra 282001.
Mahabir Prasad & Co., Main Rd., Bhadohi 221401.
Modi Carpets Ltd., Civil Lines Modinagar 201204.
Obeetee Pvt. Ltd., Bhariaghat, Mirzapur 231001.
Quality Marked Woollen Carpet Manufacturers Co-op. Assn. Ltd., Gopaldas Rd.. Mirzapur 231001.
Samad Carpets Pvt. Ltd., Samad Buildings, Bhadohi 221401.
Shaheen Carpet Inds., Laldiggi, Mirzapur 231002.
Shilpi, Laldiggi, Mirzapur 231002.

West Bengal

Birla Jute Mfg. Co. Ltd., 15, India Exchange Place, Calcutta 700001.
Nylon Carpet Mfg. Co. (India) Pvt. Ltd., 5, Synagogue St., 7th Flr., Calcutta 700001.
Shroff's Carpets, 12, J. Nehru Rd., Calcutta 700013.

CARS & TRUCKS

Ashok Leyland Ltd., Ennore, Madras 600057. (*Leyland Comet* trucks, *Beaver Hipo & Jumbo* trucks.).
DCM Toyota Ltd., Kanchenjunga, 1st Flr., 18, Barakhamba Rd., New Delhi 110001.
Hindustan Motors Ltd., Uttarpara 712258. (*Ambassador* cars, *Hindustan* trucks.)
Mahindra & Mahindra Ltd., Automobile Dn., Worli Rd., Bombay 400018.
Maruti Udyog Ltd., Hansalaya, 6th Flr., 15, Barakhamba Rd., New Delhi 110001.
Premier Automobiles Ltd., 92/93, Maker Towers F, Cuffe Parade, Bombay 400005. (*Premier President* and *Padmini* cars; *Premier Pioneer & Premier Roadmaster* trucks).
Sipani Automobiles Ltd., 25/26, Indl. Suburb, Tumkur Rd., Bangalore 560022.
Standard Motor Products of India Ltd., 29, Mount Rd., Madras 600002. (*Standard Gazel* cars & *Standard* trucks).
Starline Autobuilders, Arvind Kunj, Tardeo Main Rd., Bombay 400034.
Tata Engg. & Locomotive Co. Ltd., Bombay House, H. Mody St., Bombay 400023. (*Tata* trucks).
Venus Auto Inds. Pvt. Ltd., 28, 4th Main Rd., Tumkur Rd., Bangalore 560022.

CASEIN & CASEINATES

Anand Dairy Products, Opp. Polson Dairy, Polson Rd., Anand 388001. (Gujarat).
D. Doshi & Co., 111, Wadala Udyog Bhavan, Bombay 400031.
Doshi Brothers, Mahavir Rd., Anand 388001. (Gujarat).
R. Deepak & Co., Navjivan Socy., Bldg. No. 3/8, Lamington Rd., Bombay 400008.

CASSETTE TAPE RECORDERS

Anand Audio Mfg., Co., P.O. Deshbandhunagar, Bagulati, Calcutta 700059.
Asian Radios, Bhagirath Palace, Chandni Chowk, Delhi 110006.
Beltek Electronics Pvt. Ltd., A-30, Narain Indl. Area, Phase I, New Delhi 110028.
Chandra Electronics, Near Opera House P.O., Bombay 400004.
Cisons Electronics, 21/1, Narasingapuram St., Mount Rd., Madras 600002.
Electronic Inds. of India, 4684, Main Ansari Rd., 21, Daryaganj, New Delhi 110002.
General Electronics of Haryana Pvt. Ltd., 17/6, Main Mathura Rd., Faridabad 121003.
Genesis India, 505-506, Red Rose, 50, Nehru Place, New Delhi 110019.
M. I. Electronics, 138, Mount Rd., Madras 600006.
Masterphone Pvt. Ltd., 1423, Chandni Chowk, Delhi 110006.
Orson Video Pvt. Ltd., Arcadia, 2nd Flr., N Point, Bombay 400021.
Paras Electronics Pvt. Ltd., 5, Comm. Centre, Naraina Ind. Area, New Delhi 110028.
Priti Electronics Pvt. Ltd., F21, Jangpura Extn., New Delhi 110014.
Radio & Communication Traders, 111-H/10, Lajpatnagar, New Delhi 110024.
Resa Co., B-8, Ind. Estate, Guindy, Madras 600032.
Televista Electronics Pvt. Ltd., 239, Okhla Ind. Estate, New Delhi 110020.
TNK Electronics, 21, Sooterkin St., Calcutta 700072.
UMS Radio Factory Pvt. Ltd., Coimbatore 641018.
Vinay Electronics Corpn., 336, Lajpat Rai Mkt., Delhi 110006.
Wings Electronics, 309, Lajpat Rai Mkt., Delhi 110006.

CASSETTE TAPES

A V M Projection Service, 57, Dr. Radhakrishna Rd., Mylapore, Madras 600004.
Bel Refrigeration Co. (Electronics Dn.), 4/C, Nungambakkam High Rd., Madras 600034.
Chandrika Electronics Ltd., 139, Sardar Patel Rd., Secunderabad 500003.
Cisons Electronics, 21/71, Narasingapuram St., Mount Rd., Madras 600002.
Citizen Inds., Post Box 168688, Bombay 400050
Coney Electronics Pvt. Ltd., 1/40-3, Mount Poonamalle St., St. Thomas Mount, Madras 600016.
Geetha Electronics Pvt. Ltd., Hyderguda, Hyderabad 500001.
Kamal Inds., 2-F, M. Gandhi Rd., Bangalore 560001.
Kapco International, 603, Deepali, 92, Nehru Place, New Delhi 110019.
Kunstcom Electronics (India) Pvt. Ltd., 14, Ashok Vihar, Market II, Phase II, Delhi 110052.
Master Recording Co., 33, 1st Main Rd., Raja Annamalaipuram, Madras 600028.
Movac Electronics Pvt. Ltd., 505, Bharat Indl. Estate, T. J. Rd., Sewri, Bombay 400015.
Music International, 19/21, Steelmade Indl. Estate, M. Maroshi Rd., Andheri East, Bombay 400059.
Nahata Co., 17, Narasingapuram St., Mount Rd., Madras 600002.
Prakash International Pvt. Ltd., Padma Tower, Rajindra Place, New Delhi 110008.

Shah Traders, 505, Parekh Mkt., 39, Kennedy Bridge, Opera House, Bombay 400004.
Susmit Sangita Inter Magnetics Pvt. Ltd., Gyanco Bldg., Main Rd., Ranchi 834001. (Bihar State).
Teisco Electronics, Imperial Cinema Bldg., Dr. Bhadkamkar Mrg., Bombay 400004.
(See also under Gramophone Records & Recorded Cassettes).

CAST IRON, G.I. PIPES & CAST IRON MATERIALS

Alinda Machine Inds., Yantranagar, Gokul Rd., Hubli 580030.
Baroda Rolling Mills Pvt. Ltd., Chhani Rd., Vadodara 390001.
Bengal Iron Corpn., 2-B, Tarachand Dutt St., Calcutta 700073.
Crawley & Ray (Founders & Engrs.) Pvt. Ltd., 32, Foreshore Rd., P.O. Botanic Garden, Howrah 711103.
East End Hardwares Pvt. Ltd., 21, M. Debendra Rd., Calcutta 700007.
Industrial Development Corpn. of Orissa Ltd., Post Box 78, Bhubaneswar 751001.
Kajaria Foundry Engg. Works Pvt. Ltd., 85, Jolly Maker Chambers No. 2, Nariman Point, Bombay 400021.
Kajeco Inds., Sultanganj, Agra 282004.
Nagpur Engg. Co. Ltd., F-8, MIDC Ind. Estate, Hingna Rd., Nagpur 440016.
National Casting Co., 8, B. B. D. Bag East, Calcutta 700001.
Raj Iron Foundry, Sultanganj, Agra 282004.
Shankar Tubes Ltd., 4, Narkeldanga CIT Main Rd., Calcutta 700054.
Shree Shanker Inds., 53/B, Mirza Ghalib St., Calcutta 700001.
Shriram Iron Foundry & Engg. Works, 4248/2, Ram Bagh, Hathras Rd., Agra 282006.
Supra Enterprise, 32-33, Nehru Place, New Delhi 110019.

CASTINGS—DIE

Amkay Die Casting Ind., Latif House, Iron Market, Bombay 400009.
Ashok Pressure Castings Pvt. Ltd., 31-A, Ind. Estate, Madras 600058.
Best Cast Pvt. Ltd., 50/12, Brick Kiln Rd., Ottery, Madras 600012.
Cast Master, 46, Ind. Estate, Sector 6, Faridabad 121002, (Haryana).
Crown Castings Pvt. Ltd., B-49/1 & 2, Ind. Estate, Sanatnagar, Hyderabad 500018.
Die Casting Ind. Pvt. Ltd., 12-B, N. Subhas Rd., Calcutta 700001.
Ductron Castings Ltd., B-45, Indl. Devpt. Area, Uppal, Hyderabad 500039.
Esvee Tool & Design Engrs., 227, Pollachi Rd., Coimbatore 641021.
Ferrodie Ltd., Wagle Ind. Estate, Thane 400604.
Indian Die Casting Inds., Agra Rd., Aligarh 202001.
Kriscast, F-5, Ind. Estate, Ambattur, Madras 600058.
Mysore Precision Die Casting Pvt. Ltd., Tumkur Rd., Bangalore 560022.
National Foundry, Sonawala Cross Rd., Goregaon East, Bombay 400063.
Nu-Metal Casting Works, 8, Old P.O. St., 2nd Flr., Calcutta 700001.
Prestolite of India Ltd., 16/4, Main Mathura Rd., Faridabad 121003.
Sirai Die Casting Factory, Rd. No. 16, Thane 400601.
Super Auto India, 50, Indl.-cum-Housing Estate, Sector 6, Faridabad 121006, (Haryana).
Usha Die Casting Pvt. Ltd., 5-39, Gr. Kailash, New Delhi 110043.
Vishwakarma Tin Factory, 11, B.M.C. Ind. Estate, Bapty Rd. West, Bombay 400008.
Yojana Udyog Pvt. Ltd., 325, Kalbadevi Rd., Bombay 400002.

CASTINGS—MALLEABLE

Aminchand Pyarelal, Tanda Rd., Jullundur City 144001.
Amit Products Ltd., Behind Arbuda Mills, Rakhial Rd., Ahmedabad 380021.
Bangalore Malleable & Grey Iron Castings, 7th Mile, Mysore Rd., Nayandahalli, Bangalore 560039.
Bihar Malleable Casting Ltd., 16, Hare St., Calcutta 700001.
Bombay Malleable Iron Casting & Allied Ind. Ltd., Neelam, Worli Sea Face, Bombay 400018.
Cochin Malleable Pvt. Ltd., Trichur 680001.
G. G. T. Kaypee Pvt. Ltd., Fitwell House, LBS Mrg., Vikhroli, Bombay 400083.
Gayday Iron and Steel Co. Ltd., 25, G. C. Ave., Calcutta 700013.
Globe Steel Ltd., Ballabhgarh 121004 (Haryana).
Haryana Malleable & Alloy Castings Pvt. Ltd., 42, Sector 27C, Faridabad 121001.
Hindustan Gas & Inds. Ltd., Foundry Dn., 208, Vasant Kutir, R. C. Dutt Rd., Vadodara 390005.
Hindustan Malleables and Forgings Ltd., Jalan House, Jharia 828111.
Indian Iron & Steel Co. Ltd., 50, Chowringhee Rd., Calcutta 700071.
Indian Malleable Castings Ltd., 4, Lyons Range, Calcutta 700001.
Indian Smelting & Refining Co. Ltd., Shastri Marg, Bombay 400078.
Jessop & Co. Ltd., 63, N. Subhas Rd., Calcutta 700001.
Kantilal & Co., 160, N.S.C. Bose Rd., Madras 600001.
Kapil Casting Inds., 3B, Ganga Vihar, 94, Kazi Syed St., Bombay 400003.
Krishna Foundry Works, Naraingarh Rd., Ambala City 134003.
Malleable Iron and Steel Casting Co. Ltd., Tulsi Pipe Rd., Bombay 400013.
Meera & Co., 1/16A, Asaf Ali Rd., New Delhi 110002.
Metro Malleable Manufrs. Ltd., Mysore Rd., Bangalore 560026.
Mukand Iron & Steel Works Ltd., Agra Rd., Kurla, Bombay 400070.
Mysore Malleable Casting Corpn., 2, Lalbagh Fort Rd., Bangalore 560004.
Nitin Castings Ltd., Eastern Express Highway, Thane 400601.
Patnaik Ind. Pvt. Ltd., New Capital, Bhubaneshwar 751001.
Pearlistic Iron Castings & Engg. Works, Dr. R. Prasad Rd., Mulund, Bombay 400080.
Phillips Volkarts Pvt. Ltd., 8B, Lallbazar St., Calcutta 700001.
R. M. Engg. Works, Khokhra Mehmedabad, Ahmedabad 380008.
Shah Malleable Castings Ltd., S. V. Rd., Chitalsar, Manpada, Thane 400607.
Trimurty Malleables Pvt. Ltd., C/o GGT Kaypee Pvt. Ltd., E/13, MIDC, Chikalthana, Aurangabad 431210.
Tubes & Malleables Ltd., 99, Armenian St., Madras 600001.
Vishal Malleables Ltd., 85/2, G.I.D.C., Ankleshwar 393002. (Gujarat).

CASTINGS—NON-FERROUS, METAL, ALLOY, IRON, CAST IRON, STEEL, STAINLESS STEEL & BRASS

Andhra Pradesh

Allied Mfrs. Ind., C-16, Ind. Estate, Sanatnagar, Hyderabad 500018.
Duccan Alloy Castings, 5-B, Indl. Development Area, Patancherlu 502319.

Bihar

Bhoruka Inds. Pvt. Ltd., J. Nagar, Jamshedpur 831012.
Kumardhubi Engg. Works Ltd., Kumardhubi 828203.Dhanbad Dist.

Delhi

Chadha Ind. (India), 4, D.L.F. Ind. Area, Najafgarh Rd., New Delhi 110015.
Jagat Castings Co.Pvt. Ltd., 1436, Chandni Chowk, Delhi 110006.
Plycast (Delhi) Pvt. Ltd., B-11, Greater Kailash, New Delhi 110048.
Superior Steel Products Pvt. Ltd., Bawa Potteries Compd., Village Kishangarh (Mehrauli), New Delhi 110030.

Gujarat

Aditya Metal & Alloys Pvt. Ltd., 612, Premier Chambers, R. C. Dutt Rd., Vadodara 390005.
Ahmedabad Induction Alloys Pvt. Ltd., 235/236, GVMM Estate, Odhav Rd., Ahmedabad 382410.
Arrow Steel Castings Pvt. Ltd., 123, Vitthal Udyognagar 388121, (Gujarat).
Bhagwati Spherocast Ltd., 132/1, GIDC Estate, Odhav, Ahmedabad 382415.
C. M. Smith & Sons. Court Rd., Nadiad 387001.
Gujarat Technocastings Pvt. Ltd., Near G. D. High School, Saijpur Bogha. Ahmedabad 382345.
Investment & Precision Castings Ltd., Nari Rd., Bhavnagar 364006.
Kansara Bros., Gujarat Hosiery Mills Compound, Ahmedabad 380021.
Khira Foundry & Engg. Works, Patel Colony, Jamnagar 361001.
Metafab & Casting, 72, Union Indl. Estate, Ahmedabad 380023.
Milan Moulding Works, 13/14, Ashish Indl. Estate, Nagarwel Hanuman Rd., Rakhial, Ahmedabad 380023.
National Castings, Ind. Estate, Bapunagar, Ahmedabad 380023.
Pathik Ind., 68/71, Union Co-op. Indl. Estate, Ahmedabad 380021.
Premier Die-Casting & Engg. Co. Ltd., Ramol, Ahmedabad 380008.
Punjab Steel Rolling Mills, Vadodara 390005.
Rohit Castings & Forgings. 97/98, GIDC Chitra, Bhavnagar 364004.
Sanjay Engrs. & Founders, GIDC, Vatva, Ahmedabad 382445.
Shree Ram Mills Ltd. (Foundry Divn.), Surat Navsari Rd., P.O. Baroda Rayon, Udhna 394210.
Steelcast Bhavnagar Pvt. Ltd., Rupavari Rd., Bhavnagar 364001.
Trupti Castings, Anand-Sojitra Rd., Vallabh Vidyanagar 388120.
Vikram Steel Pvt. Ltd., Garedia Kuva Rd., Rajkot 360001.

Haryana

Industrial Casting Corpn., Plot No. 247, Sector 24, Faridabad 121005.

Karnataka

Canara Steel Ltd., Ind. Area, Mangalore 575010.
Kashyap Engg. & Metallurgicals Pvt. Ltd., 2/A-4/5, Ind. Estate, Rajajinagar, Bangalore 560044
Lamina Foundries Ltd., 17-19, Bikambady, Indl. Area, New Mangalore 575010.
Mysore Machinery Mfrs. Ltd., Mysore Rd., Bangalore 560026.
Mysore Wire & Metal Ind., 13, 4th Cross, Magadi Rd., Bangalore 560023.
Steelcast Specialities, 38, Sarakki Indl. Layout, Bannerghata Rd., Bangalore 560029.

Madhya Pradesh

Bhilai Engg. Pvt. Ltd., Bhilai 490001.
Jash Engineering Pvt. Ltd., Ishwar Niwas, 42, Chhotigwaltoli, Indore 452001.
M. P. Alloy Castings Ltd., Post Box No. 61, Bilaspur 459001.
Techno-Cast Pvt. Ltd., 25, Palasia Main Rd., Indore 452008.

Maharashtra

Aashish Products, Chriwadi, Goregaon East, Bombay 400063.
Anand Udyog Pvt. Ltd., Agarwal Estate, C. S. T. Rd., Kalina, Bombay 400098
Ashoka Inds., 69, Govt. Ind. Estate, Kandivli, Bombay 400067.
Ashutosh Castings Ltd., 233, West High Rd., Nagpur 440010.
B. D. Steel Castings Ltd., 502-B, Poonam Chambers, Shivsagar Estate, Worli, Bombay 400018.
Bagga Agencies Pvt. Ltd., Kala Killa Rd., Dharavi, Bombay 400017.
Bharat Forge Co. Ltd., Mundhwa, Pune 411601.
Bombay Metal & Alloys Mfg. Co. Pvt. Ltd., Darukhana, Bombay 400010.
Bombay Metal Refinery, 24, Old Anjirwadi, Mascarenhas Rd., Mazagaon, Bombay 400010.
Business Combine Ltd., Plot No. 16, M.I.D.C. Estate, Satpur, Nasik 422007.
Chandra Alloys & Steel Pvt. Ltd., Plot No. D/14, MIDC, Shiroli, Kolhapur 416122.
Devidayal Metal Ind. Ltd., Darukhana, Bombay 400010.
Emmes Metal Pvt. Ltd., 147, Govt. Ind. Estate. Bombay 400067.
Fabricast, 6-B, Seth Indl. Estate, Suren Rd., Andheri East, Bombay 400093.
Forward Alloys & Castings, Patil Compd., L. B. S. Mrg., Bhandup, Bombay 400078.
G. M. Mittal Stainless Steel Pvt. Ltd., 203-A, Bank House, Kalbadevi Rd., Bombay 400002.
Genco Ind. Pvt. Ltd., Plot No. A52/53, Wagle Ind. Estate, Thane 400604.
Ghatge Patil Inds. Ltd., Uchgaon 416045, Kolhapur Dist.
Indian Smelting & Refining Co. Ltd., Shastri Marg, Bhandup, Bombay 400078.
Indian Standard Metal Co. Ltd., Post Box 6960, Bombay 400027.
Industrial Casting Co., Wagle Ind. Estate, Thane 400604.
Jams Engg. Pvt. Ltd., Plot 35, Central Rd., MIDC Estate, Marol, Andheri (E), Bombay 400093.
K. K. Nag Pvt. Ltd., 23/5A, Bund Garden Rd., Pune 411001.
Kamani Metals & Alloys Ltd., Kurla, Bombay 400070.
Marathwada Alloy Steels Co. Ltd., 301-A, Poonam Chambers, Shiv Sagar Estate, Worli South, Bombay 400018.
Metallica Works Pvt. Ltd., 138, Govt. Ind. Estate, Bombay 400067.
Metalloys Industries, C-11/12, Dalia Indl. Plots, V. Desai Rd., Andheri West, Bombay 400058.
Minhas Steels Pvt. Ltd., 45, Dharmjyot No. 4, A. B. Nair Rd., Bombay 400049.
Montana Pvt. Ltd., Rahimtoola House, Homji St., Bombay 400001.
Northern Alloys Foundry, 9/9, Embassy Centre, Nariman Point, Bombay 400021.
Pefco Foundry & Chemicals Ltd., E-14 & 15, Bhosari Indl. Area, Pune 411026.
Pentagon Stainless Steel Castings, and Alloys Pvt. Ltd., Madhu Mukund, 33, Sion East, Bombay 400022.
Permanent Magnets Ltd., 20, Old Custom House Rd., Bombay 400023.
Petrochem Tube Inds., 119, Bajaj Bhavan, N. Point, Bombay 400021.
Phiroze Sethna Ind., 14, J. Tata Rd., Bombay 400020.
Powder Metals & Alloys Pvt. Ltd., A-30, Ind. Estate, Thane 400604.
Prakalp Pvt. Ltd., MIDC Ind. Area, Chikalthana 431210. Aurangabad Dist.
Pratisthan Alloy Castings, W-14, MIDC, Chikalthana, Aurangabad 431210.
Quality Steel Castings, 45, Dr. Ambedkar Rd., Pune 411001.
Rashtriya Metal Inds., Ltd. M. Vasanji Rd., Bombay 400059.
Sethi Nippon Pvt. Ltd., 26, Avantikabai Gokhale St., Bombay 400004.
Shah Castings, 5th Kumbharwada, Durgadevi Rd., Bombay 400004.
Shah Jayantilal Chunilal & Co., 5th Kumbharwada, Durgadevi Rd., Bombay 400004.
Shell Moulding Equipment, 17-A, Ghatkopar Ind. Estate, Bombay 400086.
Shivaji Works, Shivashahi, Solapur 413224.
Shivasai Tdg. Corpn., 3, Ratan Manzil, Zaveri Bazar, Bombay 400002.
Shree Ganesh Ferro Castings, 34, MIDC Rd., 13 St., Satpur, Nasik 422007.
Sim Processors Pvt. Ltd., 220, Tulsiani Chambers, Nariman Point, Bombay 400021.

Steel Knight Castings. Plot D-32. MIDC. Satpur. Nasik 422007.
Steel Smelters. Piramal Ind. Estate. S. V. Rd., Goregaon (W). Bombay 400062.
Super Alloys & Castings. Post Box 5638. Dadar, Bombay 400014.
Supreme Foundry & Engg. Works Pvt. Ltd., 3C1. Court Chambers. 35. New Marine Lines. Bombay 400020.
Suresh Engg. Co. Pvt. Ltd., 414/B. Walbhat Rd., Goregaon East, Bombay 400063.
Trimurty Malleables. Aurangabad 431001.
Uni Abex Alloy Products Ltd., Liberty Bldg., Sir Vithaldas Thackersey Marg. Bombay 400020.
UNI Deritend Precision Castings. S. V. Rd., Manpada. Thane 400607.
Universal Ferro & Allied Chemicals Ltd., Liberty Bldg., Sir Vithaldas Thackersey Mrg., Bombay 400020.
Universal Foundry Pvt. Ltd., Old Nagardas Rd., Andheri East, Bombay 400069.
Wheelabrator Alloy Castings Ltd., Khopoli 410203. Kolaba Dist.

Orissa

Orissa Textiles & Steels Ltd., Naya Bazar. Cuttack 753004.

Pondicherry

Atlas Metals & Alloys, C-2, Indl. Estate, Krumambakkam, Pondicherry 607402.

Punjab

Daulat Indl. Corpn. Pvt. Ltd., Civil Lines. Ludhiana 141001.
Gurkartar Steels Pvt. Ltd., Focal Pt., Ludhiana 141010.
Hindmurti Engrs., Preetnagar Rd., Indl. Area. Jullundur 144004. (Punjab).
Partap Steels. Mandi Gobindgarh 147301. Patiala Dist.

Rajasthan

Jaipur Metals & Electricals Ltd., Jaipur 302006.
National Engg. Inds. Ltd., Khatipura Rd., Jaipur 302067.

Tamil Nadu

Arkonam Castings & Forgings Ltd., 38. Mount Rd., Madras 600006.
Automotive Castings. Sudarshan Bldg., 86. Chamiers Rd., Madras 600018.
Best & Crompton Engg. Co. Pvt. Ltd.: 13/15. North Beach Rd., Madras 600001.
Castings & Allied Inds., Palanigounden Pudur. Vadamaduri. Coimbatore 641017.
Dharmapuri Steel Castings Ltd., 41. Kasturi Ranga Iyengar Rd., Madras 600018.
Electralloy Special Steel Castings Pvt. Ltd., Plot No. 25. Sipcot Indl. Complex. Hosur 635126.
Industrial Feeders. Plot 50. Ambattur Indl. Estate. Madras 600058.
K. C. P. Ltd., 38. Mount Rd., Madras 600006.
Kris Cast. F-5. Indl. Estate. Ambattur. Madras 600058.
Metalcast Services. B-12. Ind. Estate. Madras 600058.
Pattern & Carpentry Works. 60. MKN Rd., Madras 600032.
Pioneer Alloy Castings Ltd., 125. St. Mary's Rd., Madras 600018.
Samco Metals & Alloys Pvt. Ltd., 53, Jones Rd., Madras 600015.
Secals Ltd., 8, Rutland Gate, IV St., Madras 600006.
Sivananda Steels Ltd., Ambattur. Madras 600058.
South India Sanfits. Trichy Rd., Chinthamanipudur. Coimbatore 641103.
Southern Alloy Foundries Pvt. Ltd., M. Milk Colony. Madras 600060.
Spheroidal Castings Ltd., 46. Thiruneermalai Rd., Chromepet, Madras 600044.
Sri Hari Foundry, 3, Amman Kulam Rd., P. N. Palayam. Coimbatore 641018.
Sri Ramakrishna Steel Inds. Ltd., Karamadai. Coimbatore 641104.
Supertech Castings, 97, Srinagar Colony, Saidapet, Madras 600015.
Tamilnadu Alloy Foundry Co. Ltd., Plot 21 & 22. Industrial Complex. Hosur 635126.
Trichy Steel Rolling Mills Ltd., Senthannipuram. Tiruchirapalli 620004.

Uttar Pradesh

Aryan Metal Ind., Badli Katra. Mirzapur 231001.
Gupta Non-Ferrous Foundry Ind., Naini 211008. Allahabad Dist
J. K. Iron & Steel Co. Ltd., Kamla Tower. Kanpur 208001.
Precision Tools & Castings Pvt. Ltd., Malaviya Nagar. Lucknow 226004.
S. P. Foundries. 56/15. Factory Area. Kanpur 208001.
Saru Smelting & Refining Corpn. Ltd., Meerut Cantt. 250001.

West Bengal

Abrasives & Castings Ltd., 11. Canal Rd., Calcutta 700010.
Albraco Metal Works Pvt. Ltd., 1. Mall Rd., Calcutta 700028.
Alloy Metal Ind. Pvt. Ltd., 16. R. S. Mullick Lane. Calcutta 700007.
Basant Udyog Ltd., 8. Camac St., 10th Flr., Calcutta 700017.
Bengal Ingot Co. Ltd., 5. Hide Rd., Calcutta 700043
Binani Metal Works Pvt. Ltd., 38. Strand Rd., Calcutta 700001..
Calcutta Iron. Steel & Non-Ferrous Metal Works. P-88/4. Incinerator Rd., Calcutta 700053.
Castings Corpn. India Pvt. Ltd., 45. Madhusudan Palchowdhury Lane. Howrah 711101.
Damehra Steels & Forgings Pvt. Ltd., P-35. India Exchange Place. Calcutta 700001.
Die Casting Ind. Pvt. Ltd., 12-B. N. Subhas Rd., Calcutta 700001.
East Coast Mfg. & Mktg. Pvt. Ltd., 4. G. C. Avenue. Calcutta 700013.
Hind Die-Casting Pvt. Ltd., 12. Govt. Place (E), Calcutta 700069.
Keymer Begshawe Mfg. Co. Pvt. Ltd., 22. Strand Rd., Calcutta 700001.
Kusum Engg. Co. Ltd., 25. Swallow Lane. Calcutta 700001.
Lynx Machinery Ltd., 104. Ultadanga Main Rd., Calcutta 700004.
Nandikeshwari Iron Foundry Pvt. Ltd., 16. India Exchange Place. 2nd Flr., Calcutta 700001.
Orient Steel & Inds. Ltd., 2. Brabourne Rd., Calcutta 700001.
Shalimar Works Ltd., 4. Garden Reach Rd., Kidderpore. Calcutta 700023.
Shreelakshmi Casting Works Pvt. Ltd., 4B, B.R.B.B. Rd., Calcutta 700001.
Super Castings. 5/2. M. M. Feeder Rd., Calcutta 700057.

CASTORS & TROLLEY WHEELS

Bombay Star Engg., 7. Mulchand Mansion. 30. Princess St., Bombay 400002.
Globe Indl. Equipments. 57. S.P. Rd., Bangalore 560002.
Great Maharashtra Rubber Works. Post Box 7480. Bombay 400060.
Gujarat Industrial Trucks Ltd., India House. Opp. G.P.O., Bombay 400001.
Hemani Inds., 187. Quay St., Mazgaon. Bombay 400010.
Jayant Dalal Ltd., 163/3. Lloyds Rd., Madras 600014.
King-Dom Inds., Govinda Bldg., Rua Alfonso de Albuquerque. Panaji 403001.
Mahalaxmi Enterprises. 240. Nagdevi St., Bombay 400003.
Nagori & Sons. 41. Hamam St., Narang House. Bombay 400001.
National Polymer Products. 70, Virwani Indl. Estate. W. Express Highway, Goregaon, Bombay 400063.
Rexello Castors Pvt. Ltd., 331/333. Ebrahim Rahimtulla Rd., Bombay 400009.
Sabas Engg. Works. 105. Dr. E. Moses Rd., Worli. Bombay 400018.
Sanjay Mechanical Inds., 10. Hill Crest. Plot No. 7, N/S Rd., No. 10, J. V. D. Scheme, Bombay 400058.
Siddh Engrs. Pvt. Ltd., 86. Sukhlaji St., Bombay 400008.
Special Equipment Co., Chandraprabhu Indl. Estate. 20. K. V. Bhai Bai Mukund Mrg., Next to Byculla Goods Depot. Bombay 400012.
Tex-Mach Engrs., 5-B. Singh Indl. Estate. Ram Mandir Rd., Goregaon West. Bombay 400062.

CATALYSTS

Catalyst (India) Ltd., 79. Masjid Bunder Rd., Bombay 400003.

Catalysts & Chemicals India (West Asia) Pvt. Ltd., P.O. Adyar (Via Udyogmandal) 683501, Kerala.
Kerala Soaps & Oils Ltd., Calicut 673011.
Noble Metal Catalysts Pvt. Ltd., Plot 31, Phase II, Central Rd., MIDC, Andheri East, Bombay 400093.
United Catalysts (India) Ltd., 240, Dr. D. N. Rd., Bombay 400001

CELLULOSE PRODUCTS

Kesoram Industries and Cotton Mills Ltd., 42, Garden Reach Rd., Calcutta 700024.
Reliance Cellulose Products Ltd., 156-159, Sardar Patel Rd., Secunderabad 500003.
Technosynd Engrs., A-192, Rd. A., Wagle Estate, Thane 400604.
Travancore Rayons Ltd., 762, Anna Salai, Madras 600002.

CEMENT-MAKING MACHINERY & EQUIPMENT

ACC-Vickers Babcock Ltd., Express Towers, Nariman Point, Bombay 400020.
Indage Plants & Equipments Pvt. Ltd., Indage House, 82, Dr. A. B. Rd., Worli, Bombay 400018.
Larsen & Toubro Ltd., L. & T. House, Ballard Estate, Bombay 400038.
Minato Shirke Concrete Machines Pvt. Ltd., 72-76, Mundhwa, Pune 411036.
New Metal Foundries (Cement Machinery Dn.), Post Box 4317, New Delhi 110015.
Puzzolana Machinery Fabricators, 3, Gulab Baug, Opp. Acharya Garden, Sion Trombay Rd., Chembur, Bombay 400071.
Rohit Machines Corpn., 14, Rani Jhansi Rd., Motia Khan, New Delhi 110055.
Tinytech Plants Pvt. Ltd., Tractor House, Gondal Rd., Rajkot 360002. (Gujarat).

CEMENT PRODUCTS

Andhra Pradesh

Allied Ind., 1-8-582, Ind. Area, Azamabad, Hyderabad 500020.
Andhra Cements Ltd., Gandhinagar, Vijayawada 520003.
Deccan Cements Ltd., Nagarjuna Hills, Panjagatta, Hyderabad 500004.
Hemadri Cements Ltd., 1-10-1/12, Ashoknagar, Hyderabad 500020.
Hyderabad Asbestos Cement Products Ltd., Sanatnagar, Hyderabad 500018.
Kakatiya Cements Ltd., 1-10-140/1, 'Gurukripa', Ashoknagar, Hyderabad 500020.
Kesoram Cement, Basantnagar 505187, Karimnagar Dist.
Panyam Cements & Mineral Ind. Ltd., Cement Nagar, 518206, Kurnool Dist.
Raasi Cement Ltd., 1-10-125, Ashoknagar, Hyderabad 500020.
Someswara Cement & Chemicals Ltd., 6-3-609/15, Anandnagar Colony, Khairabad, Hyderabad 500004.
Tadpatri Cement Ltd., 1-2-9/C, Sardar Patel Rd., Secunderabad 500003.

Delhi

ARC Cement Ltd., C-37, Atma Ram House, Conn. Place, New Delhi 110001.
Asbestos Cement Ltd., Ashok Bhavan (6 & 7 Floors), 93, Nehru Place, New Delhi 110019.
Dalmia Cement (Bharat) Ltd., 4, Scindia House, New Delhi 110001.
Hindustan Prestressed Concrete Structures Pvt. Ltd., B-6, A. Ali Rd., New Delhi 110002.

Gujarat

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Baroda : A-1/2, Nandesari Industrial Area, P.O. Nandesari-391 340. Dist. BARODA.
Phones : 325, 366.
Cable Address : "Catalysts Nandesari".

Sales, Administration and Technical Service :

Bombay : 240, D. Naoroji Road, Bombay 400 001.
Cable Address : "Flowermead Bombay".
Telex : Bombay (011) 3986 CIWA, Phones : Sales & Administration : 265789, 262052, 265780.
Technical Service : 264849 and 814312.

New Delhi : 402, Mansarover Building, 90, Nehru Place, New Delhi-110019.
Telex : (031) 4744 AB : UCIL.

United Catalysts India Ltd.

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Gujarat Himalay Cements Ltd., Porbandar 360575.
Panchmahal Cement Co. Ltd., 51, Alkapuri, Vadodara 390005.
Radhakrishna Cement Ltd., Ambica Chambers, Near High Court, Navrangpura, Ahmedabad 380009.
Royal Minerals & Metals, Royal Bldg., Relief Rd., Ahmedabad 380001.
Sandip Cements Pvt. Ltd., Udyognagar, Mahuva 364290, Bhavnagar Dist.
Saurashtra Cement & Chemical Products Ltd., Ranavav 360560.
Shakti Cement Co. Pvt. Ltd., Coins Corner, Dr. Yagnik Rd., Nr. Jagnath Temple, Rajkot 360001.
Spunpipe & Const. Co., (Baroda) Pvt. Ltd., R. C. Dutt Rd., Vadodara 390005.
Vallabhnagar Cement Products, 1669, Khadia, Ahmedabad 380001.

Karnataka

Bagalkot Udyog Ltd., Bagalkot 587111, (Bijapur Dist.).
Hillman Products, 764th Main Rd., Jayanagar, Bangalore 560011.
Rajashree Cement, 1-114/10A, Aiwan-E. Shahi Rd., Gulbarga 585102.
Surfa Coats Pvt. Ltd., 358, III Block, Rajajinagar, Bangalore 560010.

Kerala

Malabar Cements Ltd., Shobha TSM Complex, Rly. Stn. Rd., Palghat 678001.
Travancore Cements Ltd., Nattakom, Kottayam 686013.

Madhya Pradesh

Raymond Cement Works, Link Rd., Bilaspur 495001.
Sarda Mineral Corpn., Barhi Rd., Katni 483501.

Maharashtra

Associated Cement Cos. Ltd., Cement House, 121, M. Karve Rd., Bombay 400020.
Century Cement, Industry House, 159, Churchgate Reclamation, Bombay 400020.
Devi Ind., 1271, Deccan Gymkhana, Pune 411004.
ESCO (Poona) Pvt. Ltd., 2432, East St., Pune 411001.
Larsen & Toubro Ltd., Cement Marketing, Post Box 304, Bombay 400021.
Maharashtra Spun Pipe Ind. Pvt. Ltd., 96, M.I.D.C., Poona-Nasik Rd., Bhosari, Pune 411026.
Maihar Cement, Industry House, Churchgate Reclm., Bombay 400020.
Manikgarh Cement, Mittal Chambers, 12th Flr., 228, N. Point, Bombay 400021.
Oriental Cement Paints Inds., H-13, 'Everest', 9th Flr., Tardeo, Bombay 400034.
Rathi Brothers India, 27, Shankarshet Rd., Pune 411009.
Raymond Cement Works, Jekegram, Thane 400606.
Siporex India Ltd., 72/76, Ind. Estate, Mundhwa, Pune 411036.
Snowcem India Ltd., Killick House, Charanjit Rai Mrg., Bombay 400001.
Stocrete Ind., 413, Commerce House, Medows St., Bombay 400023.

Orissa

Hira Cement Works, Cementnagar, P.O. Bardoi 768038. Sambalpur Dist.
Orissa Cement Ltd., Rajgangpur 770017 (Sundergarh Dist.).

Rajasthan

Jan Laghu Cement Udyog Ltd., Neem Ka Thana 332713. Sikar Dist.
Shree Cement Ltd., Civil Lines, Jaipur 302001.
Udaipur Cement Works, Bajajnagar 313021. Udaipur Dist.

Tamil Nadu

Chettinad Cement Corpn. Ltd., 64, Armenian St., Madras 600001.
Dalmia International, 29, Ind. Estate, Ambattur, Madras 600058.
India Cements Ltd., 175/1, Mount Rd., Madras 600002.
Madras Cements Ltd., 'Ramamandiram', Rajapalayam 626117.

Uttar Pradesh

Modi Rubber Ltd., Cement Project, Modinagar 201204.
Venus Cements Ltd., 78, Bank St., Meerut 250001.

West Bengal

Sarbamangala Mfg. Co., 31, College St., Calcutta 700012.

CERAMICS & POTTERIES

Andhra Pradesh

Micro Ceramics Pvt. Ltd., A-8, Co-operative Ind. Estate, Balanagar, Hyderabad 500037.
Regency Ceramics Ltd., 5-8-356, Chirag Ali Lane, Hyderabad 500001.

Bihar

Bengal Bihar Firebricks & Pottery Works Pvt. Ltd., P. O. Mugma 828204, Dhanbad Dist.
Bihar Firebricks & Potteries Ltd., P.O. Mugma 828204, Dhanbad Dist.
India Firebricks & Insulation Co. Ltd., P.O. Marar 829117, Hazaribagh Dist.
Kumardhubi Fireclay & Silica Works Ltd., P. O. Kumardhubi 828203, Dhanbad Dist.
Nalanda Ceramics & Inds. Ltd., C-296, Ashok Nagar, Ranchi 834002.

Delhi

Bawa Potteries, Mehrauli, New Delhi 110030.
Ceramics (India) Ltd., C-4, Main Shopping Centre, Paschimi Mrg., Vasant Vihar, New Delhi 110057.
Palam Potteries, Palam Gaon, New Delhi 110037.
Pelican Ceramics Ind., Mehpalpur, Gurgaon Rd., New Delhi 110037.
Scindia Potteries Pvt. Ltd., Sarojini Nagar, New Delhi 110023.

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Ashok Pottery Works, Naroda Rd., Ahmedabad 380002.
Baroda Ceramics Pvt. Ltd., 78, Chhani Rd., Vadodara 390001.
Decora Ceramics Pvt. Ltd., Sadhna Bldg., Jubilee Chowk, Rajkot 360001.
Digvijaya Tiles & Potteries Ltd., Vagadia, Surendranagar Dist.
Electro-Porcelain Ind., Plots 16 & 17, G.I.D.C. Estate, Post Odhav 382415, Ahmedabad Dist.
Jyoti Ltd., Ceramics Divn., P.O. Chemical Industries, Vadodara 390003.
Kathiawar Inds. Ltd., P.O. Sherbaugh 362255, Junagadh Dist.
Khodiyar Pottery Works Ltd., Sihor 364240.
Madhusudan Ceramics, 'Ankur', Near Dinbai Tower, Ahmedabad 380001.
Nawroji N. Vakil & Co., Pottery Works, Vijaya Mills, Naroda Rd., Ahmedabad 380002.
Parshuram Pottery Works Co. Ltd., Morvi 363641.
Rajkamal Pottery Works, Ambawadi, Saijpur Bhoga, Naroda Rd., Ahmedabad 382345.
Shree Laxmi Ceramic Inds., National Highway Rd., Morvi 363642 (Gujarat).
Shri Laxmi Pottery Works, Naroda Rd., Behind Kalyan Mills, Ahmedabad 380002.

Haryana

A. N. Bhaskar Sons, Amarnagar, Faridabad 121003.
Hindustan Sanitaryware & Ind. Ltd., Bahadurgarh 124507, Rohtak Dist.

Karnataka

Fibrebricks & Potteries Pvt. Ltd., Yeshvantpur, Bangalore 560022.
Mysore Porcelains Ltd., Science Institute Post, Bangalore 560012.
Mysore Stoneware Pipes & Potteries Ltd., VI Cross Rd., Gandhinagar, Bangalore 560009.

Kerala

Kerala Ceramics Ltd., Kundara 691501; Quilon Dist.
New India Ceramics Ltd., Feroke 673631, Kozhikode Dist.
Quilon Ceramics, Eravipuram, Quilon 691001.
Standard Pottery Work Pvt. Ltd., Alwaye 683101.
Thomas Stephen & Co. Ltd., P.B. 14, Quilon 691001.

Madhya Pradesh

Gwalior Potteries Ltd., Gwalior 474001.
Ishwar Inds. Ltd., Niwar, Katni 483501, Jabalpur Dist.
Perfect Pottery Co. (Madhya Bharat) Ltd., Hanumantal, Jabalpur 482001.

Maharashtra

Asian Electronics Ltd., Rd. No. 28, D-11, Wagle Ind. Estate, Thane 400604.
Bassein Ceramics Pvt. Ltd., 324, Cooks Bldg., Dr. D. Naoroji Rd., Bombay 400001.
Bombay Potteries & Tiles Ltd., 110, Raheja Centre, 214, N. Point, Bombay 400021.
Central Potteries Works, Bagadganj, Nagpur 440008.
Chemet, 210, Dr. D. N. Rd., Bombay 400001.
Eastern Ceramics Ltd., M. Gandhi Rd., Opp. Mitha Ghar, Goregaon West, Bombay 400062.
Jyoti Ceramic Inds., Plot No. C21, NICE, Satpur, Nasik 422007.
K. M. Ceramics, 102, Bank of Baroda Bldg., Palton Rd., Bombay 400001.
Kashmira Ceramic Products Pvt. Ltd., S. Vivekanand Rd., Mira Village, Bombay 400092.
Minerals Grinding Corpn., 56-D, Clerk Rd., Jacob Circle, Bombay 400011.
Navbharat Potteries Pvt. Ltd., Tokersey Jivraj Wadi, Zakaria Bunder Rd., Sewri, Bombay 400015.
Precision Ceramics, Post Box 7730, Bombay 400092.

Orissa

Orissa Ind. Ltd., Katchery Rd., Rourkela 769001.

Punjab

Himalaya Potteries Ltd., Phillaur 144410, Jullundur Dist.
Snow White Porcelain Enamel Works, Outside Suri Gate, Ferozepur City 152001.

Rajasthan

Bikaner Ceramics Pvt. Ltd., Ind. Area, Bikaner 334001.
Garg Alloys Pvt. Ltd., E-51, Indl. Complex, Bhiwadi 301707, Alwar Dist. (Rajasthan).
Jaipur Glass & Potteries Works Ltd., Tonk Road, Jaipur 302004.
Perfect Pottery Co. Ltd., Bharatpur 321001.
Rajasthan Ceramic Inds., Bhopalganj, Bhilwara 311001.

Tamil Nadu

Carborundum Universal Ltd., 11-12, North Beach Rd., Madras 600001.
Coastal Ceramics & Clay Works Pvt. Ltd., Sreedevikuppam, Alwarthirunagar, Madras 600087.
Dalmia Ceramic Inds. Ltd., Dalmiapuram 621651, Tiruchirapalli Dist.
E. I. D. Parry (India) Ltd., Dare House, P.B. 12, Madras 600001.
Kent Ceramic Tiles & Co. Pvt. Ltd., Vanagaram, Madras 602102.
Neiveli Ceramics & Refractories Ltd., 109, Nungambakkam High Rd., Madras 600034.
Seshasayee Ind. Ltd., Serakuppam, P.O. Vadalur 607303., South Arcot Dist.
Stoneware Pipes (Madras) Ltd., Tiruvallur 602001, Chingleput Dist.
Tube Suppliers Ltd., 99, Armenian St., Madras 600001.

Uttar Pradesh

Indian Ceramic House, Langra-ki-Chowki, Agra 282004.
Modern Ceramic Co. Ltd., C-32/27, Vidyapith Rd., Varanasi 221002.
Orient Ceramics & Inds. Ltd., 8, Indl. Area, Sikandarabad 203205, Bulandshahr.
U.P. Ceramics & Potteries Ltd., Model Town, Ghaziabad 201001.
UPSIC Potteries Ltd., B-15, Sarvodayanagar, Kanpur 208005.

West Bengal

Allied Distributors, 33, Brabourne Rd., Calcutta 700001.
Amic Ind. Pvt. Ltd., 10, B.T. Rd., Calcutta 700056.
Arco Ceramics, 8/1, G. Datta Garden Rd., Calcutta 700004.
Art Potteries Pvt. Ltd., Majerhat Nimta, 24 Parganas, Calcutta 700049.
Associated Porcelain Pvt. Ltd., 19, R. N. Mukerjee Rd., Calcutta 700013.
Bengal Enamel Works Ltd., 24, Chittaranjan Ave., Calcutta 700012.
Bengal Linn Ind. Furnace Ltd., 27B, Camac St., Calcutta 700016.
Bengal Metrograph Co. Pvt. Ltd., 53, Pramanick Ghat Rd., Calcutta 700036.
Bengal Porcelain Co. Pvt. Ltd., 1/2, Motisil St., Calcutta 700013.
Bengal Potteries Ltd., 45, Tagore Rd., Calcutta 700015.
Bharat Grinders, 91, Dharamtolla St., Calcutta 700013.
Burn & Co. Ltd., Martin Burn House, 12, Mission Row, Calcutta 700001.
Cieco Pvt. Ltd., 2/1, Barrackpore Trunk Rd., Calcutta 700050.
Enamelnagar Development Corpn. Ltd., 60/2, Dharamtala St., Calcutta 700013.
Gidwaney Bros., 73, N. Subhas Rd., Calcutta 700001.
Hindustan Potteries, 12, S. K. Daw Lane, Calcutta 700007.
Hindustan Refractories & Ceramics Pvt. Ltd., 20, N. Subhas Rd., Calcutta 700001.
Hirji & Co. Pvt. Ltd., 20, Pollock St., Calcutta 700001.
India Potteries Ltd., 91, Dharamtala St., Calcutta 700013.
Jharia Firebricks & Pottery Works Pvt. Ltd., 3, Princep St., Calcutta 700013.
Kusum Engg. & Co. Ltd., 25, Swallow Lane, Calcutta 700001.
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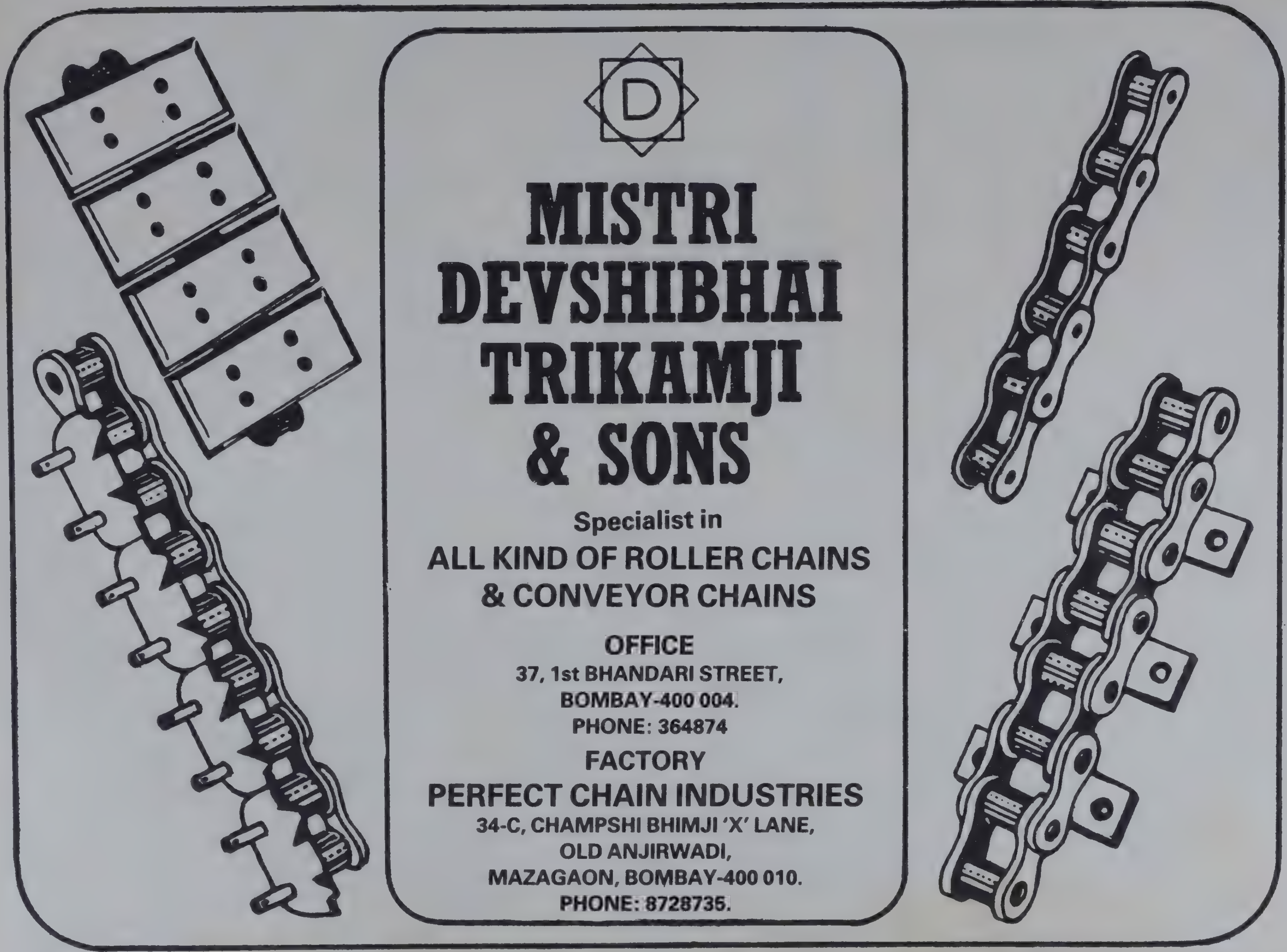

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(See 'Material Handling' in this list.)

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Ashok Steel Chain Mfg. Co., 6, Sewree Cross Rd., Bombay 400015.
Britex Inds., Noble Chambers, 11, Ghogha St., Bombay 400001.
Chains India Pvt. Ltd., Ruby Centre, 75C, Park St., Calcutta 700016.
Communications & Power Equipment Co. Pvt. Ltd., 1, Lalbaug Indl. Estate, Bombay 400012.
Eastern Commercial Corpn., 5/1, Clive Row, Calcutta 700001.
General Textile Stores, 66, Dhanji St., Bombay 400003.
Hybro Chains Pvt. Ltd., No.IG, Nungambakkam High Rd., Madras 600034.
Indian Chain Mfg. Co., 137, B. R. Basu Rd., Calcutta 700001.
Indian Link Chain Mfrs. Ltd., L. B. Shastri Marg, Bhandup, Bombay 400078.
L. G. Balakrishnan & Bros. Pvt. Ltd., Ganapathy, Coimbatore 641006.
Lathiwala & Co., 12, Islampura X Lane, Bombay 400004.
M. R. Kalia Industries, 18/1A, Sukeas Lane, Calcutta 700001.
Meccano Machinery Mfg. Co., 19, Arun Chambers, Tardeo Rd., Bombay 400034.
Mistri Devshibhai Trikamji & Sons, 37, 1st Kumbarwada (Bhandari St.), Bombay 400004.
Nav Bharat Link Chain Mfrs. Pvt. Ltd., Tilakraidit, P.O. Govindpura 828109, Dhanbad Dist. (Bihar).
New Rollo (India) Pvt. Ltd., J7/28, Rajouri Garden, New Delhi 110027.
Pahwa Chains Pvt. Ltd., 72, Indl. Area, Chandigarh 160017.
Rolcon Engg. Co. Ltd., Vallabh Vidyanagar 388120 (Gujarat).
S. K. Engg. Co. Pvt. Ltd., Naurangabad, G. T. Rd., Aligarh 202001.
Sanatan Iron & Steel Chain Mfg. Co. Pvt. Ltd., 29B, Bentink St., Calcutta 700001.
Sethi Inds., Tanda Rd., Jullundur 144004.
T. I. Diamond Chains Ltd., Ambattur, Madras 600053.
Tabard Power Transmission (India) Pvt. Ltd., 35, Golden Beach, Juhu, Bombay 400059.
Tirupati Alloy & Steel Pvt. Ltd., 40, Pologround, Indore 452003.
Transmission Chain Centre, G-37, Sri Narasimharaja Rd., Bangalore 560002.
Veete Chains Pvt. Ltd., Perungudi, Madras 600096.
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Wipper Drive Engg., 11, Noble Chambers, Ghoga St., Bombay 400001.

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Crystalite, 56, Mangaldas Rd., Off Lohar Chawl, Bombay 400002.
Jafkay Lights, Dina Bldg., 53, M. Karve Mrg., Bombay 400002.
Kapoor Lamp Shade Co., 82-84, Janpath, New Delhi 110002.
Lite Centre, 10, Dharam Palace, Hughes Rd., Bombay 400007.
Light Galore, Congress Bldg., 574, Mount Rd., Madras 600006.
Litolier, Kemp's Corner, Bombay 400036.
Marketing (Aids) India, Post Box 3565, New Delhi 110024.

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Kakati Karshak Inds. Pvt. Ltd., Nacharam Ind. Area, Hyderabad 501507.

Delhi

Chemical Construction Co. Pvt. Ltd., 29, M. G. Marg, Lajpat Nagar, IV, New Delhi 110024.
Kinetics Technology India Ltd., Meghdoot, 5th Flr., Nehru Place, New Delhi 110019.
Sethi Engg. Works, 2777, Z. Singh Rd., Delhi 110006.

Gujarat

Anup Engg. Ltd., Anil Starch's Premises, Anil Rd., Ahmedabad 380002.
Cadmach Machinery Co., Ghodasar, Ahmedabad 380008.
Chemtex Engg. Enterprise, L-17, GIDC Ind. Estate, Odhav, Ahmedabad 382415.
Pragnesh Engg. Pvt. Ltd., 178, GIDC Estate, Ankleshwar 393002.
Shreno Ltd., Alembic Rd., Vadodara 390003.

Madhya Pradesh

Union Carbide India Ltd., Post Box 46, Bhopal 462001.

Maharashtra

A. P. V. Equipment Co. Ltd., 32, Nicol Rd., Ballard Estate, Bombay 400038.
Andrew Yule & Co. Ltd., Engg. Div., 32, Nicol Rd., Ballard Estate, Bombay 400038.
B. R. Ind., 164-5, A to Z Ind. Estate, Fergusson Rd., Bombay 400013.
Bermaco Mechanical Engrs., 3, Mercantile Apartment, Opp. Basant Studio, Chembur, Bombay 400074.
Blanden Cole & Co. Pvt. Ltd., Rang Udyan, Sitladevi Temple Rd., Bombay 400016.
Bird & Co. Pvt. Ltd., United Bank of India Bldg., 25, Sir P. Mehta Rd., Bombay 400001.
Chemical Development & Construction Corpn., G. B. Rd., Thane 400607.
Chemtex Engineering of India Ltd., Nirlon House, 254B, Dr. A. B. Rd., Bombay 400025.
Consolidated Chemequip (Mfr.) Corpn., 1, Sequeira Villa, Vidyanagari Mrg., Univ. Campus, Kalina, Bombay 400098.
Control Instruments, Unit No. G-25, Shalimar Indl. Estate, Matunga, Bombay 400019.
D. Munchharam & Sons, Falkland Rd., 7th Cross Lane, Bombay 400004.
Dalal Engineering Pvt. Ltd., 36-37, Jolly Maker Chambers II, Nariman Point, Bombay 400021.
Dalco Engineering Pvt. Ltd., H. A. Ltd. Compound, Pimpri, Pune 411018.
Dave Trading Co., 12/6, Nagdevi St., Bombay 400003.
Diamond Chemical Pumps Co., Wadia Bldg., R. No. 30, 9-B, Cawasji Patel St., Bombay 400001.
Doshi Engg. Works, Village Rd., Andheri (E), Bombay 400069.
Emmes Metals Pvt. Ltd., 147, Govt. Indl. Estate, Kandivli West, Bombay 400067.
Exomet Plastics Ltd., 401, Kakad Chambers, 132, Dr. A. Besant Rd., Bombay 400018.
Falls Ind. In-Corpn., 502, Jolly Bhavan No. 1, 10, New Marine Lines, Bombay 400020.
Frigmaires Engrs., Bharat House, 104B, Bombay Samachar Mrg., Bombay 400023.
G. R. Engg. Works Pvt. Ltd., Poonam Chambers, Shivsagar Estate, Dr. A. Besant Rd., Bombay 400018.
Giri Inds., B/15-18, New Empire Indl. Estate, J. B. Nagar, Andheri East, Bombay 400059.
Gladwyn Engg. Co., Ind. Estate, Shastri Marg, Bombay 400077.
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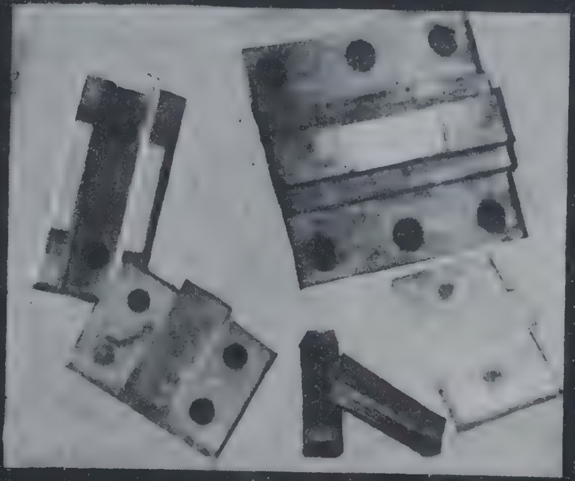
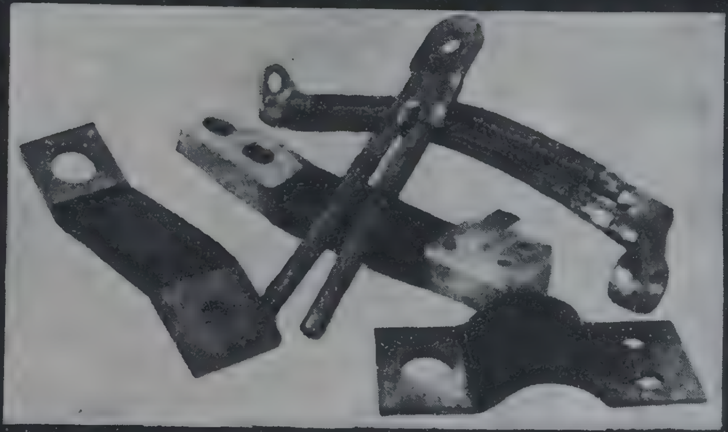
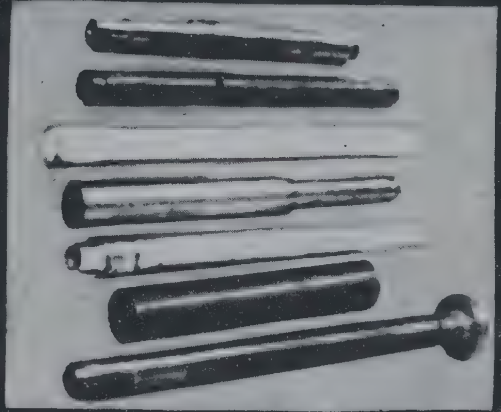


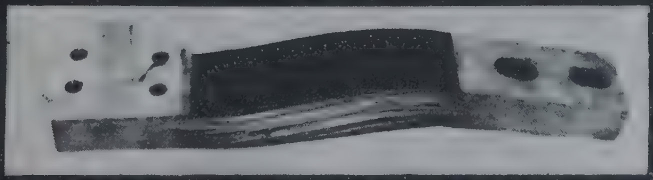
COPPER FIXED/MOVING AND PRE-CONTACTS WITH SILVER ALLOY TIPS



COPPER FLEXIBLE CONNECTORS FOR BUS BARS AND RECTIFIERS



COPPER ANODE STEMS FOR GRAPHITE & METAL ANODES



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Pioneer Engg. Co., 57, Apollo St., Bombay 400023.
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Syp Engg. Corpn., 4, Patel Indl. Estate, S. V. Rd., Dahisar East, Bombay 400068.
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Chemech Engrs. Pvt. Ltd., 3, Montieth Lane, Madras 600008.
Chemfab, 55, Edward Elliots Rd., Madras 600004.
Eswaran & Sons Engrs. Pvt. Ltd., 5-7, Second Line Beach, Madras 600001.
K. C. P. Ltd., 38, Mount Rd., Madras 600006.
Kaveri Engg. Industries Ltd., Golden Rock, Tiruchirapalli 620004. (Tamil Nadu).
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Barium Chemicals Ltd., P.O. Ramavaram 507118. Khammam Dist.
Card Chem Ind., B-12, Co-op. Ind. Estate, Balanagar, Hyderabad 500037.
Formalin And Fine Chemicals Ltd., Nacharam Ind. Area, Hyderabad 500039.
IDL Chemicals Ltd., Kukatpalli, Post Box No. 1, Sanatnagar, Hyderabad 500018.
Indian Chemical & Pharmaceutical Works, 18/2, Ind. Area, Azamabad, Hyderabad 500020.
Orgaroma India Pvt. Ltd., Toli Chowki, Hyderabad 500008.
Reechem Pvt. Ltd., 3-6-147A, Himayatnagar, Barkatpura, Hyderabad 500029.

Bihar

Cyanides & Pigments Ltd., Tisco Central Office, Jamshedpur 831001.

Delhi

Ballarpur Industries Ltd., Thapar House, 124, Janpath, New Delhi 110002.
Daurala Chemical Inds., 18, Barakhamba Rd., New Delhi 110001.
Delhi Cloth & General Mills Co. Ltd., Shriram Chemicals Divn., 1, Jhandewalan Estate, New Delhi 110055.
Gogia Chemical Inds., C-37/3, Lawrence Rd. Ind. Area, New Delhi 110035.
High Purity Chemicals Pvt. Ltd., 8/34, Ind. Area, Kirti Nagar, New Delhi 110015.
Hindustan Polymers Ltd., Naaz Bldg., 1-E, Jhandewalan Extn., New Delhi 110055.
National Chemical Ind. Pvt. Ltd., 26, Najafgarh Rd., Ind. Area, New Delhi 110015.
Navin Chemicals Mfg. & Trdg. Co. Pvt. Ltd., 2, Nizamuddin East, New Delhi 110013.
New Central Jute Mills Co. Ltd., Chemicals & Fertilisers Divn., Times House, 7, Bahadur Shah Zaffar Marg, New Delhi 110002.
Sahu Chemicals & Fertilizers, Times House, 7, B. Shah Zaffar Marg, New Delhi 110002.
Shambhu Nath & Sons Ltd., Kanchenjunga Bldg., (7th Fl.), 18, Barakhamba Rd., New Delhi 110001.
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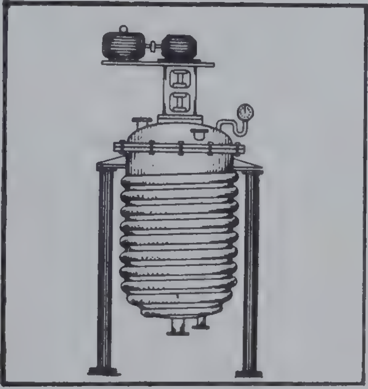

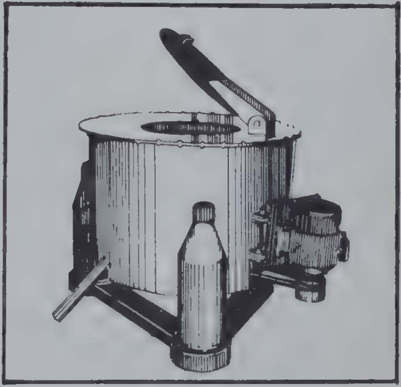

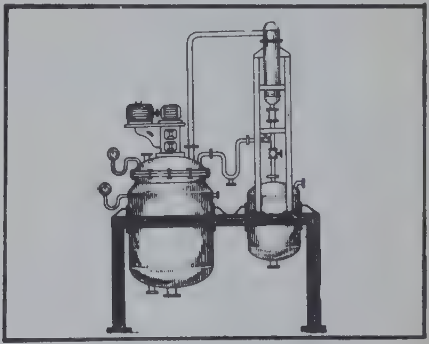

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Gujarat

Adarsh Chemicals & Fertilizers Ltd., Udhna 394210.
Alembic Chemical Works Co. Ltd., Alembic Rd., Vadodara 390003.
Anil Starch Products Ltd., Anil Rd., P.O. Railwaypura, Ahmedabad 380002.
Arat Electro Chemicals Pvt. Ltd., 311/3, Rakhial Rd., Ahmedabad 380023.
Ashahi Chemical Inds. Pvt. Ltd., 'Firdos', B. Mehta Rd., Shahibaug, Ahmedabad 380004.
Associated Chemical Co., Near Electric Sub-Station, Odhav Rd., Ahmedabad 380021.
Atic Inds. Ltd., P.O. Atul 396020, Valsad Dist.
Atul Products Ltd., P.O. Atul 396020, Valsad Dist.
B.T.X. Chemicals Pvt. Ltd., C1/B/3, Shed, Nandesari Petro-Chem. Indl. Estate, Nandesari 391346, Vadodara Dist.
Baroda Chemical Inds. Ltd., Miyagam, Dabhoi 391110, Vadodara Dist.
Bhavana Chemicals Ltd., S-623, Padra Rd., Vadodara 390001.
Cellulose Products of India Ltd., P.O. Kathwada, Ahmedabad 382430.
Cibatul Ltd., P.O. Atul 396020.
Dhrangadhra Chemical Works Ltd., Dhrangadhra 363315.
Diamines & Chemicals Ltd., 1, National Chambers, Ashram Rd., Ahmedabad 380009.
Didi Pvt. Ltd., Pankaj Soc., R.C. Rd., Vadodara 390001.
Everest Chemical Ind., 22, Vasantnagar, Maninagar, Ahmedabad 380008.
Farmson Pharmaceutical Gujarat Pvt. Ltd., Shankar Bhuvan, Sayaji Gunj, Vadodara 390005.
Gujarat Alkalies & Chemicals Ltd., P.O. Petrochemicals 391346. Vadodara Dist.
Gujchem Distillers India Ltd., National Chambers, Office Nos. 6, 7, 8, 2nd Flr., Near Deepali Theatre, Ashram Rd., Ahmedabad 380009.
Indian Petro-Chemicals Corpn. Ltd., P.O. Petrochemicals 391346. Vadodara Dist.
Jim Chemical Ind. Pvt. Ltd., Shed No. A1-9, Plot No: 272, Makarpura Ind. Estate, Vadodara 390001.
Kwizol-Chem Pvt. Ltd., A1/402, GIDC, Post Box 71, Ankleshwar 393002, Bharuch Dist.
Maize Products, P.O. Kathwada, Ahmedabad 382430.
Narbada Valley Chemical Ind. Pvt. Ltd., Poicha Rd., Rajpipla 393145.
Navsari Oil Products Pvt. Ltd., Manecklal Rd., Navsari 396005.
Newmac Ind., Nima House, Patharkuva, Relief Rd., Ahmedabad 380001.
Pab Chemicals Pvt. Ltd., Khusboo Centre, 56, Vishwas Colony, Vadodara 390005.
Raymon Glues & Chemicals, Kanstubh, 46-B, Gautam Nagar, Race Course Circle, Vadodara 390007.
Sarabhai Chemicals, Wadi Wadi, Vadodara 390007.
Sarabhai M. Chemicals Ltd., Gorwa Rd., Vadodara 390007.
Satyadev Chemicals Pvt. Ltd., Pratapnagar Rd., Vadodara 390004.
Saurashtra Chemicals, Birla Sagar, Porbandar 360576.
Suhrid Geigy Ltd., Wadi Wadi, Vadodara 390007.
Suly Chemicals, G.I.D.C., Makarpura, Vadodara 390004.
Synthad Chemicals Pvt. Ltd., Vallabh Vidyanagar 388120.
Tata Chemicals Ltd., Mithapur 361345.
Transpek Ind. Pvt. Ltd., 635, Kalali Rd., Atladara, Vadodara 390012.
White Chemicals, 158, Hariyala Plot, Atabhai Rd., Bhavnagar 364002.

Haryana

Indo Chemicals Pvt. Ltd., 24-25, Indl. Area, Bhiwani 125021.

Karnataka

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Agromore Ltd., Mysore Rd., Bangalore 560026.
Indian Vegetable Products Ltd., George Oakes Bldg., N. R. Square, Bangalore 560002.
Mangalore Chemicals & Fertilizers Ltd., 10, Kasturba Rd., Bangalore 560001.
Mysore Acetate & Chemicals Co. Ltd., Mysugar Bldg., J. Wadiyar Rd., Bangalore 560002.
Mysore Chemical Ind., C-21, Ind. Estate, Bangalore 560044.
Sonit Aromatic Chemicals Pvt. Ltd., 257/258, Peenya Indl. Area, Phase IV, Bangalore 560058.
Subhas Lime Chemicals, Omprakash, West Block Rd., Coondapoor 576201.

Kerala

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Fertilixers & Chemicals Travancore Ltd., P.O. Udyogmandal 683102.
Kerala Acids & Chemicals Ltd., VI/297, Parur Rd., Alwaye 638102.
Kode Indl. Chemicals, Indl. Estate, Aroor 688534. Alleppey Dist.
Krishna Chemicals, Post Box 5, Kuttippuram 679571. Malappuram Dist.
Periyar Chemicals Ltd., Aspinwall Bldg., Calvetty, Cochin 682001.
T. K. Chemicals Ltd., 48-54, Veli Indl. Estate, Kochuveli, Trivandrum 695021.
Tata Oil Mills Co. Ltd., No. XXXVII, 169, Tatapuram, Cochin 682014.
Techno Chemical Ind. Ltd., Oyyutti Rd., Calicut 673001.
Travancore-Cochin Chemicals Ltd., P.O. Udyogmandal 683501.
Travancore Electro Chemical Inds. Ltd., Chingavanam 683531.
Travancore Titanium Products Ltd., Kochuveli, Trivandrum 695021.

Madhya Pradesh

Gwalior Rayon & Silk Mfg. (Wvg.) Co. Ltd., P.O. Birlagram, Nagda 456331.
Synthochem, 33-A, Indl. Nagar, Indl. Estate, Indore 452002.

Maharashtra

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Ahura Chemical Products Pvt. Ltd., 84, Sion Rd., Sion East, Bombay 400022.
Albright, Morarji & Pandit Ltd., Raj Mahal, 84, V. Nariman Rd., Bombay 400020.
Amar Dye Chem Ltd., Rang Udyan, Sitladevi Temple Rd., Mahim, Bombay 400016.
Amines & Plasticisers Ltd., 'D' Bldg., Shiv Sagar Estate, Dr. A. Besant Rd., Worli, Bombay 400018.
Aquapharm Chemical Co., S-113/2, MIDC, Bhosari, Pune 411026.
Aristo Chemicals Pvt. Ltd., Post Box 16316, Bombay 400013.
Arlabs Ltd., India House, W. Hirachand Marg, Opp. G.P.O., Bombay 400001.
Ashdin Chemicals Pvt. Ltd., Nand Dham Estate Bldg, 'B', Unit 6. Marol Maroshi Rd., Bombay 400059.
Ashish Intermediates & Chemicals Pvt. Ltd., 317, Sardar V. P. Rd., Bombay 400004.
Ashok Organic Industries Pvt. Ltd., 406, Sharada Chambers, 33, New Marine Lines, Bombay 400020.
Asian Chemical Co., Chemical House, L.B.S. Marg, Thane 400601.
Asiatic Chemical Co., 703, Sharda Chambers, New Marine Lines, Bombay 400020.
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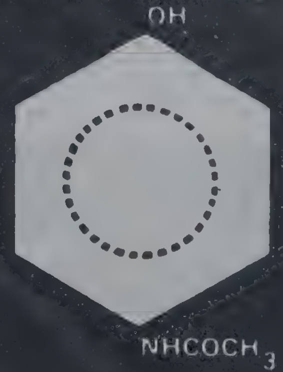
IP BP

CHEMICAL Formula

Actaminophen
4 -Hydroxyacetanilide
P -Acetylaminophenol
N -cetyl p-aminophenol
P – cetaminophenol
P – etamidophenol

STRUCTURAL Formula



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Didesu Chemicals Pvt. Ltd., 68/A, Jolly Maker Chambers No. 1, 6th Flr., N. Point, Bombay 400021.
Dipsi Chemicals Pvt. Ltd., Bank of Baroda Bldg., Bombay Samachar Mrg., Bombay 400023.
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Gandhi Parekh Investment Corpn. Ltd., Maker Bhavan No. 2, 18, New Marine Lines, Bombay 400020.
Gharda Chemicals Pvt. Ltd., 48, Hill Rd., Bandra West, Bombay 400050.
Globe Products, Anand Bhavan, S. Gandhi Mrg., Bombay 400002.
Golden Chemicals Pvt. Ltd., Chromium House, S. V. Rd., Dahisar, Bombay 400068.
Goldensun Manufg. Co., Mulchand Mansion, Princess St., Bombay 400002.
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Hiremath Chemicals Ltd., 3, Jalkiran 35, Cuffe Parade, Bombay 400005.
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Idachem Ind. Pvt. Ltd., National Insurance Bldg., 204, Dr. D. Naoroji Rd., Bombay 400001.
Ilac Ltd., Chemicals Plastics Dn., Anik Chembur, Bombay 400074.
India Carbon Ltd., D. Bldg., Shivsagar Estate, Dr. A. Besant Rd., Worli, Bombay 400018.
Indian Organic Chemicals Ltd., New Excelsior Bldg. (6th Fl.), Wallace St., Bombay 400001.
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Indo-Nippon Chemical Co. Ltd., Maker Bhavan 2, 18, New Marine Lines, Bombay 400020.
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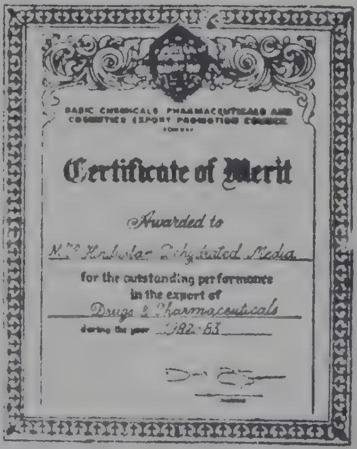

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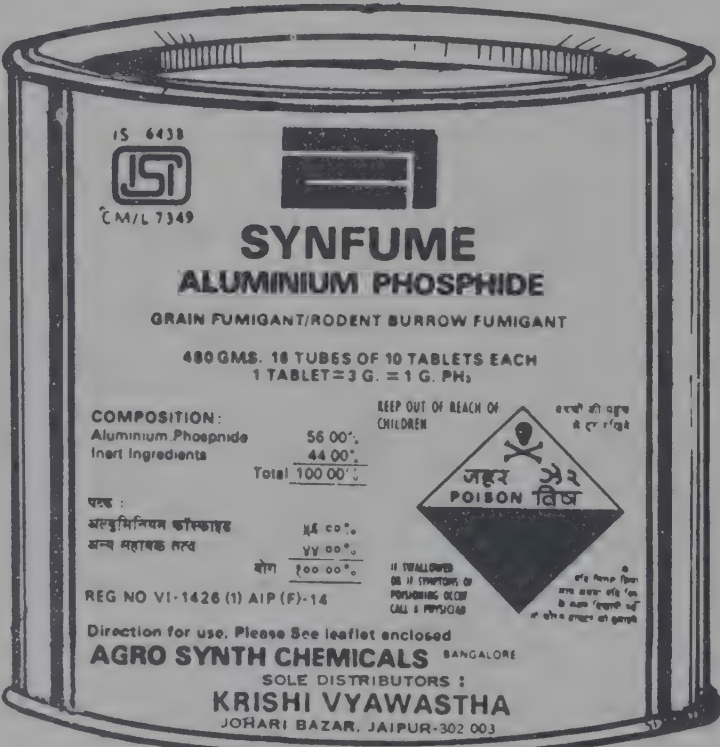
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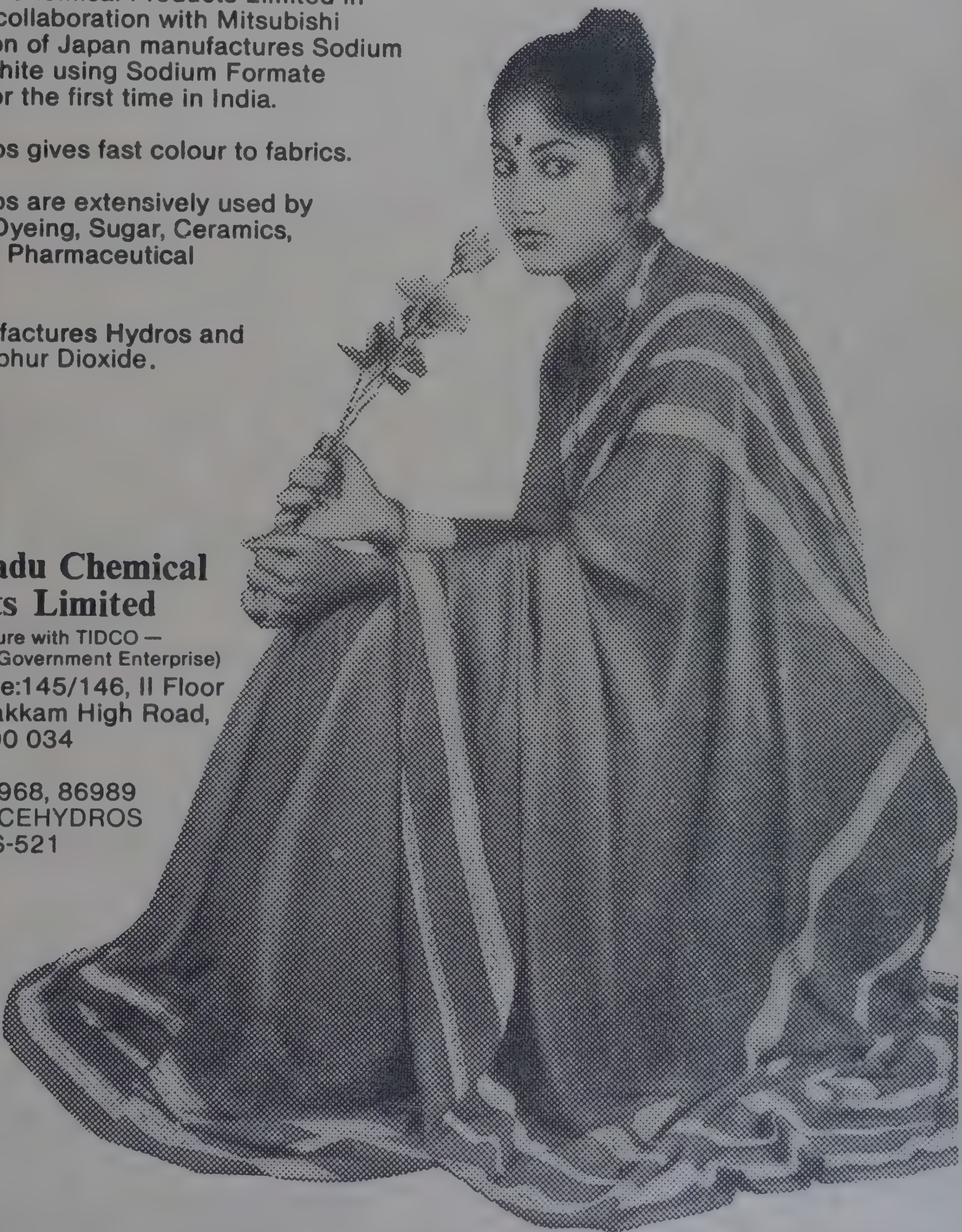

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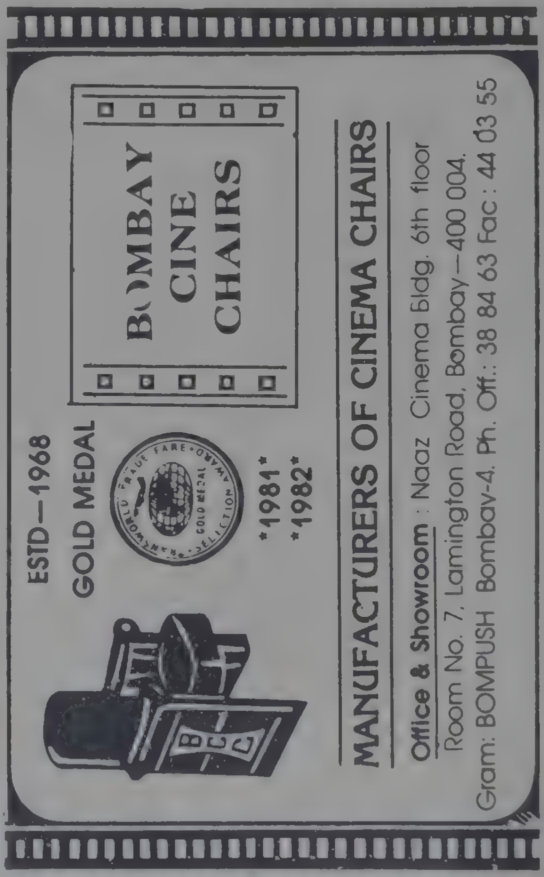

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Indian Refrigeration Corpn., Near Bhavani Saw Mill, Dhebarbhai Rd. (South), Rajkot 360002: (Gujarat).
Indo Air Inds., 49, Mun. Ind. Estate, Worli, Bombay 400018.
Industrial & Mining Equipment Co. Pvt. Ltd., 113, New Queen's Rd., Bombay 400004.
Ingersoll Rand India Pvt. Ltd., May Baker House, S. K. Ahire Marg, Bombay 400025.
Joshua & Co., 122, Great Western Bldg., 23, N. Master Road. Bombay 400023.
K. G. Khosla Compressors Ltd., 11, Prithvi Raj Rd., New Delhi 110011.
Kakati Karshak Inds. Pvt. Ltd., Nacharam Ind. Area, Hyderabad 501507.
Kay International Pvt. Ltd., 4/18, Asaf Ali Rd., New Delhi 110002.
Macshe Equipment Pvt. Ltd., 7E, Lindsay St., Calcutta 700016.
Maniraj Metal Inds., P.O., Saibaba Mission, Coimbatore 641011.
Marketing India, ITT Company Compd., Sewri Cross Rd., Bombay 400015.
Mining & Drilling Services, 4, Synagogue St., Calcutta 700001.
Oriental Enterprises, P-46A, CIT Scheme XLV, Radhabazar Lane, Calcutta 700001.
Parkeen Bros., 24, N. Master Rd., Bombay 400023.
Pragnesh Engg. Pvt. Ltd., 178, GIDC Estate, Ankleshwar 393002. (Gujarat).
Precision Fabricators & Mechanical Engrs., Zaveri Bldg., 112, Nagindas Master Rd., Bombay 400023.
Raj Tools Corpn., 50, Bibijan St., Bombay 400003.
Rolex Inds., G. T. Rd., Ghaziabad 201001. U.P.
Shree Vignesh Enterprises, 12, V. K. Iyer Rd., Madras 600028.
Shreeram & Co., Jani Estate, Ghatla Village, Chembur, Bombay 400071.
Shriram Refrigeration Ind. Ltd., 19, K. Gandhi Mrg., New Delhi 110001.
Shubh Inds., 128, Jai Gopal Industrial Estate, 510, Bhavani Shankar X Rd., Bombay 400028.
SLM-Maneklal Inds. Ltd., Mistry Bhavan, D. Vachha Rd., Bombay 400020.
SSN International Pvt. Ltd., 701-702, Akash Deep, Barakhamba Rd., New Delhi 110001.
Sunder Singh & Co. Pvt. Ltd., 1/6, Roop Nagar, Delhi 110007.
Swam Pneumatics Pvt. Ltd., C-2, Sector III, Noida 201301. Ghaziabad Dt., U.P.
Weweld Regulator Co., 33, Sethi Indl. Estate, 10-E, Suren Rd., Andheri East, Bombay 400093.

COMPUTERS

(See under Office Equipment.)

CONCRETE MIXERS & VIBRATORS

Anant Engg. Works Pvt. Ltd., Post Box No. 16241, Mazgaon, Bombay 400010.
Apollo Tubes Ltd., 730, Mount Rd., Madras 600006.
Ashok Engg. & Construction Co., 14, G. C. Avenue, Calcutta 700013.
Ashok Engg. Works, 2/6, Indl. Estate, Gorwa Rd., Vadodara 390016.
C. Comens & Sons Ltd., 103/3, Diamond Harbour Rd., Calcutta 700038.
Flex-Tool Equipment Co., 71/73, Nagdevi St., Bombay 400003.
Freyssinet Prestressed Concrete Co. Ltd., Hamilton House, J. N. Heredia Mrg., B. Estate, Bombay 400038.
International Machines Corpn., 16, Canning St., Calcutta 700001.
J. K. Mechanical Works, Plot No. H-2, MIDC Indl. Area, Satara 415003.
Jairamdas & Sons, 7937, Ranigunj, Secunderabad 500003.
Jaypee India Pvt. Ltd., 11, Clive Row, 2nd Flr., Calcutta 700001.
Killick Nixon & Co. Ltd., 31, Murzban Rd., Bombay 400001.
Kirloskar Bros. Ltd., Udyog Bhavan, Tilak Rd., Pune 411002.
M. K. Electric Works, 1580, Nai Sarak, Delhi 110006.
Overseas Business Corpn., 105, Bombay Samachar Mrg., Bombay 400023.
Rajen Electric Co., 96/207, D. Phalke Rd., Dadar, Bombay 400014.
Sayaji Iron & Engg. Co. Pvt. Ltd., Chhani Rd., Vadodara, 390002.
Sheffield Mfg. Co., 11/A, R.A. Kidwai Rd., Calcutta 700013.
Universal Engg. Corpn., E-2/27, Jhandewalan, New Delhi 110055.
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Avon Inds., E7/1, Unity Bldg., J. C. Rd., Bangalore 560002.
Homlite Inds., Sarai Misra, Jaiganj, Aligarh 202001.
New India Conduit Pipes (Regd.), 22, Sector 24, Faridabad 121006.
R.S.S.G. Conduits & Tubes Pvt. Ltd., Dahisar, Bombay 400068.
Steel Krafts, G.T. Rd., Panipat 132103 (Haryana).

CONNECTORS (RECTANGULAR)

Amphetronix Ltd., Plot 105, Bhosari Indl. Area, Pune 411206.
Bharat Bend Mfg. Co., 2790-A, Relief Rd., Kadia Kui, Ahmedabad 380001.
Bombay Burmah Trading Corpn. Ltd. (Electronics Divn.), Plot No. 2, Kanjur Village Rd., Kanjur Mrg. (East), Bombay 400078.
Cyclo Electric, Post Box 901, Madras 600020.
Gilard Electronics Pvt. Ltd., 13-16/B, Indl Estate, Kota 324007 (Rajasthan).
Hyderabad Connectronics Ltd., 1-2-412/21, Domalguda, Hyderabad 500029.
Intec Electronics, 2-A, Nungambakkam High Rd., Madras 600034.
Novelty Plastics, Dayalal Compd., S. V. Rd., Malad West, Bombay 400064.

CONSTRUCTION MACHINERY

Acme Mfg. Co. Ltd., Antop Hill, Wadala, Bombay 400037.
Acrow India Ltd., Sterling House, 16/2, Dr. A. Besant Rd., Bombay 400018.
Ambica Vijay Works, Ind. Estate, Lalbaugh, Bombay 400012.
Bachan Singh & Sons, 4080, Kaseruwalan, Paharganj, New Delhi 110055.
C. Bole & Co., 61, N. Dhuru St., Bombay 400003.
Condequip Engrs. & Consultants, Khandelwal House, Marve Rd., Malad West, Bombay 400064.
Empire Dyeing & Manufg. Co. Ltd., Garlick Engg. Div., B. Jagtap Marg, Bombay 400011.
Gammon India Ltd., Gammon House, V. Savarkar Marg, Prabhadevi, Bombay 400025.
Ingersoll Rand India Ltd., 7, Wellesley Place, Calcutta 700001.
International Machines Corpn., 16, Canning St., Calcutta 700001.
Killick Inds. Ltd., Killick House, Home St., Bombay 400001.
Lynx Machinery Ltd., 104, Ultadanga Main Rd., Calcutta 700004.
Millars Machinery Co. Pvt. Ltd., Victoria House, Victoria Rd., Bombay 400027.
Minato Shirke Concrete Machines Pvt. Ltd., 72-76, Mundhwa Indl. Estate, Pune 411036.
Nadirshaw & Bros., Silver Talkies Bldg., 10, Khetwadi Back Rd., Bombay 400004.
Sayaji Iron & Engg. Co. Pvt. Ltd., Chhani Rd., Vadodara 390002.
Speedcraft Pvt. Ltd., Layak Bhawan, Boring Rd., Patna 800001.
Sujauddin & Co., 75, N. Subhas Rd., Calcutta 700001.
Teknoworks (India), Lal Bahadur Shastri Marg, Bhandup, Bombay 400078.
Tyco (India) P. Ltd., 4-F, Neelambar Bldg., 28B, Shakespeare Sarani, Calcutta 700017.
Vibro Machines (India) Pvt. Ltd., 14, G.C. Ave., Calcutta 700013.
Vikhroli Metal Fabricators Ltd., L.B.S. Mrg., Vikhroli, Bombay 400083.
Voltas Ltd., Mining & Construction Equipment Dn., 19, J. N. Heredia Mrg., B. Estate, Bombay 400038.

CONSTRUCTION MATERIALS

Ajanta Steel Pvt. Ltd., 48, Cross Rd., Opp. Benares Rd., Belgachi 734423, Howrah Dist.
Anand Iron & Steel Ind., 11/115, Teliwara Shahdara, Delhi 110032.
Bombay Bldg. Materials Trading Co., 73, Medows St., Bombay 400023.
Celcrete, Cellular Concrete Plant, Ennore, Madras 600057.
Gobindo Sheet Metal Works & Foundry, 210, M. Gandhi Rd., Calcutta 700007.
Golden Steel Corpn. Pvt. Ltd., 64, G. Trunk Rd., Liluah 711204.
Gupta Iron & Brass Works Pvt. Ltd., 29, Najafgarh Rd., New Delhi 110015.
Nitco Construction Materials Pvt. Ltd., 26/1-C, Hosur Road, Bangalore 560029.
Siporex India Ltd., 72-76, Indl. Estate, Mundhwa, Pune 411036.
Surface Finishing Equipment Co., 5th Chopasani Rd., Jodhpur 342003.
Universal Asphalts, Shivaji Park, Bombay 400028.

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Andrew Yule & Co. Ltd., Belting Dn., 8, Clive Row, Calcutta 700001.
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Dunlop India Ltd., 57-B, Mirza Ghalib St., Calcutta 700016.
Eastern Stores & Trading Co. Pvt. Ltd., 115, Nagdevi St., Bombay 400003.
Gemini Corpn., 99, Surat St., Bombay 400009.
H. M. Commisariat & Co., Botawala Bldg., 7, Horniman Circle, Bombay 400023.
Hilton Rubbers Ltd., Hilton House, S-23, Green Park Extn., New Delhi 110016.
Industrial Equipment Syndicate, 15, Nand Deep Indl. Estate, Kondivita Rd., J. B. Nagar, Bombay 400059.
Lewis & Taylor Pvt. Ltd., Commerce House, Currimbhoy Rd., Bombay 400038.
Mercury Rubber Mills, 217, D. B. Gupta Road, New Delhi 110055.
Motilal Kaliandas & Co., 80, Nagdevi St., Bombay 400003.
Nirlon Synthetic Fibres & Chemicals Ltd., Nirlon House, 254-B, Dr. A. Besant Rd., Bombay 400025.
NTB International, A-302, Rd. No. 32, Wagle Indl. Estate, Thane 400604.
Oriental Rubber Industries Ltd., L. B. Shastri Mrg., Bhandup, Bombay 400078.
R. D. Asher Engg. Division, 10, Homi Mody St., Bombay 400023.
Serampore Belting Works Pvt. Ltd., 36, Strand Rd., Calcutta 700001.
United Rubber & Belting Industries, 5/1, Clive Row, R. No. 59, Calcutta 700001.
Universal Conveyor Beltings Ltd., Plot 10 & 11, Gurukul, Indraprastha Estate, Amarnagar, Faridabad 121003.

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Andhra Pradesh

Aluminium Inds., 5-9-92, Chapel Rd., Hyderabad 500001.

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Advance Dynamics, B-110, Mayapuri, Phase I, New Delhi 110064.
Indian Hydraulics Inds., 70, Shivaji Mkt., New Delhi 110015.
Interroll (India) Pvt. Ltd., 17, Comm. Centre, Mayapuri Indl. Area, Phase 1, New Delhi 110064.
Material Movement, B-107, Okhla Indl. Area, Phase 1, New Delhi 110020.
Mechanical Movements Pvt. Ltd., 3, N. Subhas Mrg., New Delhi 110002.
Naveen Engg. Works, 235, Okhla Indl. Estate, New Delhi 110020.
Ushamil Associates Pvt. Ltd., 37-38, Comm. Centre, East of Kailash, New Delhi 110065.
Vinar Ltd., 2/20, Ansari Rd., Daryaganj, New Delhi 110002.

Gujarat

Ahmedabad Victoria Iron Works Co. Pvt. Ltd., Dudheshwar Rd., Ahmedabad 380001.
Anup Engg. Ltd., Ghee Kantawadi, Ahmedabad 380001.
Applied Industrial Products Pvt. Ltd., Avalahalli, Anjanahalli, Bangalore 560061.
Elecon Engg. Co. Ltd., Vallabh Vidyanagar 388120.

Panchal Workshop, Station Rd., Anand 388001.
Rolcon Engg. Co. Ltd., Anand-Sojati Rd., Vallabh Vidyanagar 388120.
Sanjay Engg. Corpn., 127-128, GIDC Estate, Pandesara, P.O. Pandesara Ind. Estate 394221. Surat Dist.

Karnataka

Movers India Ltd., Basava Bhavan, High Grounds, Bangalore 560001.
Systems Mfg. Pvt. Ltd., 1A, Peenya Industrial Area, Off Tumkur Rd., Bangalore 562139.

Maharashtra

BUC Mechanical Equipments Pvt. Ltd., 119, ABC Govt. Ind. Estate, Kandivli, Bombay 400067.
Brady Morris Engg. Co. Ltd., Brady House, V. Nariman Rd., Bombay 400001.
Cobit Engg., Blue Pearl, S. Bapat Mrg., Dadar, Bombay 400028.
De Smet India Pvt. Ltd., Shree Niketan, A. Besant Rd., Bombay 400018.
Deccan Mechanical & Chemical Ind. Pvt. Ltd., 78, Bhosari Indl. Area, Pune 411206.
Dynacraft Machine Co. Pvt. Ltd., C. D. Barfiwala Marg, Andheri. Bombay 400058.
East India Engg. Works, A-31, Navyug Nivas, Bhadkamkar Marg, Bombay 400007.
Elektromag Methods, 406, Unique Ind. Estate, Off V. Savarkar Mrg., Bombay 400025.
Fibro Indl. Trading Co., Kurla-Andheri Rd., Sakinaka, Bombay 400072.
Flexsteels (Engrs.) Pvt. Ltd., 10, Homi Mody St., Bombay 400023.
Fluid Air Engg. Inds., Gaylite Housing Society, Jeewan Bhima Nagar, Bombay 400092.
Garlick & Co. Pvt. Ltd., Haines Rd., Bombay 400011.
Greaves Mid-West Engg. Co. Ltd., 1, Dr. V. B. Gandhi Mrg., Bombay 400023.
Heatex Products Pvt. Ltd., Vikas, 3rd Flr., 11, Bank St., Bombay 400023.
Indiana Engg. Works, Off M. Vasanji Rd., Marol Naka, Andheri East, Bombay 400059.
Jay Kay Steel Fabricators, Universal Founders Compound, Mograpada, Bombay 400069.
Jost's Engg. Co. Ltd., 60, Sir P. M. Rd., Bombay 400001.
K. T. Steel Ind. Pvt. Ltd., 21, Broach St., Bombay 400009.
Karyavahi Conveyor Co. Pvt. Ltd., Near Nagardas Rd., Andheri East, Bombay 400069.
Konel Corpn., 401-A, Niranjan, 99, Marine Drive, Bombay 400002.
La'Mina Pvt. Ltd., 15, Aghadi Ind. Estate, Marol, Bombay 400059.
Mac Industrial Systems, Post Box 26614, Bombay 400019.
Moldex Corpn., A/9, New Empire Indl. Estate, Kondivita Rd., Andheri East, Bombay 400059.
Mukand Iron & Steel Works Ltd., Kurla, Bombay 400070.
Pioneer Equipment Co. Pvt. Ltd., 139, N. Master Rd., Bombay 400023.
Punj Sons Pvt. Ltd., 386, V. Savarkar Mrg., Bombay 400025.
Radiant Electric & Machinery Co., C-12A, Commerce Centre, Tardeo Rd., Bombay 400034.
Saideep Electricals, D-19, Gandhi Nagar, Bombay 400063.
Shaparia Dock & Steel Co. Pvt. Ltd., Sewree Fort Rd., Bombay 400015.
Standard Materials Agencies, 45/46, Podar Chambers, S. A. Brelvi Rd., Bombay 400023.
Systems Engg., 63-D, Govt. Ind. Estate, Kandivli, Bombay 400067.
Tak Machinery Ltd., Janmabhomi Bhavan, Ghoga St., Bombay 400001.
Tata-Robins-Fraser Ltd., 24, Homi Mody St., Bombay 400023.
Testeels Ltd., 317-21, Dr. D. Naoroji Rd., Bombay 400001.
Todi Ind. Pvt. Ltd., Lower Parel, Bombay 400013.
Union Sales Corpn., Bhedwar House, 239, P. D'Mello Rd., Bombay 400001.
Vinar Ltd., 59, Apollo St., Bombay 400023.
Western Mechanical Ind. Pvt. Ltd., Bhandup Village Rd., Bombay 400078.
Wiperdrive Engg., 70, Podar Chambers, 109, Parsi Bazar St., Bombay 400001.

Orissa

Utkal Machinery Ltd., Rourkela 769001.

Tamil Nadu

Beardsell Engg., Mettur Beardsell Ltd., Bombay Mutual Bldg., N.S.C. Bose Rd., Madras 600001.
Conveyor Equipment Co. Pvt. Ltd., 3, Race Course Rd., Guindy, Madras 600032.
Conveyors (India), Ind. Estate, Madras 600058.
Southern Tool Services, 25, Saroja Mansion, MKN Rd., Madras 600032.
Vinar Ltd., 310/311, Linghi Chetty St., Madras 600001.

Uttar Pradesh

Modi Ind. Ltd., Modinagar 201201.

West Bengal

Burn and Co. Ltd., Howrah Iron Works, Howrah 711101.
Eastern Belting & Cotton Mills Pvt. Ltd., 20, N. Subhas Rd., Calcutta 700001.
Garden Reach Shipbuilders & Engineers Ltd., Garden Reach Rd., Calcutta 700024.
Gillanders Arbuthnot & Co. Ltd., A-1, Gillander House, N. Subhas Rd., Calcutta 700001.
Jessop & Co. Ltd., 63, N. Subhas Rd., Calcutta 700001.
Lynx Machinery Ltd., 104, Ultadanga Main Rd., Calcutta 700004.
Marshall Sons & Co. (India) Ltd., 75-C, Park St., Calcutta 700016.
Mechanical Handling Equipment Pvt. Ltd., 33, Chittaranjan Ave., Calcutta 700012.
New India Conveyor Co., 4, Chandni Chowk St., Calcutta 700013.
Parry & Co., Mercantile Bldg., Lall Bazar, Calcutta 700001.
Unique Mechanical Fabricators Pvt. Ltd., 123, Jessore Rd., Calcutta 700055.
Vinar Ltd., 5A, Lord Sinha Rd., Calcutta 700016.
Vishwa Engg. Works, 62A, Hazra Rd., Calcutta 700019.

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Advance Reinforced Plastics Pvt. Ltd., 1A, T.V. Industrial Estate, Behind Glaxo, Worli, Bombay 400025.
Asaifa Cooling Towers Pvt. Ltd., Opp. Home Guard Centre, Nari Seva Sadan, Ghatkopar West, Bombay 400084.
Cooling Tower Corpn., 40B, GIDC, Makarpura, Vadodara 390010.
DBR Cooling Towers Pvt. Ltd., 106, Stephen House, 4, BBD Bag, Calcutta 700001.
Jafreez Engg. Industries Pvt. Ltd., A-21, MIDC Ind. Area, Andheri East, Bombay 400093.
Jawahar Cooling Towers, Ghorapdeo, 99, Reay Rd., Bombay 400033.
Mihir Engrs. Pvt. Ltd., Commissariat Bldg., 3rd Flr., 231, Dr. D. N. Rd., Bombay 400001.
Mihir Reinforced Plastics, 17, Deshudyog Mandir, Jogeshwari East, Bombay 400060.
Multi-Tech Engineers Pvt. Ltd., Fit-well Engg. Compd., 2nd Pokhran Rd., Majiwade, Thane 400606.
Paharpur Cooling Towers Pvt. Ltd., 1-B, Judges Court Rd., Calcutta 700027.
Rameschandra & Co., 158, Reay Rd., Bombay 400010.
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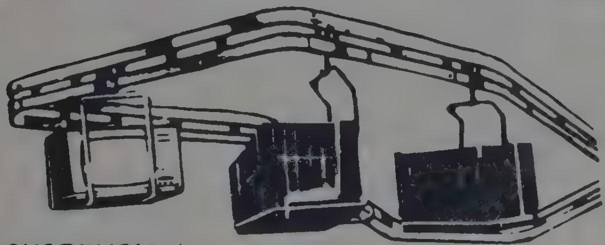

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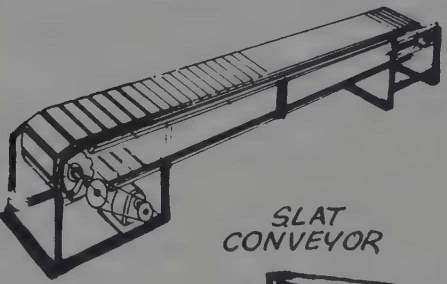

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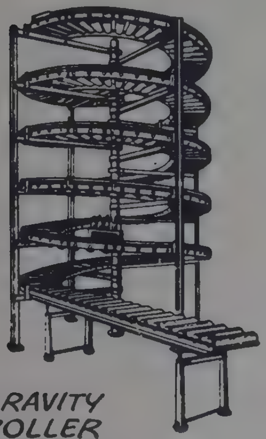

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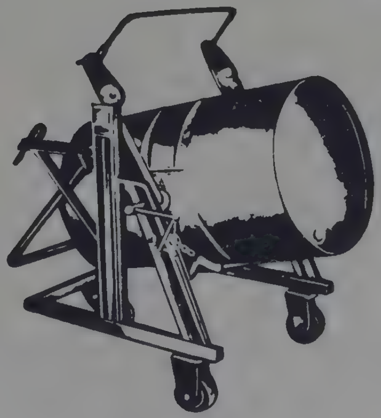

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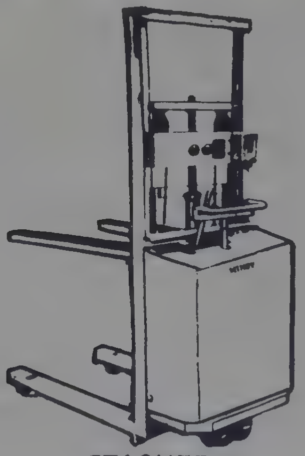

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Arpee Electricals Pvt. Ltd., Podar Chambers, S. A. Brelvi Rd., Bombay 400001.
B. B. Metal Inds., 44, Nesbit Rd., Degamwala Compd., Mazgaon, Bombay 400010.
Bhalaria Bros., 96, Nagdevi Cross Lane, Bombay 400003.
Bothra Metal & Wire Inds., Opp. Premier Automobiles, Kurla, Bombay 400070.
D. R. Traders, 13-A, Benham Hall Lane, Bombay 400004.
Dak Alloys, Plot 24, Sector A, Zone D, Mancheswar Indl. Complex, Bhubaneswar 751005. (Orissa State).
Deccan Industrial Needs, 11, Armenian St., Madras 600001.
Deepak Wire Inds., 25, Rambaug, Ratlam 457001.
Devidayal Electronics & Wires Ltd., Gupta Mills Estate, Reay Rd., Bombay 400010.
Electro Magnet Winding Wires, Sarvodaya Indl. Estate, Mahakali Rd., Andheri East, Bombay 400093.
Gadia Bros., 5/8, Amrit Sagar Talab, Tripoli Gate, Ratlam 457001. M.P.
Gorakhram Haribux, 4, Apeejay House, Ground Flr., 130, Bombay Samachar Mrg., Bombay 400001.
Hina Power Products, El, 2342/2343, GIDC, Phase III. Vapi 396195. (Gujarat).
Hindustan Copper Ltd., Park Centre, 24, Park St., Calcutta 700016.
Hindustan Steel & Metal Works, Opp. ACME Indl. Estate, Behind Digvijay Cement Co., Sewri, Bombay 400015.
Indo-American Electricals Ltd., 21, Old Court House St., Calcutta 700001.
Jayant Metal Mfg. Co. Pvt. Ltd., 16, Sayani Rd., Bombay 400025.
Jyoti Wire Inds., 23A, Shah Indl. Estate, Andheri West, Bombay 400058.
Kabadi Shankarsa & Sons, 74, Rangaswamy Temple St., Bangalore 560053.
Krishna Engg. Industries, New Chhachhrauli Rd., Jagadhri 135003. (Haryana).
Madras Wire Products Ltd., 9/6, Madras Avadi Rd., Ambattur, Madras 600053.
Mardia Inds., 83, Kika St., Bombay 400004.
Matchless Wire Products, 1/19, T. R. Mudali St., Kondithope, Madras 600001.
Merchants India, Rani Baug, Rewa 486001. (M.P.).
Multimetals Ltd., Heavy Inds. Area, Kansua Rd., Kota 324003. (Rajasthan).
Mysore Wire & Metal Inds., 14th K. M., Tumkur Rd., Bangalore 560073.
Parikh Metal Inds., 88/90, 3rd Bhoiwada, Bombay 400002.
Partap Rajasthan Copper Foils & Laminates Ltd., 10, Park St., M.I. Rd., Jaipur 302001.
Prakash Metals, 4, Chintamani Bldg., 2nd Bhoiwada, Bombay 400002.
Sai Inds., Plot 7, Phase II, MIDC Ind. Area, Andheri East, Bombay 400093.
Samarath Electricals, 5/7, Picket Cross Rd., Bombay 400002.
Sati Consumers' Delight, 38/109-A, Convent Rd., Cochin 682011.
Shalimar Wires & Inds. Ltd., Non-Ferrous Dn., 27A, Camac St., Calcutta 700016.
Shantilal Hiralal & Co., 57-B, Nanubhai Desai Rd., Bombay 400004.
Southern Electromag Pvt. Ltd., 29/1367, Tripunithura Rd., Kadavanthra, Cochin 682020
Steel Appliances Mfg. Co., 97-D, Govt. Ind. Estate, Kandivli, Bombay 400067.
Supreme Conductors Ltd., Birla Mansion, 3, Dr. D. D. Sathe Mrg., Bombay 400004.
Synthetic Wire Inds., 12A, Camac St., Calcutta 700017.
Tubes India, 2, Khetwadi 7th Lane, Bombay 400004.
Vijay Industrial Works, 42/1, Strand Rd., Calcutta 700007.
Vindhya Enterprises, Post Box No. 43, Rani Baug, Rewa 486001. (M.P.).
Vishwakarma Casting Works, 175, Kika St., Bombay 400004.

CORK PRODUCTS

Avani Enterprise, A-2/104, Khajuria Nagar, Khajuria Rd., Kandivli, Bombay 400067.
Bharat Corrub Inds., 49/8, GIDC, Makarpura, Vadodara 390010.
Bharat Crown & Metal Ind., Behind India United Mills No. 5, Chinchpokli X Lane No. 2, Bombay 400027.
Cantreads Pvt. Ltd., Shakti Indl. Estate, Mangalore 575016.
Cork Industries, P.B. No. 2631, Madras 600032.
Cortica Mfg. (India) Pvt. Ltd., Avadi-Poonamallee High Rd., Kamarajnagar, Madras 600071.
Indian Cork Mills Pvt. Ltd., Saki-Vihar Rd., Powai, Bombay 400072.
New Cork Products, 84, S. Bagat Singh Rd., Bombay 400023.
Sandeep Cork Inds., Plot 451, Faridpuri Indl. Area, W. Patel Nagar, New Delhi 110008.

CORRUGATED BOX MAKING MACHINE

Hermes Group, 13/B, Bakhtawar, 229, Nariman Point, Bombay 400021.
Micro Mechanical Works, L.B.S. Mrg., Vikhroli, Bombay 400083.
Nagpal Inds., 1062, Bartan Mkt., Sadar Bazar, Delhi 110006.

CORRUGATED BOXES

Andhra Pradesh

Cartons India, D-14, IDA, Jeedimetle, Hyderabad 500854.
Hyderabad Packaging Pvt. Ltd., Ind. Estate, Moula Ali, Hyderabad 500040.
Masanto Containers Pvt. Ltd., 2-3-37, Amberpet, Hyderabad 500013.
Progressive Packaging Pvt. Ltd., B-42, Ind. Estate, Sanatnagar, Hyderabad 500018.
Sri Saibaba Packaging Ind., 6-3-905, Raj Bhavan Rd., Somaji Guda, Hyderabad 500004.
Vistas Corrugated Box Factory, 103, S. Patel Rd., Secunderabad 500003.

Delhi

Ajanta Offset & Packing Pvt. Ltd., B-95, Indl. Area, Wazirpur, New Delhi 110052.
Anil Packaging Ind., 4539, Pahari Dhira, Delhi 110006.
Capital Corrugating Ind., 15, Najafgarh Rd., New Delhi 110015.
Delhi Packaging Pvt. Ltd., 1E/9, Jhandewalan Extn., New Delhi 110055.
Everest Corrugating Ind., 3-E/6, Jhandewalan Extn., Link Rd., New Delhi 110055.
Ganesh Packaging Ind., C-514, Defence Colony, New Delhi 110003.
Lakshmi Corrugated Board & Box Inds., 18, DLF Ind. Area, Najafgarh Rd., New Delhi 110015.
Packers Products, 10/58, Indl. Area, Kirtinagar, New Delhi 110015.

Gujarat

Baroda Box Manufg. Co., Indira Nivas, Dandia Bazar, Vadodara 390001.
Creative Corrugating Inds., Ind. Area, Gorwa, Vadodara 390003.
Jayant Paper Mills, Container Division, Utran 394105, Surat Dist.
Paco Ind., R. C. Patel Ind. Estate, Akota Rd., Vadodara 390005.
Pick & Pack, 89, G. V. M. Audyojik Vasahat, Odhav Rd., Ahmedabad 380002.
Saurashtra Packaging Pvt. Ltd., Pattani Bldg., M. G. Rd., Rajkot 360001.
Yogi Packaging Ind., 18, Pratap Gunj, Vadodara 390002.

Karnataka

Everest Container Corpn., 'Everest House', 89, Ind. Suburb Yeshvantpur, Bangalore 560022.
India Packaging Products Pvt. Ltd., 5th Mile, Bellary Rd., Bangalore 560024.
Intact Box Mfg. Co., 35, Ind. Suburb, Yeshwantpur, Bangalore 560022.

Kerala

Kerala Cartons Pvt. Ltd., Sakthikulangara, Quilon 691001.

Maharashtra

Ashok Paper Box Manufg. Co., 38J. Kapreshwar Marg, S. Podar Rd., Bombay 400002.
Atul Packers, 244, Bellasis Rd., Bombay 400008.
Avadhoot Industries, Avadhoot Bhavan, M. Caves Rd., Andheri East, Bombay 400093.
Bharat Corrugating Industries, Dalmia Estate, Mulund, Bombay 400080.
Bombay Packaging Ind., Steelmade Ind. Estate, Marol Maroshi Rd., Marol, Andheri East, Bombay 400059.
Boxage 9, 10 & 13A, New Empire Indl. Estate, Kondivita Lane, Andheri Kurla Rd., J. B. Nagar, Bombay 400059.
Boxpack Paper Ind. Pvt. Ltd., 81, Bhagat Singh Rd., Bombay 400023.
Boxwell (India) Pvt. Ltd., Box House, 54, Kurla-Andheri Rd., Bombay 400070.
Boxwell Inds., C-1, Ind. Estate, Jalna 431203.
Carton Krafts, T. K. Ind. Estate, King Edward X Lane, Sewri, Bombay 400015
Elphinstone Paper Box Mfg. Co., 510, Off Ram Mandir Rd., Goregaon (W), Bombay 400062.
Eskay Paper Products, 71, Nahur, Opp. Hoechst Pharmaceuticals, LBS Mrg., Mulund West, Bombay 400080.
Everest Packaging Corpn., 25, Mahal Ind. Estate, Mahakali Rd., Andheri (East), Bombay 400093.
Hind Paper Box Mfg. Co., Ishwar Bhawan, A Rd., Churchgate, Bombay 400020.
Hindustan Packing Ind., Kurla-Andheri Rd., Near Saphed Bridge, Bombay 400072.
India Corrugating Ind. Pvt. Ltd., 37-A, Parel Cross Lane, Chinchpokli, Bombay 400012.
IPCO Packaging Pvt. Ltd., Elphinstone Mills (Leather Div.) Comp., Delisle Rd., Bombay 400013
Jayant Paper Box Pvt. Ltd., 205, Kakad Chambers, 132, Dr. A. Besant Rd., Worli, Bombay 400018.
Jaydip Paper Box Factory, Tardeo Bldg., Tardeo Circle, Bombay 400034.
Krishna Box Factory, 37(II) MIDC, Central Rd., Andheri (E), Bombay 400093.
National Corrugating & Allied Inds., 17/18, Shah Ind. Estate, Deonar, Bombay 400088.
Packfine Corrugating Ind., 7, Sadhana Ind. Estate, Oshiwara, Jogeshwari, Bombay 400060.
Paper Corrugation & Packaging Pvt. Ltd., 74-B, Govt. Ind. Estate, Kandivli (West), Bombay 400067.
Paradise Paper Products, Mahendra Ind. Estate, Rd. No. 29, Plot No. 109-D, Sion (East), Bombay 400022.
Poly-Cone Paper Pvt. Ltd., 213, Udyog Mandir, 7/c, Pitamber Lane, Mahim, Bombay 400016.
SB Cardocrafts, 15, Bombay Talkies Comp., Malad (West), Bombay 400064.
Saurashtra Packaging Service, 606, Churchgate Chambers, 5, New Marine Lines, Bombay 400020.
Saurashtra Paper Box Mfg., 113, J. Maharaj Lane, 3rd Bhoiwada, Bombay 400002.
Standard Box Ind., Shreeniwas House, Waudby Rd., Bombay 400001.
United Paper Ind., 9/3, Udyognagar Ind. Estate, S. Vivekanand Rd., Goregaon (West), Bombay 400062.
Zenith Paper Box Mfg. Co., 98, Bara Imam Rd., Bombay 400003.

Punjab

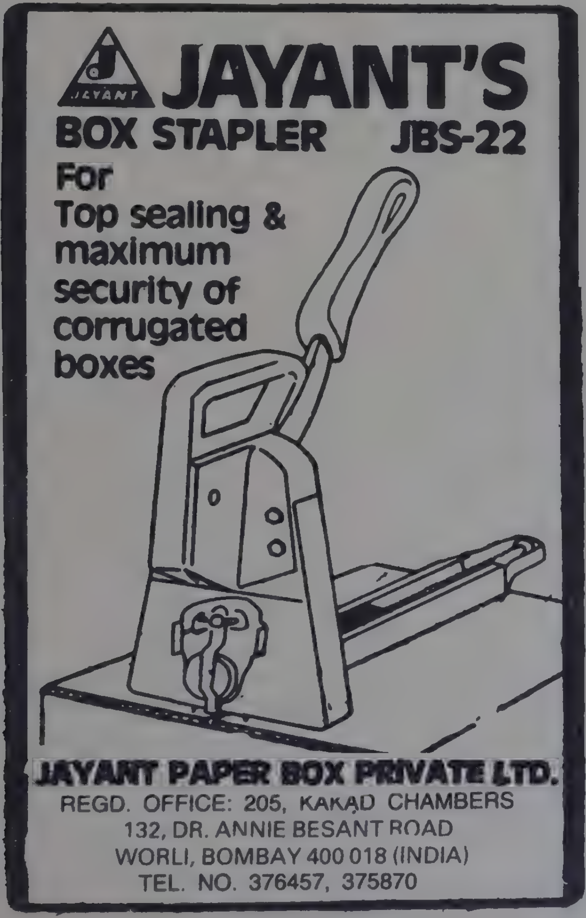
Leader Paper Processing Pvt. Ltd., E-11, Indl. Town, Jullundur 144001.

Tamil Nadu

Chettiar Ind. Corpn., G-4, Vyasarpadi Co-op. Ind. Estate, Madras 600039.
Madras Paper Convertors & Ind., 3, T. Chetty St., Madras 600001.
Minerva Packaging Products, 1065/A, Tiruvottiyur High Rd., Madras 600019.
Mount Packaging Corpn, 1/12, Vyasarpadi Co-op. Ind. Estate, Madras 600039.
Shivari Packaging Inds., 5, Seventh Cross, Indranagar, Madras 600020.
Siva Packaging Ind., B-1, Ind. Estate, Ambattur, Madras 600058.

West Bengal

Arun Corrugating & Packaging Inds., 36, Brabourne Rd., Calcutta 700001.
B. Ghosh & Co. Pvt. Ltd., 29, Mission Row Extn., Calcutta 700013.
Bengal Box Mfg. Co., 4, R. K. Chatterjee Rd., Cossipore, Calcutta 700002.
British Packaging Ind., 3, Portuguese Church St., Calcutta 700001.
Card Board Box Manufg. Co., 41, Chowringhee Rd., Calcutta 700016.
Card Board Box Mfg. Co., 41, Chowringhee Rd., Calcutta 700016.
Card Board Products, 7A, Lower Circular Rd., Calcutta 700017.
Central Card Board Box Mfg. Co., 25, Dr. K. Bose St., Calcutta 700009.
Eastern India Box Factory, 1, Chitpore Ghat Lane, Cossipore, Calcutta 700002.
Kajaria Chemi-Paper Pvt. Ltd., 28, Amratolla St., Calcutta 700001.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National Paper Processing Co., 23/32, Chanditala Main Rd., Calcutta 700053.
Sunrise Packaging Co., 196/C, Chittaranjan Ave., Calcutta 700007.
Union Packaging Industries, 1, Transport Depot Rd., Calcutta 700027.
United Paper Products, 35A, Muraripukara Rd., Calcutta 700004.

COSMETICS & TOILETRIES

Akay Cosmetics, Poonam Chambers, Shivsagar Estate, G Block, Dr. A. B. Rd., Bombay 400018.
Balsara Hygiene Products Ltd., 12-A, Jorawar Bhuvan, M. Karve Rd., Bombay 400020.
Belfry Conmerx (India) Pvt. Ltd., B-6/1, Comml. Centre, Safdarjung Enclave, New Delhi 110029.
Bengal Chemicals & Pharmaceutical Works, 6, Ganesh Chandra Avenue, Calcutta 700013.
Burleigh & Johnson Pvt. Ltd., 27/11, Navjivan Bldg., No.3, Lamington Rd., Bombay 400008.
Burroughs Welcome & Co. (India) Pvt. Ltd., 16, Bank St., Bombay. 400023.
Ciba of India Ltd., 14, J. Tata Rd., Bombay 400020.
Colgate Palmolive (India) Ltd., Steelcrete House, D. Vachha Rd., Bombay 400020.
E. S. Patanwala Pvt. Ltd., 182-84, Abdul Rehman St., Bombay 400003.
Geoffrey Manners & Co. Ltd., Magnet House, Dougall Rd., B. Estate, Bombay 400038.
Glaxo Laboratories (India) Ltd., Dr. A. Besant Rd., Worli, Bombay 400018.
Herby International, A-60, N.D.S.E. Part II, New Delhi 110049.
Hindustan Perfumes, Rajagopala Mandiram, Mullakkal, Alleppey 688001. (Kerala).
Hindusthan Chemicals, 14/5, S. Chatterji St., Calcutta 700007.
Johnson & Johnson Ltd., 30, Forjett St., Bombay 400026.
Kislin Cosmetics (Regd.), 1/91, Rajindar Nagar, New Delhi 110060.
Lakme Ltd., Bombay House, Homi Mody St., Bombay 400023.
Pond's (India) Ltd., 26, Commander-in-Chief Rd., Madras 600008.
Robert McLeans Cosmetics Pvt. Ltd., 27-B, Camac St., Calcutta 700016.
Sharmeela Products, Post Box 6, Bangalore 560051.
Shingar Cosmetics Pvt. Ltd., Shyamkamal Bldg., 102, 'C' Block, Agarwal Mkt., Tejpal Rd., Vile Parle, Bombay 400057.
Sunrise Soaps & Chemicals Pvt. Ltd., Galaxy Commercial Centre, Jawahar Rd., Rajkot 360001.
Swastik Oil Mills, 13, W. Hirachand Marg, Bombay 400038.
T.S.R. & Co., Ramapuram, Madras 600089.
(Also see under Soap & Toiletries).

COUPLINGS (FLEXIBLES)

Albro Trading Co., 42, Bhajipala Lane, Bombay 400003.
Alliance Engg. Co., 97, D. Phalke Rd., Bombay 400014.
Ashton Green & Co., Sir Vithaldas Chambers, Apollo St., Bombay 400023.
Beama Mfrs. Pvt. Ltd., A-8, Ambattur Indl. Estate, Madras 600058.
Duplex Engg. Works, 232, Acharya Commercial Centre, Chembur, Bombay 400074.
ESBI Inds., 23-A, Netaji Subhas Rd., Calcutta 700001.
Fenner (India) Ltd., 19/21, Manordas St., Bombay 400001.
GBM Agencies Pvt. Ltd., Camac Court, 25, Camac St., Calcutta 700016.
Hoist-O-Mech Ltd., 2nd Pokhran Rd., Thane 400601.
Kamini Textile Stores, 21, Parekh Niwas, 1/3, Gazdar St., Chira Bazar, Bombay 400002.
Kapsek Engrs. Pvt. Ld., B-3/1 & 4, Kidderpore Indl. Estate, Calcutta 700088.
Mark-AEC Inds. Pvt. Ltd., 71, Ganesh Ch. Ave., Calcutta 700013.
Mark Electriks, Plot No. 15, Gultekdi Ind. Estate, Pune 411009.
Nanda Mfg. Co., 10, Phears Lane, Calcutta 700012.
New Allenbury Works, 52, Hazra Rd., Calcutta 700019.
Nu-Tech-Engg. Corpn., Bhosari Indl. Estate, MIDC, Pune 411026.
P. Ratilal & Co., 43, Dhanji St., Bombay 400003.
Pembril Fluidrive Ltd., G-56/57, MIDC Area, Aurangabad 431001. (Maharashtra).
R. K. Engrs., 14, HB 8 Complex, Barkatpura, Hyderabad 500027.
RSV Agencies, 103, Gundecha Chambers, 18, N. Master Rd., Bombay 400023.
Rathi Engg, Works, 27, Shankerseth Rd., Pune 411037
Shalimar Steel Works Pvt. Ltd., 53, Netaji Subhas Rd., Calcutta 700001.
Standard Materials Agencies, 45/46, Podar Chambers, S. A. Brelvi Rd., Bombay 400023.
Steel Star Inds. (Regd.), Plot A-2, Gali No. 4, New Rohtak Rd. New Delhi 110005.
Uniflex Corpn., 8-17, Partap Mkt., Jangpura B, New Delhi 110014.
Wellman Incandescent India Ltd., 8, Ho Chi Minh Sarani, Calcutta 700071.

CRANES & CRANE COMPONENTS

Babbar Wreckers, 75, Rani Jhansi Rd., New Delhi 110055.
Bharat Inds. & Commercial Corpn., Tower House, Chowringhee Sqr., Calcutta 700069.
Dehati Engg. Works, 15, Najafgarh Rd., New Delhi 110015.
Garlick Engg., 414, S. Bapat Mrg., Bombay 400013.
Heavy Forgings & Allied Ind., 25, 7th floor, Room No. 771, Strand Rd., Calcutta 700001.
Jashvant C. Shah & Co., Bharati Nivas, Block 6, 1st Flr., Besant Rd., Santacruz West, Bombay 400054.
Jessop & Co. Ltd., 63, N. Subhas Rd., Calcutta 700001.
Khandelwal Mfg. Corpn. Pvt. Ltd., Khandelwal Nagar, Bombay 400078.
Marshall, Sons & Co. India Ltd., 8, Haddows Rd., Madras 600006.
Mechanical Machinery Makers Pvt. Ltd., 67, Ekdalia Rd., Calcutta 700019.
Shirke Construction Equipments Pvt. Ltd., 72-76, Mundhwa, Pune 411036.
Tractors India Ltd., 53, Nariman Bhavan, N. Point, Bombay 400021.
Unicon Technology International Pvt. Ltd., C-6, Greater Kailash Enclave II, New Delhi 110048.
Utkal Machinery Ltd., Kansbahal 770034, Sundargarh Dist. (Orissa).
Western Mechanical Ind. Pvt. Ltd., Industry Manor, Near Century Bazar, Bombay 400025.
WMI Cranes Ltd., Bhandup Village Rd., Bhandup, Bombay 400078.

CRASH HELMETS

Allibhai Premji Tyrewala, Near Apsara Cinema, Bombay 400007.
Cama Motors Ltd., Lal Darwaja, Ahmedabad 380001.
Concord Arai Pvt. Ltd., 26, J. Nehru Rd., Calcutta 700013.
Everlast Fibre Glass Products Pvt. Ltd., 5, Residency Rd., Bangalore 560025.
Gadgets India, Sector 27-A, Faridabad 121002. (Haryana).
Lightcraft Corpn., 68-II, Marol Indl. Area, Andheri (E), Bombay 400093.
Mazdas India, 33, Church St., Bangalore 560001.
New Steel Bird Inds., 1E/14, Jhandewalan Extn., New Delhi 110055.
Pran Uppal, C/o Verma Scooter House, Shop No. 15, Bldg. No.3, Navjivan Co-op. Housing Socy., Bombay 400008.
Technoplast International, 14, Old Madras Rd., Ulsoor, Bangalore 560008.
Udyogi Bros., 82, J. Bajaj St., Calcutta 700007.
Udyogi Plastics Pvt. Ltd., 14/2, Old China Bazar St., Calcutta 700001.
Unique Enterprises, Hebbal, Bangalore 560006.
Unique Enterprises, 1, Atladara Ind. Estate, Atladara, Vadodara 390003.

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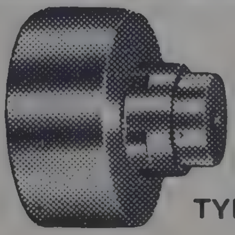

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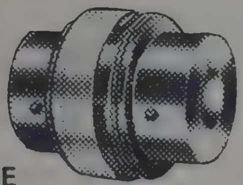

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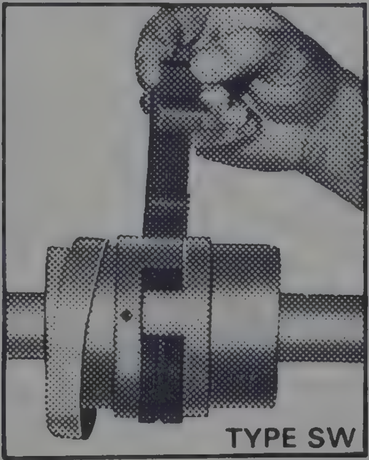

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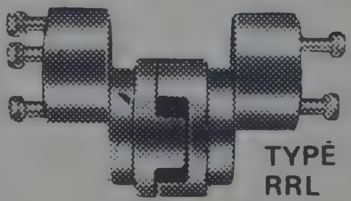

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18 Nagindas Master Road, Fort
BOMBAY 400 023

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9063 Ram-Bagh,
Old Rohtak Road,
DELHI 110 007

TAMIL NADU
EQUIPMENT FABRICATORS & TRADERS
753, Mount Road,
MADRAS 600 002

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BANGALORE 560 009

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HYDERABAD 500 001

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UDAY TRADING CORPORATION
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INDORE 452 004

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Andhra Pradesh

Deccan Porcelain & Enamel Works Ltd., Bakaram, Hyderabad 500001.

Hyderabad Potteries Ltd., 365-A, Bakaram, Hyderabad 500001.

Klayman Porcelains Ltd., 1-11-251/21, A. & B. Prakasham Nagar, Hyderabad 500016.

Lakshmi Porcelains Ltd., 6-3-680/B, Punjagutta, Hyderabad 500004.

Bihar

Reliance Firebricks & Potteries Co. Ltd., P.O. Chanch Pottery, Dhanbad Dist.

Delhi

Kashmir Ceramics Ltd., Jeevan Vihar, Parliament St., New Delhi 110001.

Paulsons Ceramic Potteries, WZ 440, Palam Enclave, Delhi 110010.

Punjab Potteries, Gurgaon Rd., New Delhi 110037.

Haryana

Rattanchand Harjasrai (Mouldings) Pvt. Ltd., 54, Indl. Area, Faridabad 121001.

(See also under 'Ceramics & Potteries' in this list)

CRUCIBLES

Andhra Graphite Product Pvt. Ltd., Visakhapatnam 530007.

Arora-Matthey Ltd., 165, N. Subhas Rd., Calcutta 700001.

Calcutta Crucible Mfg. Works, 52, Khetra Mitra Lane, Salkia, Howrah 711106.

D. K. & Bros., Post Box 8019, Bombay 400056.

Diamant Carbon & Graphite Products Ltd., 64, S. Bhagat Singh Rd., Bombay 400023.

Gopalkrishna Crucible Works, Thadithota, Rajahmundry 533103.

Hind Crucible Co., 242/2, Maniktala Rd., Calcutta 700011.

Industrial Ceramics Co., H/10, Everest, 8th Flr., Tardeo, Bombay 400034.

Jayanthi Inds., Rajahmundry 533103.

Khandelwal Crucibles & Mineral Industries, Rajahmundry 533101.

Leos Mercantile Corpn., 441, Lamington Rd., Bombay 400004.

Prakash Bros., Telianwala, Rajghat, Varanasi 221001.

Shankar & Co., 200, Chawri Bazar, Delhi 110006.

United Crucible Indl. Corpn., Rajahmundry 533103.

V. Jarton & Co., 71, N. Subhas Rd., Calcutta 700001.

(See also under 'Dealers').

DAIRY MACHINERY & EQUIPMENT

APV Engg. Co. Ltd., 2, Jessore Rd., Dum Dum, Calcutta 700028.

Armcess Engrs. Pvt. Ltd., Super 8 & 9, Indl. Estate, Guindy, Madras 600032.

Bhawani Traders, 217, Princess St., Bombay 400002.

Dairy Equipment Co., National Insurance Bldg., Dr. D.N. Rd., Bombay 400001.

Dairy Land, 119, Jogani Indl. Estate, S. Bapat Mrg., Bombay 400028.

Dairy Udyog Milk Container Ind., C/229A/230, Ghatkopar Ind. Estate, Bombay 400086.

Dany Dairy & Food Engrs. Pvt. Ltd., Post Box 115, Saharanpur 247001. U.P.

Desai & Co., A-3, Plot 1, Small Inds. Co-op. Indl. Estate, I.B. Patel Rd., Goregaon East, Bombay 400063.

G. R. Engg. Works Pvt. Ltd., G. R. House, 86, M. Vasanji Rd., Bombay 400059.

HMT, Dairy Machinery Unit, Huda Complex, Tarnaka, Secunderabad 500017.

Jyoti Ind., C-31, Ind. Estate, Sanatnagar, Hyderabad 500018.

Kishore Trdg. Corpn., Makanji Niwas, Naoroji Lane, Ghatkopar, Bombay 400086.

Larsen & Toubro Ltd., L & T House, Ballard Estate, Bombay 400038.

New Lahore Engg. Co., Munshi Niketan, A. Ali Rd., New Delhi 110002.

Panchal Workshop, Post Box 62, Anand 388001. (Gujarat).

Purushottam Traders Pvt. Ltd., A-6, Co-op. Ind. Estate, Balanagar, Hyderabad 500037.

Seven Hills Inds., 8A, Thiruvengadam Rd., Coimbatore 641002.

Swastik Safe & Iron Works Pvt. Ltd., Vallabh Vidyanagar Rd., Anand 388001. (Gujarat).

Switchgears Controls & Systems, C/B 10, Vithal Udyognagar, Vallabh Vidyanagar 388120. (Gujarat).

Unicorn Inds., 13/1, Rasulpura, Secunderabad 500003.

Venus Trading Co., Anand 388001. (Gujarat).

Vishalandra Inds., Azamabad, Hyderabad 500020.

Vulcan Laval Ltd., Dapodi, Pune 411012.

DAIRY PRODUCTS

Anand Dairy Products, C/o Ramesh Kapasi, 3-5-8, Navjivan Socy., Bombay 400008.

Dalmia Dairy Inds. Ltd., Thana Sewar, Bypass Rd., Bharatpur 321001. (Rajasthan).

Dempo Dairy Ind. Ltd., Dempo House, Campal, Panaji 403001.

Doshi Bros., Polson Rd., Anand 388001.

Foremost Dairies Ltd., Post Box No. 7662, Kandivli West, Bombay 400067.

Jayshree Milk Products Pvt. Ltd., 6 & 6A, Indl. Area, Kota 324007. (Rajasthan).

Kaira Dist. Co-op. Milk Producers Union Ltd., Anand 388001.

Milkfood Ltd., Bahadurgarh 147002. Patiala Dist. (Punjab).

Nestle's Products (I) Ltd., P.B. 427, New Delhi 110001.

Polson Ltd., 65B, Dockyard Rd., Bombay 400010.

Sri Ramakrishna Dairy, 179, Visveswarapuram, Bangalore 560004.

DETERGENTS

Aerochem Inds., Ind. Estate, Silvassa 396230 (Via Vapi).

Anikel Corpn., 5, Ram Colony, West Mambalam, Madras 600033.

Cee Dee Detergents Chemicals, 11/25, Sabun Katra, Agra 282003.

Darpana Soap Inds., 2/34-A, Baldeo Bag, Jabalpur 482002.

Detergents India, 536, Balaji Colony, Tirupathi 517502.

Detergents India Ltd., Indl. Development Area, Kodur 516101. Cuddapah Dist. (A.P.).

Dr. Gajra's Monochem Inds., 280, V. Savarkar Mrg., Bombay 400028.

Fateh Inds. & Stores, 313, Samuel St., Bombay 400003.

Haryana Detergents Ltd., Hindustan Times House, 18-20, K. Gandhi Mrg., New Delhi 110001.

Indian Dairy Entrepreneurs Agricultural Co. Ltd., Mandlik House, 2nd Flr., Mandlik Rd., Colaba, Bombay 400039.

Jaslok Gruha Udyog, 25, Modi Nivas, Telang Rd., Bombay 400019.

Karnataka Soaps & Detergents Ltd., Post Bag 5531, Bangalore 560055.

Kerala State Detergents & Chemicals Ltd., Kuttippuram 679571. (Kerala State)

Mazda Indl. Chemicals Pvt. Ltd., Mazda Inds. House, Off Haines Rd., Worli Naka, Bombay 400018.

Ojas Corpn., O/S Raipur Gate, Kankaria Rd., Ahmedabad 380022.

Oswal Agro Mills Ltd., G.T. Rd., Sherpur, Ludhiana 141003.

Rasan Detergents Pvt. Ltd., Malwa Picture Palace Bldg., Patiala 147001. (Punjab).

Romil Chemical Inds., 29, Parekh St., Bombay 400004.

Rose Hill Soaps & Chemicals (India), 6, Kutchery Rd., Madras 600004.

Sree Meenakshi Chemical Inds., Sree Meenakshi Gardens, Kizhakattalai, Madras 600043.

Stephan Chemicals Ltd., Rajpura 140401. Patiala Dist. (Punjab).

Swastik Household & Indl. Products Ltd., Post Box 362, Bombay 400038.

Tejal Chemicals, Opp. Vayda Pole, Chokhandi, Vadodara 390001.

Texspan, 9-E, Elphinstone Rd., Bombay 400012.

Ultramarine & Pigments Ltd., 8th Flr., 'B' Wing, Mittal Tower, N. Point, Bombay 400021.
Union Home Products Pvt. Ltd., Wharf St., Bunder, Mangalore 575001.
Whitco Ltd., Kalol 382721. (Gujarat).
(Also see under Soap & Toiletries).

DIESEL ENGINES, GENERATOR SETS & COMPONENTS

Andhra Pradesh

Hyderabad Iron & Steel Works Ltd., Ind. Area, Azamabad, Hyderabad 500020.
Sarada Engg. Co., B-6 & 7, Ind. Estate, Moula Ali, Hyderabad 500040.
Shriram Refrigeration Ind. Ltd., P.O. Balanagar Township, Hyderabad 500037.

Bihar

Rajiv Kamal Inds., Bailey Rd., Patna 800001.

Delhi

Atma Group of Industries, 201, Ansal Bhawan, 16, K. Gandhi Mrg., New Delhi 110001.
Kamal Engg. Inds. Pvt. Ltd., 75, Shradhanand Mrg., Delhi 110006.
Trading Engineers (International) Pvt. Ltd., C-42, Wazirpur Ind. Area, New Delhi 110052.

Gujarat

Chauhan Engg. & Foundry Works, Gondal Rd., Rajkot 360002.
Cyma Industries, Jelly Estate, Mavdi Plot, Rajkot 360004.
Deepak Industries, Opp. Saurashtra Cold Storage, Gondal Rd., V. K. Estate, Rajkot 360002.
Gujarat Forgings Pvt. Ltd., Patel Mfrs. Compd., Ajit Indl. Estate, Rajkot 360003.
Indo-German Inds., 14, Ramnik House, M. G. Rd., Rajkot 360001.
Industrial Corpn., Bapu Nagar, Jilla Garden Rd., Rajkot 360002.
Jyoti Ltd., Gorwa Rd., Vadodara 390003.
Milton Engineers, Mavdi Plot, Main Rd., Rajkot 360004.
Patel Engg. Co. (Saurashtra) Ltd., P. Box No. 510, Rajkot 360003.
Patel Manufacturers, Ajit Indl. Estate, Post Box 510, Rajkot 360003.
Rocket Engg. Corpn. (Ahmedabad), Naroda Rd., Saijpur Bogha, Ahmedabad 382345.
Sensitive Inds., Mavdi Plot, Rajkot 360004.
Sigil (India) Services Pvt. Ltd., Post Box 240, Vadodara 390001.

Maharashtra

Agra Engg. Co., 40, Bank St., Bombay 400023.
Arjansingh Khemchand, 118, Commerce House, Medows St., Bombay 400023.
Bombay Plants Pvt. Ltd., A-179 & 181, Z Lane, Rd. 16, Wagle Ind. Estate, Thane 400604.
Diesel Parts (India), 16, Gitanjali Bldg., Behind Radio Club, Colaba, Bombay 400005.
Economic Traders, Churchgate Chambers, Marine Lines, Bombay 400020.
Elmot Engg. Co. Pvt. Ltd., 2, Udyog Nagar, S. Vivekanand Rd., Goregaon West, Bombay 400062.
Elve Business Contacts Corpn., Elve Chambers, Green St., Bombay 400023.
Everest Engg. Corpn., 12, Hornby View Bldg., Gunbow St., Bombay 400001.
Gadre Inds., 2094E, Vikramnagar, Kolhapur 416005.
Geco Trdg. Corpn., 6, K. K. Mansions, 289, Nagdevi St., Bombay 400003.
Greaves Lombardini Ltd., 732A, Poona Satara Rd., Pune 411009.
H. T. C. Diesel Engines Pvt. Ltd., Beaumon Chambers, 27/33, N. Master Rd., Bombay 400023.
Industrial Controls and Appliances Pvt. Ltd., C-47/49-A, Chakala Rd., Andheri East, Bombay 400093.
International Export Import Co., 65, Mody St., Bombay 400001.
Javahar Engines Pvt. Ltd., Shrirampur 413709, Ahmednagar Dist.
K. S. Diesels Pvt. Ltd., 19-A, Doshi Marg, Bombay 400023.
Kirloskar Cummins Ltd., Kothrud, Pune 411029.
Kirloskar Oil Engines Ltd., 13, L. Kirloskar Rd., Khadki, Pune 411003.
Mather Greaves Ltd., Pune 411019.
Mercantile & Indl. Development Co. Ltd., National House, 6, Tulloch Rd., Bombay 400039.
National Metal Ind., 15/A, Parel Village Rd., Bombay 400012.
Numex Engineers, 48-B, Saki Vihar Rd., Saki Naka, Bombay 400072.
Powerica Sales & Services Pvt. Ltd., 210, Commerce House, 140, Medows St., Bombay 400023.
Premier Automobiles Ltd., L. B. Shastri Mrg., Bombay 400070.
Raj Tools Corpn., 50, Bibijan St., Bombay 400003.
Rathi Engg. Works, Near Chitnis Park, Nagpur 440002.
Ruston & Hornsby (I) Ltd., Chinchwad, Pune 411019.
Sigil India Services Pvt. Ltd., 381, Dr. D. Naoroji Rd., Bombay 400001.
Tekma Ind., 49-B, Saki Vihar Rd., Saki Naka, Bombay 400072.
United India Engg. Co., Commerce House, 140, N. Master Rd., Bombay 400023.
Vinod Bearing & Marine Corpn., 101, N. Dhuru St., Bombay 400003.

Punjab

Goetze (I) Ltd., Bahadurgarh 147021, Patiala Dist.

Rajasthan

Rajasthan Engine & Pump Inds., F-60, RIMDC Indl. Area, Bharatpur 321001.

Tamil Nadu

Balaram Engg. Works, 16, Davidson St., Madras 600001.
Fermier Inds., 33, Sembudoss St., Madras 600001.
Genlite Pvt. Ltd., 126, Thambu Chetty St., Madras 600001.
Marshall, Sons & Co. (Mfg.) Ltd., 33/34, Ambattur Ind. Estate, Madras 600058.
Red Trading Co., 40, Padariar Koil St., Madras 600001.
Simpson & Co. Ltd., 861/862, Anna Salai, Madras 600002.

Uttar Pradesh

Basant Inds., Nunhai, Agra 282006.
Indian Diesel Machines, D-2, Murli Nagar, Lucknow 226001.
Prabhat Engrs., Belanganj, Agra 252004.
Rajasthan Engine & Pump Inds., 6/321, Belanganj, Agra 282004.

West Bengal

Crawley & Ray (Founders & Engrs.) Pvt. Ltd., 32, Foreshore Rd., Howrah 711103.
Dassani Engrs. & Agencies Pvt. Ltd., 16, G. C. Ave., Calcutta 700013.
Elecdies (India), 12-B, N. Subhas Rd., Calcutta 700001.
Electrical Elements Co., 2, G. C. Ave., Calcutta 700013.
Indian National Diesel Engine Co. Ltd., 6, Little Russel St., Calcutta 700071.
Rajkissen Radhakissen Mitter & Co., 21, N. Mitter St., Calcutta 700006.
Universal Engineers & Traders, 20, N. Subhas Rd., Calcutta 700001.

DISTILLERIES & BREWERIES

Andhra Pradesh

A. P. Govt. Power Alcohol Factory, Shakarnagar 503180, Nizamabad Dist.
Artos Breweries Ltd., 3-6, Vijaya Gardens, APIIC, Kakinada 533009.
India Brewery & Distillery Pvt. Ltd., Gulmohar Ave., Rajbhavan Rd., Somajiguda, Hyderabad 500482.
K. C. P. Ltd., (Distillery), Vuyyuru 521165, Krishna Dist.
Sri Sarvaraya Sugars Ltd., Chelluru 533261, East Godavari Dist.

Delhi

Ajudhia Distillery, 1, Khan Market, New Delhi 110003.

Goa

Arlem Breweries Ltd., Mormugao Harbour 403803.

Gujarat

Alembic Chemical Works Co. Ltd., Ind. Area, Vadodara 390003.
Sardesai Brothers Ltd., P.O. Sardesai Factory 396380, Valsad Dist.

Haryana

Haryana Distillery, Yamunanagar 135001.
Karnal Distillery Co. Ltd., Karnal 132001.
Panipat Co-operative Distillery, Panipat 132103.

Himachal Pradesh

Mohan Meakin Breweries Ltd., Solan 173212.
Solan Breweries, Solan 173212.

Karnataka

Amrut Distilleries, Sampangi Tank Rd., Bangalore 560027.
Khoday Distilleries Ltd., 10, 1st Main Rd., Gandhinagar, Bangalore 560009.
Mysore Breweries Ltd., Jalahalli Camp Rd., Bangalore 560022.
United Breweries Ltd., 24, Grant Rd., Bangalore 560001.

Kerala

McDowell & Co. Ltd., Shertally 688524, Alleppey Dist.
Polsons Distillery, Post Box 6, Chalakudy 680307.
Premier Breweries Ltd., Kanjikode West 678623 (Palghat Dist.).
Travancore Sugars & Chemicals Ltd., Pamba Distillery, Tiruvalla 689101.

Madhya Pradesh

Lilasons Breweries Pvt. Ltd., Indl. Area, Govindpura, Bhopal 462023.

Maharashtra

Associated Breweries & Distilleries, Meher House, 2nd Flr., 15, Cawasji Patel St., Bombay 400001.
Doburg Lager Breweries Pvt. Ltd., 115, Bajaj Bhawan, Nariman Point, Bombay 400021.
Hindustan Breweries & Bottling Ltd., Arcadia, 7th Flr., N. Point, Bombay 400021.
Kolhapur Sugar Mills Ltd., Kasba Bavada, Kolhapur 416006.
Maharashtra Sugar Mills Ltd., Tilaknagar 413720, Ahmednagar Dist.
Mohan Rocky Springwater Breweries Ltd., 7-7B, Nesbit Rd. Mazgaon, Bombay 400010.
SKOL Breweries Ltd., Uran 400702, Raigad Dist.
Tilaknagar Distilleries & Inds. Ltd., Indl. Assurance Bldg., Churchgate, Bombay 400020.
United Breweries International, Ewart House, 22, Homi Mody St., Bombay 400023.
Vinedale Distilleries Pvt. Ltd., 202, Churchgate Chambers, 5, New Marine Lines, Bombay 400020.
Walchandnagar Ind. Ltd., Walchandnagar 413114, Pune Dist.

Orissa

East Coast Breweries & Distilleries Ltd., C/o I.D.C. of Orissa Ltd., Post Box 78, Bhubaneswar 751001.

Punjab

Bhagat Ind. Corpn. Ltd., P.O. Distillery Khasa, Amritsar 143007.
Jagatjit Ind. Ltd., P.O. Jagatjitnagar 144802, Kapurthala Dist.
Punjab Breweries Ltd., Post Box 167, Ludhiana 141001.

Rajasthan

Udaipur Distillery Co. Pvt. Ltd., Udaisagar Rd., Udaipur 313001

Tamil Nadu

Arvind Distillery Pvt. Ltd., "Meco House", 11-A/3, Mount Rd., Madras 600002.
E. I. D. Parry (India) Ltd., Dare House, Madras 600001.
McDowell & Co. Ltd., 22-23, Moore St., Madras 600001.
Mohan Breweries & Distilleries Ltd., 112, M. M. Nagar, Valsaravakkam, Madras 600087.
Sakthi Sugar Ltd., 72, Sengupta St., P.B. 960, Ramnagar, Coimbatore 641001.
Trichy Distilleries & Chemicals Ltd., Senthanipuram, Tiruchirapalli 620004.

Uttar Pradesh

Central Distillery & Chem. Works Ltd., Meerut Cantt. 250001.
Modi Distillery, Modinagar 201204.
Mohan Meakin Breweries Ltd., Mohannagar, Ghaziabad 201007.
Mohan Meakin Breweries Ltd., Lucknow Distillery, Dallygunge, Lucknow 226001.
Rampur Distillery & Chem. Co. Ltd., Rampur 244901.
Synthetics & Chemicals Ltd., Post Box 52, Bareilly 243001.

West Bengal

Carew & Co. Ltd., 6, Old Court House St., Calcutta 700001.
Bengal Distilleries Co. Pvt. Ltd., 4/5, Bankshall St., Calcutta 700001.
Ruttonjee & Co. Ltd., 6, Old Court House St., Calcutta 700001.
Shaw Wallace & Co. Ltd., 4/5, Bankshall St., Calcutta 700001.

DOMESTIC GRINDERS & MIXERS

A. N. Sales Enterprises, 3196, D. B. Gupta Rd., New Delhi 110055.
Abhisek Engg. Corpn., 2/3, Ponnavel Pillai Gardens, Aminjikarai, Madras 600029.
Ansons Electro Mechanical Works, 248-252, Abdul Rehman St., Bombay 400003.
Blumac Electricals India, Unity Bldg., Bangalore 560002.
C. Lal Electl. & Mechanical Co., Indl. Estate, Ambala City 134002. (Haryana).
Devidayal Stainless Steel Inds. Ltd., Reay Rd., Bombay 400010.
Ditz Electricals (India) Ltd., 29, Malkaganj Rd., Delhi 110007.
Elektrika Engg. Co., 23, Maharaja Tagore Rd., Calcutta 700031.
Gansons Ltd., 645, Mount Rd., Madras 600006.
GB Inds., 8/B, Ghanashyam Indl. Estate, Veera Desai Rd., Andheri West, Bombay 400056.
Home Service Appliances, United Bldgs., Patel Rd. (N), Coimbatore 641009.
Indian Sewing Machine Co. Ltd., 207, Dr. D. N. Rd., Bombay 400001.
Jyoti Electricals, P-38, India Exchange Place, Calcutta 700001.
Kohli Indl. Corpn., E-15, Nandjyot Indl. Estate, Safaid Pool, Kurla Andheri Rd., Bombay 400072.
Lektrix Engg. Inds. Pvt. Ltd., Indl. Town, Rajajinagar, Bangalore 560010.
Mangesh Enterprises, 90-B, Bhave Wadi, Gokhale Rd., Thane 400602.
Meco-Tronics Pvt. Ltd., 47, Mount Rd., Madras 600002.
Meena Equipments, Coimbatore 641009.
Meenu Equipments, Site No. 48, II Main Rd., Indl. Town, Rajajinagar, Bangalore 560044.
Metropolitan Inds., 72, Shastri Rd., Coimbatore 641009.
Neilgan Agencies No. 3, Third Lane, North Boag Rd., T. Nagar, Madras 600017.
P. Suren & Co., 109, Samapur (Badli), Delhi 110042.
Prajay Electronics, 36, Vembuli Subedar St., Madras 600016.
Presco Enterprises, B-36/5, G. T. Karnal Rd., Indl. Area, Delhi 110033.
Raj Inds., V. K. K. Menon Rd., Coimbatore 641044.
Raja Mohan Inds., 293, Crosscut Rd., Ghandhipuram, Coimbatore 641012.
Rajen Electric Co., 95/227, Dadasaheb Phalke Rd., Bombay 400014.
Rallis India Ltd., 21, Ravelin St., Bombay 400001.
Samrat Thermoplastic Inds., Plot No. 33/34, 'S' Block, Indl. Estate, Bhosari, Pune 411026.
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Star Marketing & Services Ltd., Dhanraj Mahal, C. S. M. Mrg., Bombay 400039.
Super Home Appliances, 63, Mori Rd., Mahim, Bombay 400016.
V G Panneerdas & Co., 3, K. H. Rd., Bangalore 560027.
Vummidiars, 162, Mount Rd., Madras 600002.
Western India Electricals Corpn., 23, Ansari Rd., Daryaganj, New Delhi 110002.

DOORS—FLUSH

Amar Inds., Acme Indl. Estate, Sewree (E), Bombay 400015.
Arvind Timber Products Pvt. Ltd., 501, Rewa Chambers, New Marine Lines, Bombay 400020.
Bull Door, 83/105, Victoria Rd., Mustafa Bazar, Bombay 400010.
Central India Board Products, Pathrota Rd., Itarsi 461111.
Deluxe Flush Doors Corpn., 38, Bombay Timber Mkt., Reay Rd., Bombay 400010.
Gratex Flush Doors Pvt. Ltd., 17/1, Velachery Rd., Madras 600032.
Indian Plywood Mfg. Co. Ltd., 9, Wallace St., Bombay 400001.
Kutty Flush Doors & Furniture Co. Pvt. Ltd., Poonamale High Rd., Koyambedu, Madras 600107.
Meghalaya Plywoods Ltd., Bara Bazar Rd., Shillong 793002.
Mysore Commercial Union Ltd., Yeshwantpur, Bangalore 560022.
Nagaland Forest Products Ltd., Tijit, Mon. Dist. 798621. (Nagaland).
Nandwana Saw Mill, 22, S. V. Rd., Nandwana Nagar, Goregaon (W), Bombay 400062.
Nuboard Mfg. Co. Ltd., Shahbad Rd., Rampur 244901.
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Vasai Timber Inds., Tejkiran, Tejpal Rd., V. Parle East, Bombay 400057
Vitco, Ashok Silk Mills Compd., 144, Dharavi Rd., Sion West, Bombay 400017.
Wood Art Flush Doors, Plot No. 96, Rd. No. 16, MIDC Indl Area, Andheri East, Bombay 400093.

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(See under Office Equipment).

DRILLS & DRILLING MACHINES, ETC.

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Addison & Co. Ltd., Mount Rd., Madras 600002.
Alfa Machinery Makers, G. T. Rd., Batala 143505. (Punjab).
Alfa Tools Pvt. Ltd., 178, G.I.D.C. Indl. Estate, Ankleshwar 393001. (Gujarat).
Atlas Copco (India) Ltd., M. Gandhi Memorial Bldg., Netaji Subhas Rd., Bombay 400002.
Borewell Equipment Co., Unit No. 2 & 3, Electronic Complex, Kushaiguda, Hyderabad 500762.
Dagger Master Tool Inds. Ltd., 1st Pokhran Rd., Thane 400606.
Drillco Metal Carbides Ltd., 1187/59, Jangli Maharaj Rd., Shivajinagar, Pune 411005.
Formac Engg. Ltd., Kanjur, Bombay 400078.
Guru Nanak Engg. Works (Regd.), Kahnuwan Rd., Simble, Batala 143505. (Punjab).
Hamtool Mfrs. Pvt. Ltd., 310, 14th Main Rd., Rajmahal Vilas Extn., Bangalore 560080.
Haryson Engg. Co., Plot A 420, Wagle Indl. Estate, Rd. 28, Thane 400604.

Indian Pneumatic & Rock Drills Pvt. Ltd., 1-1-151, Sardar Patel Rd., Secunderabad 500003.
Industrial & Mining Equipment Co. Pvt. Ltd., Aman Chambers, 113, New Queen's Road., Bombay 400004.
Karam Machine Tools, Kahnuwan Rd., Simble, Batala 143505. (Punjab).
Killick, Nixon & Co. Ltd., Drilling Dn., 31, Murzban Rd. Bombay 400001.
Krishna Rock Drills Pvt. Ltd., 107, Park Lane, Secunderabad 500003.
L.M.P. Precision Engg. Co. Pvt. Ltd., Post Box 7, Mahadeo Nagar, Bilimora 396321.
Larsen & Toubro Ltd., Bakhtawar, Ground Flr., N. Point, Bombay 400021.
Machine Tools & Accessories Pvt. Ltd., 10/9, Ambattur Indl. Estate, Madras 600058.
New Bharat Engg. Works (Jamnagar) Ltd., Post Box No. 131, Jamnagar 361002.
P. M. Chacko & Associates, Thambay Bldg., M. G. Rd., Cochin 682011.
Pentam Inds., 23, Krishnaswami St., Krishnapuram Colony, Madurai 625014. (Tamil Nadu).
Praga Tools Ltd., 6-6-8/32, Kavadiguda Rd., Secunderabad 500003.
Priti Engrs., 110, Medows St., Bombay 400023.
RMT Drill P. Ltd., Pollachi Rd., Coimbatore 641021.
Radha Foundry, P.O. Red Fields, Coimbatore 641018.
Revathi—CP Equipment Ltd., Coimbatore 641021.
Royal Foundry, Rly, Rd., Batala 143505. (Punjab).
Sarasvathi Inds., 499, Sivasakhti Colony, Ganapathy, Coimbatore 641006.
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Wazith Engg. & Trdg. Pvt. Ltd., No 1, II Main Rd., Ramnagar, Raja Annamalaipuram, Madras 600028.

DRUGS & PHARMACEUTICALS

Andhra Pradesh

Biochemical & Synthetic Products Ltd., Sanatnagar, Hyderabad 500018.
Biological E. Ltd., 18/1 & 3, Azamabad, Hyderabad 500020.
Chandra Pharmaceuticals, 8-2-502/1A, Rd. No. 7, Banjara Hills, Hyderabad 500034.
Hyderabad Chemicals & Pharmaceutical Works Ltd., Azamabad Ind. Area, Hyderabad 500020.
J. & J. Dechane, Residency Rd., Hyderabad 500001.
Mayo Health Care Pvt. Ltd., Samrat Complex, Saifabad, Hyderabad 500004.
Nath Laboratories, 23A, Ind. Estate Expansion, Balanagar, Hyderabad 500037.
Shetty's Pharmaceuticals & Biologicals Ltd., A-7-12, Musheerabad, Hyderabad 500020.
Standard Organics Ltd., 6/3/348, Salopia, Dwarakapuri Colony, Hyderabad 500004.
Uni-Sankyo Ltd., Plot 37, Rd. No. 10, Banjara Hills, Hyderabad 500034.
Unifods Ltd., 3-6-524, Himayatnagar, Hyderabad 500029.
Vani Chemicals & Intermediates Pvt. Ltd., 6-1-68/3, Saifabad, Hyderabad 500004.
Warner Hindustan Ltd., Warangal Rd., Uppal, Hyderabad 500039.

Assam

Drugs India (Mfg.), Dispur, Gauhati 781005.

Bihar

National Chemical & Pharmaceutical Works, 5, Kankarbagh Rd., Patna 800001.
P.C. Laboratories, Dak Bungalow Rd., Patna 800001.

Delhi

Allied Chemicals & Pharmaceuticals Pvt. Ltd., Bajaj Bldg., D. B. Gupta Rd., New Delhi 110055.
Associated Pharma, 8/29, Kirti Nagar Ind. Area, New Delhi 110015.
Dabur (Dr. S. K. Burman) Pvt. Ltd., 8/3, Asaf Ali Rd., New Delhi 110002.
Deepharma, B-1/42, Okhla Indl. Area Phase I, New Delhi 110020.
Everest Pharmaceutical Works, F-34, N.D.S.E., Part I, New Delhi 110049.
Katikeya (India) Pvt. Ltd., 4/7, D. B. Gupta Rd., Paharganj, New Delhi 110055.
La Medica Pvt. Ltd., Post Box No. 1387, Delhi 110006.
Ranbaxy Labs. Ltd., 78, Nehru Place. New Delhi 110019.
Remedies (I) Pharmaceuticals, G-102, Kirti Nagar, New Delhi 110015.
Win-Medicare Pvt. Ltd., Hemkunt Tower, 14th Flr., 98, Nehru Place, New Delhi 110019.

Goa

Bevit Pharmaceuticals Pvt. Ltd., Post Box 5, Vasco Da Gama 403802.
Carter-Wallace Ltd., Rua de Qurem, Panaji 403001.
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Gujarat

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Alembic Chemical Works Co. Ltd., Alembic Rd., Vadodara 390003.
Allied Pharmaceutical Laboratories, Ranmukteshwar Mahadev Rd., Ind. Area, Pratapnagar, Vadodara 390004.
B-Tex Ointment Mfg. Co., 20/21-D, Udyog Nagar, Navsari 396445.
Cadila Laboratories Pvt. Ltd., Ghodasar, Maninagar, Ahmedabad 380008.
Carewell Pharmaceuticals, CBI-16, GIDC Ind. Estate, Makarapura Rd., Vadodara 390009.
Cornet Pharmaceutical Pvt. Ltd., Opp. Naroda Station, Naroda 382325.
Denis Chem Lab. Ltd., C/o Bharat Vija Mills Ltd., Kalol 382721.
Didi Pvt. Ltd., Race Course Rd., Vadodara 390001.
Farmson Pharmaceutical Gujarat Pvt. Ltd., Shankar Bhuvan, Sayajiganj, Vadodara 390005.
Girish Pharmaceutical Works, Opp. Putali, Navsari Bazar, Surat 395002.
Gujarat Drugs & Chemicals Ltd., Mistry Chambers, 6th Flr., Kanpur, Ahmedabad 380001.
Gujarat Pharmaceutical & Chemical Works, Near Chamundi Mata, Asarva, Ahmedabad 380016.
Indigenous Drug Pharmaceuticals, Madhi 394340, Surat Dist.
Iris Laboratories (I), Ramol Rd., Khokhra Mehemdabad, Ahmedabad 380008.
McGaw-Ravindra Laboratories (I) Ltd., Rohit Mills Premises, Amraiwadi Rd., Ahmedabad 380008.
Mercury Laboratories Ltd., 11, Anand Socy., Race Course Rd., Vadodara 390005.
Nibin Pharmaceuticals, 74, Embassy Mkt., Navrangpura, Ahmedabad 380009.
Puro Pharma Laboratories, Pravin Nagar, Sherkhej Rd., Ahmedabad 380007.
Reckon Remedies, Chhani Rd., Vadodara 390002.
Rup Pharma, A-1, Udyognagar, Navsari 394645.
SG Chemicals & Pharmaceuticals Ltd., Dr. Vikram Sarabhai Mrg., Wadi Wadi, Vadodara 390007.
Shri Rasashram Pharma Laboratories, Gondal 360311.
Sims Laboratories, 10/2, GIDC, Vatva 382445, Ahmedabad Dist.
Stan-Rel Pvt. Ltd., Ranmukteshwar Rd., Ind. Area, Pratapnagar, Vadodara 390004.
Synbiotics Ltd., P.B. 129, Wadi Wadi, Vadodara 390007.
Unique Pharmaceutical Laboratories Pvt. Ltd., 128/1, GIDC Estate, Ankleshwar 393001.

Haryana

Curewel (I) Ltd., Plot No. 2, Sector 6, Faridabad 121001.
Ethichem Laboratories, Civil Rd., Rohtak 124001.
National Laboratories, 20th Mile Stone, Mathura Rd., Ballabhgarh 121004.

Himachal Pradesh

Abgel Drugs & Chemicals Pvt. Ltd., 12, Indl. Area, Parwanoo 173220.
Pharma Chemico Laboratories, Solan 173212.

Karnataka

Associated Drug Co. Pvt. Ltd., Sampangi Tank Rd., Bangalore 560002.
Avon Malariana Pharma, 840/14B, Jeppu Rd., Mangalore 575002.
Bangalore Pharmaceutical Research Laboratories, 163, Reservoir St., Basavangudi, Bangalore 560004.
Duff Pharmaceuticals (India) Ltd., 57, Residency Rd., Bangalore 560025.
Eros Pharma, 61, Ind. Area, Rajaji Nagar, Bangalore 560019.

Hindustan Theramids, 163, O.V.H. Rd., Basavangudi, Bangalore 560004.
International Chemical & Biological Inst. Pvt. Ltd., 7, South End Rd., Basavangudi, Bangalore 560004.
Juggat Pharma Pvt. Ltd., 43, Shankarmutt Rd., Bangalore 560004.
Madras Chemicals & Pharmaceuticals Ltd., Sampangi Tank Rd., Bangalore 560027.
Micro Labs Pvt. Ltd., 7/10, Kumara Krupa Rd., Bangalore 560001.
Mysore Ind. & Testing Laboratory Ltd., I.T.L. Bldg., Malleswaram, Bangalore 560003.

Kerala

Brothers Pharmaceuticals, Navaikulam 695603. Quilon Dist.
Cochin Pharmacol Co., P.O. Punkunnam, Trichur 680002.
Dennis Pharmaceuticals, 12/1269, Kunnukuzhi, Trivandrum 695001.
Navaratna Pharmaceutical Laboratories, Navaratna House, Manthra Rd., Cochin 682001.
Phair Laboratories, Ettumannoor 686631.
Pharmaceuticals & Chemicals (Trav.) Pvt. Ltd., Trivandrum 695001.
Puro Pharma Pvt. Ltd., W22/189, Alleppey 688001.
Trinity Pharmaceuticals (I) Pvt. Ltd., Ran Vihar, Aranattukara 680618, Trichur Dist.

Madhya Pradesh

Bharat Pharmaceuticals, 23, Yeswant Niwas Rd., Indore 452003.
Bombay Ideal Products (I), 6, Ind. Estate, Indore 452003.
Bombay Pharma Products, 122, Palsikar Colony, Indore 452002.
Ethico Drugs & Chemicals Mfg. Co., 37-A, Indl. Estate, Indore 452003.
Fine Pharmaceutical Ind., 24, Adarsh Nagar, Indore 452001.
Imphalabs, 111, Ind. Estate, Indore 452003.
Joy Pharmaceutical Laboratories, 17, Pagnispaga, Indore 452002
MAB-LAB, 82, Ravindra Nagar, Indore 452001.
Pure Pharma Products (I), 41-44, Ind. Estate, Indore 452003.
Royal Laboratories, 42, Agrasen Nagar, Bijasani Rd., Indore 452001.
Saugar Ayurvedashram Pharmacy, 304, North Raj Mohalla, Indore 452002.
Suneeta Laboratories Pvt. Ltd., 89-B/90, Ind. Estate, Indore 452003.
Vadson Laboratories, Ind. Estate, Raipur 492001.
Vostok Laboratories, 44, Marothya Bazar, Indore 452001.

Maharashtra

Abbott Laboratories (I) Pvt. Ltd., Jehangir Bldg., M. Gandhi Rd., Bombay 400023.
Acichem Laboratories, 1, Prabhat Nagar, Jogeshwari West, Bombay 400060.
Ajanta Pharma Pvt. Ltd., 31-0, MIDC Area, Chikalthana, Aurangabad 431210.
Ajintha Pharmaceuticals Ltd., Haffkine Instt. Compd., A. Donde Mrg., Parel, Bombay 400012.
Ajit Laboratories Pvt. Ltd., Ind Estate, Miraj 416410.
Alarsin Pharmaceuticals, 12, Rampart Row, Bombay 400023.
Albert David Ltd., Maker Bhavan No. II, 18, New Marine Lines, Bombay 400020.
Alkem Laboratories Pvt. Ltd., Post Box 16558, Worli, Bombay 400018.
Alma Laboratories, Fort House, Behind Handloom House, Dr. D. Naoroji Rd., Bombay 400001.
Almet Corpn. Ltd., Plot A-25, MIDC Area, Chikalthana, Aurangabad 431210.
Alta Laboratories Pvt. Ltd., 532, S. Bapat Mrg., Dadar, Bombay 400028.
Amber Research & Pharmaceutical Works, Anand Bhavan, S. Gandhi Mrg., Bombay 400002.
Amsar Pvt. Ltd., 2, Hormuz Mansion, 72, B. Desai Rd., Bombay 400026.
Anand Synthochem Pvt. Ltd., 142, Ghaswala Estate, Jogeshwari, Bombay 400060.
Anglo-French Drug Co. (Eastern) Ltd., 28, Pandit M. M. Malaviya Rd., Bombay 400034.
Anglo-Thai Corpn. Ltd., Ewart House, Homi Mody St., Bombay 400023.
AR-EX Laboratories Pvt. Ltd., 21, Sitladevi Temple Rd., Mahim, Bombay 400016.
Aries Pharmaceuticals Pvt. Ltd., 103, Rajratna Apartments, W. Express Highway, Jogeshwari West, Bombay 400060.
Aristo Pharmaceuticals Pvt. Ltd., 332, Adhyaru Ind. Estate, Sun Mill Compd., Lower Parel, Bombay 400013.
Asepticus Co., Swadeshi Market, Kalbadevi Rd., Bombay 400002.
Associated Laboratories Pvt. Ltd., 83B. Dr. A. B. Rd., Worli, Bombay 400018.
Associated Pharmaceutical Co., 20/24, Champa Gali Cross Lane, Singapuri (Dasani) Bldg., Bombay 400002.
Atul Drug House Ltd., Baldota Bhavan, 117, M. Karve Mrg., Bombay 400020.
Auxil Pharmaceuticals, 1, S. Vivekanand Rd., Andheri West Bombay 400058.
Bayer (I) Ltd., Express Towers, Nariman Point, Bombay 400020.
Beacon Pharmaceuticals, 135/136 Andheri Kurla Rd., Bombay 400069.
Beechum (I) Pvt. Ltd., Beechum House, Mahim, Bombay 400016.
Biddle Sawyer & Co. (I) Pvt. Ltd., 25, Dalal St., Bombay 400023.
Binichem Laboratories, 123/124, Kapadia Ind. Estate, Andheri-Kurla Rd., Old Ashram, Bombay 400068.
Biochem Pharmaceutical Ind., 'A' Aidun Bldg., 1st Dhobi Talao Lane, Bombay 400002.
Biological E. Ltd., Nirlon House, Dr. A. Besant Rd., Bombay 400025.
Blue Cross Laboratories Pvt. Ltd., 305, Raheja Centre, N. Point, Bombay 400021.
Boehringer-Knoll Ltd., United India Bldg., Sir P. Mehta Rd., Bombay 400001.
Bombay Drug House Pvt. Ltd., Akurli Rd., Kandivli East, Bombay 400101.
Bombay Tablet Mfg. Co., 304, S. Gandhi Marg, Bombay 400002.
Boots Co. (I) Ltd., Asian Bldg., 17, Nicol Rd., Ballard Estate, Bombay 400038.
British Pharmaceutical Laboratories, 380/382, J. Shankarsett Rd., Chira Bazar, Bombay 400002.
Broadway Laboratories (I), A/26-27, Shriram Ind. Estate, 13, G. D. Ambedkar Rd., Wadala, Bombay 400031.
Burroughs Wellcome & Co. (I) Pvt. Ltd., 16, Bank St., Bombay 400023.
C. E. Fulford (I) Pvt. Ltd., Oxford House, Apollo Bunder, Bombay 400039.
Camlin Pvt. Ltd., Pharmaceutical Dn., J. B. Nagar, Andheri, Bombay 400059.
Charak Pharmaceuticals, Shakti Mills Lane, Off Haines Rd., Bombay 400011.
Chelsea Pharmaceuticals Pvt. Ltd., Post Box No. 11213, Bombay 400020.
Chemical Ind. & Pharmaceutical Labs. Ltd., 289, Bellasis Rd., Byculla, Bombay 400008.
Chemo-Pharma Laboratories Ltd., C. S. 215, Sewree, Bombay 400015.
Chemosyn Pvt. Ltd., 38, Suren Rd., Andheri East, Bombay 400059.
Chowgule & Co. (Hind) Pvt. Ltd., India House, W. Hirachand Marg, Bombay 400001.
Chudgor & Co. Pvt. Ltd., Anand Bhavan, S. Gandhi Marg, Bombay 400002.
CIBA of India Ltd., 14, J. Tata Rd., Bombay 400020.
Comtack Laboratories, 85, Dr. A. Besant Rd., Worli, Bombay 400018.

Cynamid India Ltd., 254-D/2, Dr. A. Besant Rd., Worli, Bombay 400025.
Deltakem Pharmaceuticals, 266, Dr. A. Besant Rd., Worli, Bombay 400025.
Dulpher-Interfran Ltd., F/5, Shivsagar Estate, Dr. Annie Besant Rd., Bombay 400018.
E. Merck (I) Pvt. Ltd., Shivsagar Estate 'A', Dr A. Besant Rd., Bombay 400018.
Eagle Pharmaceutical Works, 114, Belgami Rd., Match Factory Lane, Kurla West, Bombay 400070.
Ebers Pharmaceuticals Pvt. Ltd., Dhannur, Sir P. M. Rd., Bombay 400001.
Eisen Pharmaceutical Co. (Pvt.) Ltd., 34/7, Erandwana, Pune 411004.
Ellis & Martin, Opp. G.P.O., Kothari Mansion, Bombay 400001.
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Ethix Pharmaceuticals & Chemicals (India) Pvt. Ltd., 3/815, Navjivan Socy., Lamington Rd., Bombay 400008.
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Franco Italian Co., Plot 17-A.B. Govt. Ind. Estate, Charkop Rd., Kandivli, Bombay 400067
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Hindustan Remedies, 20-A, Ajmal Rd., Vile Parle East, Bombay 400057.
Hoechst Pharmaceuticals Ltd., Hoechst House, Nariman Point, Bombay 400021.
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Indoco Remedies Ltd., 101, Neelam, 108, A. Gaffarkhan Rd., Worli, Bombay 400018.
Indo-German Alkaloids, Mahakali Rd., Andheri East, Bombay 400093.
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Kirti Works (Tablets), 98-B, T. H. Kataria Marg, P.O. Box No. 6473, Mahim, Bombay 400016.
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Leo Pharma, 49, Sidhpura Ind. Estate, S. Vivekananda Rd., Goregaon (West), Bombay 400062.
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Libra Drugs (I), 92, Mangalwar Peth, Pune 411011.
Livite Laboratories (I), Pvt. Ltd., 3/46, Tardeo Airconditioned Market, Bombay 400034.
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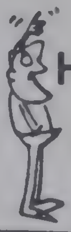

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National Pharmaceuticals, 17/17, Patel House, C. Patel St., Bombay 400001.
Neil Pharmaceuticals, D-4, Commerce Centre, Tardeo Rd., Bombay 400034.
Neo Pharma Pvt. Ltd., Kasturi Bldg., J. Tata Rd., Bombay 400020.
Nicholas Laboratories India Ltd., Deonar, Bombay 400088.
Nitson Laboratories, 1003, Raheja Centre, 214, N. Point, Bombay 400021.
Nogi & Co. Pvt. Ltd., Suren Rd., Andheri East, Bombay 400069.
Novus Pharmaceuticals, Shreenath Ind. Estate, Mahakali Rd., Bombay 400093.
Nymph Laboratories, 164, Senapati Bapat Rd., Lower Parel, Bombay 400013.
Oriental Pharmaceutical Ind. Ltd., Tulsi Pipe Rd., Bombay 400016.
P.C.I. Pharmaceuticals Pvt. Ltd., 304, Arun Chambers, J. Dadajee Rd., Bombay 400034.
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Pharmpak Pvt. Ltd., Sion-Trombay Rd., Chembur, Bombay 400071.
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Searle India Ltd., Ralli House, 21, Raveline St., Bombay 400001.
Sigma Laboratories, 43 (South), Wadala, Bombay 400031.
Signet Pharmaceuticals, 56, Sidhpura Estate, S.V. Rd., Goregaon, Bombay 400062.
Spectrum Pharmaceuticals, A/32-33, Nand Dham Ind. Estate, Maroshi Rd., Marol, Bombay 400059.
Spencer & Co. Ltd., Spencer's House, Forjett Rd., Bombay 400036.
Standard Chemical & Pharmaceutical Co., Atlas Mills Comp., Reay Rd., Bombay 400010.
Stap Pharmaceuticals, 22, Nand-Deep Ind. Estate, Andheri-Kurla Rd., Kondivita Lane, Bombay 400069.
Sunways (I) Pvt. Ltd., Jaiprakash Rd. No. 2, Goregaon (E), Bombay 400063.
Synthiko Formulations Pvt. Ltd., Jay House, 13/14, Andheri Kurla Rd., Bombay 400059.
T. Walker's Pharmaceuticals Labs., 92/10, Navi Peth, Pune 411030.
Tata Fison Ind. Ltd. (Pharma Division), Ralli House, 21, Raveline St., Bombay 400001.
Therapeutic Pharmaceuticals, Kakad Chambers, Dr. A. Besant Rd., Bombay 400018.
Thomas Pharmaceuticals, 23, Hamam St., Bombay 400001.
Toyo Pharmaceuticals Pvt. Ltd., Post Box 7478, Jogeshwari East, Bombay 400060.
Unichem Laboratories Ltd., 4, 5 & 6, Jogeshwari Estate, S. V. Rd., Jogeshwari (West), Bombay 400060.
Unique Pharmaceutical Laboratories, 83-B & C, Dr. A. Besant Rd., Bombay 400018.
Upha Pharmaceuticals, 21/7, Win-Villa, Clare Rd., Byculla, Bombay 400008.
Vibro Pharma Pvt. Ltd., Lalwani Indl. Estate, 14, G.D. Ambedkar Rd., Wadala, Bombay 400031.
Vicco Laboratories, Jayendra Mahal, Ambedkar Rd., Bombay 400014.
Vitachem Pharmaceuticals, Wassaimul Bldg., M. Shaukatali Rd., Bombay 400007.
Walter Bushnell Pvt. Ltd., Steelcrete House, D. Vachha Rd. Bombay 400020.
Wander Ltd., Shivsagar 'A', Dr. A. Besant Rd., Worli, Bombay 400018.
Warren Pharmaceuticals Pvt. Ltd., 78-B, Govt. Ind. Estate Kandivli, Bombay 400067.
West Coast Pharmaceuticals Pvt. Ltd., West Coast House, Nr. Shiroli Octroi Naka, Kolhapur 416001.

Western India Pharmaceutical Co., 1-B, Rajdeep, 63-E, Linking Rd., Santa Cruz West, Bombay 400054.
Wockhardt Pvt. Ltd., Poonam Chambers (North Wing), 5th Flr., Dr. A.B. Rd., Bombay 400018.
Wyeth Lab. Ltd., Steelcrete House, D. Vachha Rd., Bombay 400020.

Pondicherry

Ananda Pharmaceuticals, 78, Amalathadai Noda St., Pondicherry 605001.

Punjab

Franklin Laboratories (I) Pvt. Ltd., Maharani Jhansi Rd., Ludhiana 141001.
Healone Laboratories, Medicine Mfg. Corpn. Ind. Society Ltd., College Rd., Mansa 151505.
Medico Pharmaceutical Processors, P.Box 109, Amritsar 143001.
Mehta Pharmaceuticals Pvt. Ltd., G.T. Rd., Chheharta 143105.
Unimax Laboratories, Jandiala Guru, Amritsar 143001.

Rajasthan

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Jaipur Pharmaceutical Works, 2, S.P. Ind. Estate, Jaipur South 302001.
Naptune Laboratories Pvt. Ltd., FE/8, Malaviya Indl. Area, Jaipur 302017.

Tamil Nadu

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Indo-French Pharmaceutical Co., Catholic Centres, Madras 600001.
Little's Oriental Balm & Pharmaceuticals Pvt. Ltd., 118, Broadway, Madras 600001.
Mount Mettur Pharmaceuticals Pvt. Ltd., No. 7, Thanga Pattai, Thiruvanmiyur, Madras 600041.
Orient Pharma Pvt. Ltd., Old Trunk Rd., Pallavaram, Madras 600043.
Pharmaceutical Co. of India, 13, Manikeshwari Rd., Kilpauk, Madras 600010.
Retort Laboratories, Milk Colony Rd., Madhavaram, Madras 600060.
Solar Pharmaceutical Inds., Bypass Rd., Madurai 625016.
Spencer & Co. Ltd., 153, Mount Rd., Madras 600002.
Tablets Ltd., 366, T.H. Rd., Madras 600081.
Tamil Nadu Dadha Pharmaceuticals Ltd., Dadha Nagar, Madras 600074.
Vellore Research Laboratories, Chidambaram Nagar, Sattur 626203.
Ward, Blenkinsop & Co. (I) Ltd., 150-A/2, Mount Rd., Madras 600002.

Uttar Pradesh

Anandakar Karyalaya Pvt. Ltd., Khatrana Tola, Etawah 206001.
Arpike Pvt. Ltd., 22, A.P. Sen Rd., Lucknow 226001.
Bharat Pharma & Chemicals, A-5, 6, Indl. Estate, Hathras 204101.
Emson & Co., B-16, Ind. Estate, Meerut Rd., Ghaziabad 201001.
Flora Pharma Pvt. Ltd., Sushila Sadan, 112/212, Swaroop Nagar, Kanpur 208001.
Garga Pharma Pvt. Ltd., Talkotora Rd., Ind. Area, Lucknow 226001.
Parkar Pharm Pvt. Ltd., 84/10, Fazalganj, Kanpur 208012.
Piya Pharmaceutical Works, Mohan Nagar, Ghaziabad 201001.
Pratap Pharma Pvt. Ltd., 167, Rajpur Rd., Dehra Dun 248001.
Scientific Research Ind. (I) Pvt. Ltd., 4, Chitwapur Rd., Lucknow 226001.

West Bengal

A. J. Judah Pharmaceutical Pvt. Ltd., 34, Regent Park, Calcutta 700040.
Albert David Ltd., 15, Chittaranjan Ave., Calcutta 700072.
Amalgamated Drugs & Pharmaceutical Works Ltd., 204, Annapurna, 12-A, Lord Sinha Rd., Calcutta 700007.
Bengal Chemical & Pharmaceutical Works Ltd., 6, G. C. Ave., Calcutta 700013.
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Smith Stanistreet Pharmaceuticals Ltd., 18, Convent Rd., Calcutta 700014.
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Union Drug Co. Ltd., 182, Rai Bahadur Rd., Calcutta 700034.

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Jagadamba Ind. Corpn., 190, Rampura Marg, Delhi 110035.
National Colour Co., Tilak Bazar, Delhi 110006.

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Premier Chemicals, Chhani Rd., Vadodara 390003.
R.L.C. Corpn., C-8, Ajanta Society, Race Course Rd., Vadodara 390007.
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Amrit Chem Dye Ind., 236, Samuel St., Bombay 400003.
Anand Dyes Ind. Pvt. Ltd., 188/122, Kazi Syed St., Bombay 400003.
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Aniline Dyestuffs & Pharmaceuticals Pvt. Ltd., Mahalaxmi Chambers, 22, B. Desai Rd., Bombay 400026.
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Bharat Texdyes Ind., Mansoor Bldg., 98, S. Gandhi Marg, Bombay 400002.
Cauvery Chemicals Mfg. Co. (India), Rawal Chambers, Samuel St., Bombay 400003.
Central Dyes Products Pvt. Ltd., Indu Chambers, 349/53, Samuel St., Bombay 400003.
Chemi Dyes Manufrs., 187, Sheriff Devji St., Bombay 400003.
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Colour Chem Ltd., Ravindra Annexe, D. Vachha Rd., Bombay 400020.
Colour Industries, 265, Kalbadevi Rd., Bombay 400002.
Columbia Chemi-Colour Ind. Pvt. Ltd., 81, Dr. A. Besant Rd., Worli, Bombay 400018.
Crescent Dyes & Chemicals Ltd., Crescent House, B. Estate, Bombay 400038.
Dychem Mfg. Co. Pvt. Ltd., Navsari Chambers, Outram Rd., Bombay 400001.
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Gharda Chemicals Pvt. Ltd., 48, Hill Rd., Bandra, Bombay 400050.
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Indian Chem-Colour Ind., 313, Samuel St., Bombay 400003.
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Indian Dyestuff Inds. Ltd., Mafatlal Centre, Nariman Point Bombay 400021.
J. K. Kanth Chemicals & Dyestuff Pvt. Ltd., 5/26, Tarde Airconditioned Mkt., Bombay 400034.
Jakoven Ind., Datta Mandir Rd., Bhandup, Bombay 400078.
Jasani Colour Mfg. Co., Gaya Bldg., 87/123, Masjid Bund Rd., Bombay 400003.
Jasani Dye-Chem Ind., 264, Samuel St., Bombay 400003.
Jay Chemi-Colour Ind., 'Navjivan', 125/127, K. Syed St., Bombay 400003.
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Jeevan Products, 412, Jolly Bhavan No. 2, 7, New Marine Lines Bombay 400020.

Kaloomal Shorimal Sachdev Rangwala Pvt. Ltd., Shalimar, 216, Marine Drive, Bombay 400020.
Kuldip Colour Ind., 340, Samuel St., Bombay 400003.
Lona Inds. Pvt. Ltd., 532, Alta Bhavan, S. Bapat Mrg., Dadar, Bombay 400028.
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Mafatlal Dyes & Chemicals Ltd., Hoechst House, N. Point, Bombay 400021.
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Monarch Dyes & Chemicals, Shirin Chambers, Samuel St., Bombay 400003.
Napro Ind., Chitalsar Manpada, Thane 400607.
Naresh Ameeta Dye Chem Inds., Gold Mohar, 174, Princess St., Bombay 400002.
National Chemical & Colour Co., 267, Samuel St., Bombay 400003.
National Dyes, Bombay Mutual Chambers, 19/12, Hamam St., Bombay 400001.
Navin Ind., Indu Chambers, 349/53. Samuel St., Bombay 400003.
Organo Dyestuff Ind., 202-203, Plot No. 85-86, M. Vasanji Rd., Bombay 400059.
Oriental Chemindus Pvt. Ltd., 2/7th Flr., Tardeo Air-conditioned Mkt., Bombay 400034.
Oriental Intermediates (I), 107, Janjikar St., Bombay 400003.
Parekh Dyechem Ind. Pvt. Ltd., Mafatlal House, Backbay Recl., Bombay 400020.
Pigments & Dyestuffs Pvt. Ltd., Mon Repos, A. Bunder Rd., Colaba, Bombay 400005.
Pravin International Traders, Varjiwan Mansion, 60/62, S. Gandhi Marg, Bombay 400002.
Premier Dyes Corpn., 127, M. Gandhi Rd., Bombay 400023.
Ravi Chem Dye, 121, Atlanta, Nariman Point, Bombay 400021.
S. K. Kabbur Pvt. Ltd.,,3, Bastion Rd., Bombay 400001.
Sacrone Products, 617, Churchgate Chambers, 5, New Marine Lines, Bombay 400020.
Sahyadri Dyestuffs & Chemicals Pvt. Ltd., Mafatlal House, Backbay Reclamation, Bombay 400020.
Shankar Dyes & Chemical Ind., Sunderbaug Estate, Tulsiwara Bridge, Jogeshwari, Bombay 400060.
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Universal Dyestuff Inds. Ltd., 61/63, Kazi Syed St., Bombay 400003.
Vat Chem Ind., 6, Haresh Chambers, 313/19, Samuel St., Bombay 400003.
Vipul Dyes & Chemicals Pvt. Ltd., 339, Samuel St., Bombay 400003.
Vishnu Dye-Chem Pvt. Ltd., 915, Prasad Chambers, Roxy Cinema, Bombay 400004.
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Winsol Chemical Ind. Pvt. Ltd., Winsol House, Kurla-Andheri Rd., Kurla, Bombay 400072.

Tamil Nadu

Bhathey Dyes Inds., 169-E, Ramnad Rd., Madurai 625009.
SKC Dyestuff & Chemical Ind., 81, N. Mudali St., Madras 600001.
Vanavil Dyes & Chemicals Ltd., 735, Anna Salai, Madras 600002.

Uttar Pradesh

National Chemical & Dyes Co., D-43/22, Sadanand Bazar, Ramapura, Varanasi 221001.

West Bengal

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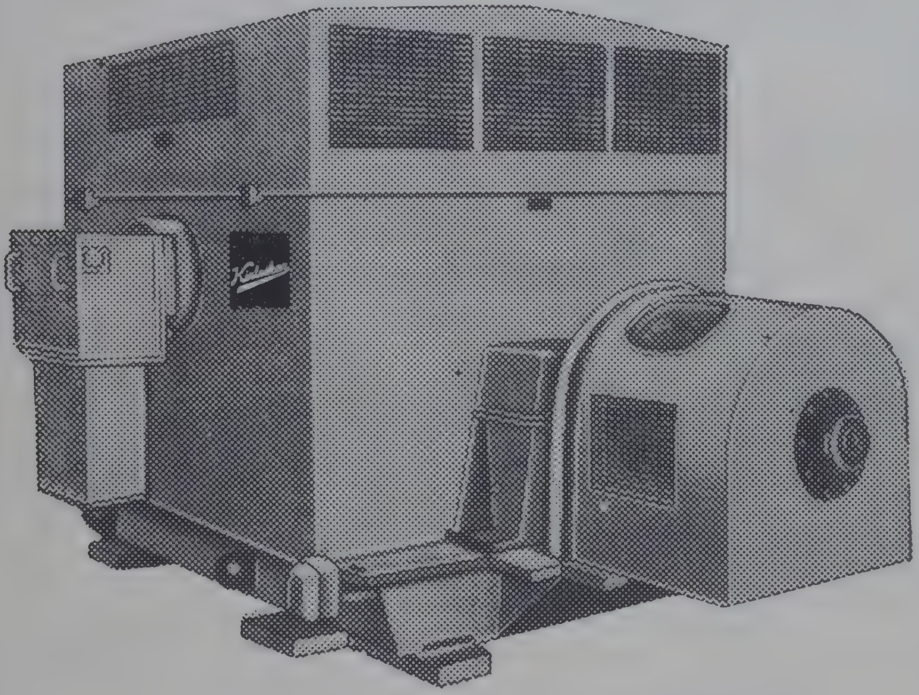

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Karnataka

Malcolm & Co., 57/A, Millers Rd., Bangalore 560046.

Metal Lamp Caps India Ltd., 2, Murphy Rd., Ulsoor, Bangalore 560008.

Mysolite Products, E-7/1, Unity Bldg., J. C. Rd., Bangalore 560002.

Mysore Lamp Works Ltd., P.B. No. 5551, Bangalore 560055.

Neon Signs (Mysore) Pvt. Ltd., 26, 1st Main Gandhinagar, Bangalore 560009

Kerala

Toshiba Anand Lamps Ltd., P.O. Athani 683585, Alwaye.

Madhya Pradesh

Kalpana Lamp Components Pvt. Ltd., 23/2, St. No. 30, Old Palasia, Indore 452001

Maharashtra

Asiatic Electric Corpn., Beaumony Chambers, 27-33, Nagindas Master Rd., Bombay 400023.

Bajaj Electricals Ltd., 45-47, Veer Nariman Rd., Bombay 400023.

Bijlee Products (I.) Pvt. Ltd., 70, Hadapsar Ind. Estate, Pune 411013.

Cielmac Pvt. Ltd., 35, Mahal Ind. Estate, Mahakali Caves Rd., Bombay 400093.

Crafts de Fluorescent, Plot 221, Goregaon Mulund Link Rd., Off L.B.S. Mrg., Bhandup, Bombay 400078.

Crompton Greaves Ltd., Kanjur, Bombay 400078.

Dhoot Brothers, Beaumon Chambers, 27-33, Nagindas Master Rd., Bombay 400023.

Ellora Art Ind., Shreeji Bhuvan, Lohar Chawl, Bombay 400002.

Fixo-Lite Inds., 305, Abdul Rehman St., Bombay 400003.

Genelec Ltd., Hindco Works, Subhash Rd., Jogeshwari East, Bombay 400060.

Glolite Electricals, Anjirwadi, Champsi Bhimji Rd., Bombay 400010.

Hindco Lighting Ind. Ltd., Hindlight House, Subash Nagar, Jogeshwari (East), Bombay 400060.

Lamp Caps and Filaments Ltd., 32, R. Dadaji St., Bombay 400001.

Markcel Pvt. Ltd., Shreeji Bhuvan, Lohar Chawl, Bombay 400002.

Optima Lamp Pvt Ltd., B-204, Paras Darshan, S. V. Rd., Borivli East, Bombay 400066.

Peico Electronics & Electricals Ltd., Shivsagar Estate, Block A, Dr. Annie Besant Rd., Bombay 400018.

Premier Lighting Ind. Pvt. Ltd., Jhaveri Bldg., 348-352, A. Rehman St., Bombay 400003.

Rakesh Bulb Industries, Raghu Prasad, 7, Taduwala Rd , Pune 411001.

Punjab

Punjab Anand Lamps Inds. Ltd., 112-113, SCO, Sector 8-C, Madhya Mrg., Chandigarh 160008.

Tamil Nadu

Electrical Fittings & Equipment (Madras) Pvt. Ltd., 99, Mount Rd., Madras 600002.

International Lighting Ind., 26, Arumugam St., Madras 600001.

Kalpana Lamp Components Pvt. Ltd., 24, S. Sreenivasa Iyengar Rd., Alwarpet, Madras 600018.

Sankar Electric Industries, Super B-4, Ind. Estate, Madurai 625001.

Zenith Lamps & Electricals Ltd., Grand Trunk Rd., Madhavaram, Madras 600060.

Uttar Pradesh

Hind Lamps Ltd., Shikohabad 205141.

Miniature Bulb Industries (India) Ltd., 131, Kanwali Rd., Dehra Dun 248001.

West Bengal

Bengal Electric Lamp Works, 4, Fairlie Place, Calcutta 700001.

Bharat Electrical Ind. Ltd., 23, R. Mukherjee Rd., Calcutta 700001.

Dazzle Products Ltd., 138, B.R.B. Basu Rd., Calcutta 700001.

Deepsun Ind. Corpn., 36, Ezra St., Calcutta 700001.

Electric Lamp Mfrs. (India) Ltd., 1, Taratolla Rd., Calcutta 700024.

General Electric Co. of India Ltd., 6, Chittaranjan Ave., Calcutta 700013.

J. K. Dey & Sons 13, Old China Bazar St., Calcutta 700001

Jayanta Electric Lamp Works, 33/4, M. Pukur Rd., Calcutta 700001

Lite Eng. Ind., 19, Pollock St., Calcutta 700001.

Mazda Lamp Company, 225D, Acharya J. C. Bose Rd., Calcutta 700020.

Unique Electrical Works, 12-B, Rai Charan Pal Lane, Calcutta 700046.

Universal Lamp Mfg. Co. Pvt. Ltd., 93-B, Ripon St., Calcutta 700016.

West Bengal Filaments & Lamps Ltd., Yule House, 8, Clive Row, Calcutta 700001.

ELECTRIC LAUNDRY APPARATUS

Bajaj Electricals Ltd., 45-47, V. Nariman Rd., Bombay 400001.

Escec Kitchenaid, 'Shreenivas House', 98, Dattaram Lad Mrg., Kalachowki, Bombay 400033.

ELECTRIC LIFTS

Best & Crompton Engg. Co. Ltd., 13/15, North Beach Rd., Madras 600001.

Bharat Bijlee Ltd., Electric Mansion, Prabhadevi, Bombay 400025.

City Lifts & Engg. Co. Pvt. Ltd., 102/A, New Bldg., Shastri Hall, Tardeo Rd., Bombay 400007.

Consolidated Hoists Pvt. Ltd., Pune 411009.

Electric Construction & Equipment Co. Ltd., ECE House, 28-A, K. Gandhi Mrg., New Delhi 110001.

Express Elevators Pvt. Ltd., 323/324, Bassa Indl. Estate, Century Bazar Lane, Bombay 400025.

Otis Elevator Co. (India) Ltd., Gateway Bldg., Apollo Bunder, Bombay 400039.

Sun-Beam Elevators, 5/27, Padam Housing Socy., Opp. Military Dairy Farm, Pimpri, Pune 411017.

ELECTRIC METERS & MEASURING INSTRUMENTS

(See under Meters & Measuring Instruments).

ELECTRIC MOTORS

(See under Motors—Electric).

ELECTRIC TOOLS & STAMPINGS

Aarvy Power Tools Pvt. Ltd., 174, GVMM Ind. Complex, Odhav Rd., Ahmedabad 382410.

Devidayal Stainless Steel Ind. Pvt. Ltd., Darukhana, Reay Rd., Bombay 400010.

Hyderabad Laminations & Stampings, 1-7-1054, Azamabad Indl. Area, Hyderabad 500020.

Kulkarni-Black & Decker Ltd., Shirol 416103, Kolhapur Dist.

Nippon Electrical Stampings, 7, Tejpaul Ind. Estate, Kurla Andheri Rd., Saki Naka, Bombay 400072.

Precision Stampings, Plot 106, Sector 24, Faridabad 121005 (Haryana).

Westrex Electrical Stampings, 107, Mittal Estate, Saki Naka, Bombay 400059.

ELECTRIC WIRES, CABLES & ACCESSORIES

Andhra Pradesh

Andhra Industrial Works, C-2, Indl. Estate, P.B. No. 20, Cuddapah 516001.

Bojat Agro Industrial Corpn., Enikebadu, Vijayawada 520005.

Galada Continuous Castings Ltd., P-2/6, I.D.A. Block 11, Uppal, Hyderabad 500039.

Hyderabad Aluminium Industries, A-6, Cooperative Industrial Estate, Balanagar, Hyderabad 500037.

Krishan Conductors Pvt. Ltd., Anjaneya Pantula St. Labripet, Vijayawada 520005.

Premier Metal Works, C-1, Industrial Estate, Vijayawada 520007.

Ranka Cables Corporation, Industrial Estate, Cuddapah 516001.

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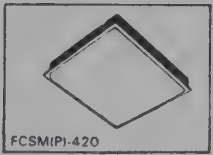
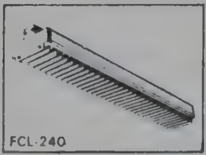

FCSM(P)-420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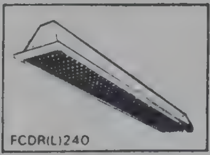
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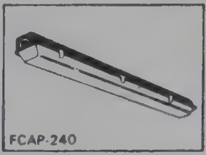
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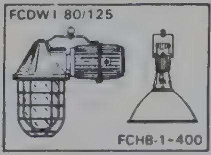
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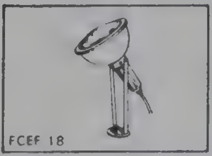
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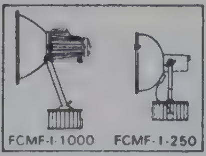
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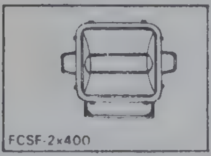
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Sakti Engineering Co., Museum Road, Governorpet, Vijayawada 520001.
Technind Cables, F-5, Industrial Estate, Nandyal 518502.

Assam

Assam Conductors & Tubes Ltd., P.O. Bamuni Maidan, Gauhati 781021.

Bihar

Express Cables Pvt. Ltd., Fraser Rd., Patna 800001.
Maruti Wire Industry Pvt. Ltd., Cantt. Rd., P.O. Khagaul, Patna 801105.
Muzaffarpur Hosiery Industries & Agencies Pvt. Ltd., Exhibition Rd., Patna 800001.
Universal Wires & Industries, India Machinery Bldg., 2nd Flr., Exhibition Rd., Patna 800001.

Delhi

Aluminium Industries Ltd., H-108, Himalaya House, Kasturba Gandhi Marg, New Delhi 110001.
G.S. Inds., 4-F, Vijaynagar, Kingsway, Delhi 110009.
Indian Aluminium Cables Ltd., 7th Flr., Kanchenjunga Bldg., 18, Barakhamba Rd., New Delhi 110001.

Gujarat

Ashapura Electricals, A-2-629, GIDC Makarpura Indl. Estate, Vadodara 390003.
Bombay Conductors & Electricals Pvt. Ltd., P.B. No. 9002, Maninagar, Ahmedabad 380008.
Devendra Wire Works, Rd. No. 3, Udhna Udyognagar, Udhna 394210.
Diamond Cables, 5/12, 'A' Indl. Estate, Gorwa Rd., Vadodara 390003.
Hindustan Conductors Pvt. Ltd., Opp. W. Rly. 'D' Cabin, Chhanni Rd., Vadodara 390002.
India Metal Traders, Rd. No. 10, Indl. Estate, Udhna 394210.
Prem Conductors Pvt. Ltd., 211, New Cloth Market, Ahmedabad 380002.
Sampat Heavy Engineering Co., 231, Anand Cloth Market, Nr. Sarangpur Bridge, Ahmedabad 380002.
Unique Industries, P.B. No. 54, Nadiad 387001.

Haryana

Haryana Conductors Pvt. Ltd., 17th Milestone, G. T. Rd., Kundli 131028.

Himachal Pradesh

Himachal Conductors Pvt. Ltd., Sabathu Rd., Saproon 173211, Solan Dist.

Jammu & Kashmir

Diko Cables, The Bund, Srinagar 190001.
Kumar Electricals, 31, Indl. Estate, Hira Nagar 184142.
Ravi Conductors, 26-A/D, Gandhi Nagar Extension, Jammu 180004.

Karnataka

Bangalore Cables Pvt. Ltd., 11 KM., Hosur Rd., Bangalore 562129.
Bharat Conductors Pvt. Ltd., A-8, Peenya Indl. Estate, Peenya, Bangalore 562140.
Karnataka Conductor Pvt. Ltd., Udyambagh, Belgaum 590006.
Sharavathy Conductors Pvt. Ltd., 19, OMR Industrial Estate, 6th Mile, Old Madras Rd., Bangalore 560016.
Transmission Wire & Accessories, Raghava Sadana, Ramvilas Rd., Mysore 570001.

Kerala

Anjaniya Industries, Plot 88, Major Indl. Estate; South Kalamassery 670562.
General Metals (Props., Premier Enterprise Pvt. Ltd.), Indl. Estate, Trivandrum 695019.
Madhav Aluminium Conductors Pvt. Ltd., Saraf House, W/Island, Cochin 682003.
Southern Cables & Engineering Works, Chulikkal, Cochin 682005.

Madhya Pradesh

Deora PU Cabeon Manufacturing Co. Pvt. Ltd., 17/18, Polo Ground, Indore 452001.
Jayant Copper & Steel Products, Sadar Bazar, Bilaspur 495001.
K. V. Cables & Conductors, Patel Nivas, Ramdasnagar, Bilaspur 495001.
M. P. Wires & Conductors Pvt. Ltd., 31, Indl. Estate, Gwalior 474004.
Mutha Industrial Corporation, Halvai Lane, Raipur 492001.
Narmada Industries, 6/1, Indl. Estate, Govindpura, Bhopal 462001.
Skyline Industries Pvt. Ltd., 8/4, Sukliya Indl. Area, Indore 452003.
Veekay Electricals, 994, Wright Town, Jabalpur 482001.
Vindhya Enterprises, P. B. No. 43, Rani Baug, Rewa 486001.

Maharashtra

Asian Cables Corpn. Ltd., Ceat Mahal, 463, Dr. A. Besant Rd., Worli, Bombay 400025.
Devidayal Electronics & Wires Ltd., Gupta Mills Estate, Reay Rd., Bombay 400010.
Dharendra Wire Industries, 198/24, Kalbadevi Rd., Bombay 400002.
Insulating Wire Industries, A-59, 1st Flr., Virvani Indl. Estate, Western Express Highway, Goregaon (East), Bombay 400063.
Jay Electric Wire Corpn. Ltd., Maker Bhawan No. 2, New Marine Lines, Bombay 400020.
Laxmi Wire & Metal Industries, 202, Arun Chambers, 2nd Flr., Tardeo Rd., Bombay 400034.
Madhu Electricals, 5-B, Vijay Chamber, Tribhuvan Rd., Bombay 400004.
Patel Wire Industries, Daya Mandir, 4th Flr., 43/25, Mumbadevi Rd., Bombay 400003.
Shree Nursingsahay Mudungopal Electric Co. Pvt. Ltd., 45-47, Lohar Chawl, Bombay 400002.
Wandleside National Conductors Ltd., Ind. Estate, Lalbaug, Bombay 400012.

Punjab

Associated Wires & Conductors Co. Pvt. Ltd., Tanda Rd., Jullundur City 144001.
ESS ESS Kay Engg. Pvt. Ltd., Factory Area, Kapurthala 144001.
Ganga Steel Rolling Mills & Co., 188/5, B. T. Bye Pass Rd., Ludhiana 141001.
Industrial Cables India Ltd., Industrial Area, Rajpura 140401.
United General Industries, E/4, Indl. Focal Point, Mohali 141103, Rupar Dist.

Rajasthan

Indo Engineering (Kota) Pvt. Ltd., Gumanpura, Kota 324001.
Jaipur Metals & Electricals Ltd., Nr. Rly. Station, Jaipur 302006.
Metal Extrusions, 44, Sudershanpura Indl. Estate, Jaipur 302006.
Murarka Enterprises, 11-B, Vallabhnagar, Kota 324007.
New Age Cable Company, Amber Rd., Jaipur 302001.
Oswal Cables Pvt. Ltd., D-249, Devi Marg, Bani Park, Jaipur 302006.
Paras Pvt. Ltd., 16, Indl. Area, Banswara 327001.
Prem Cables Pvt. Ltd., P.O. Pipalia Kalan 306307. *Via* Sojat Rd.
Rajasthan Wire Products, 36, Sudershan Estate, Jaipur 302006.

Tamil Nadu

Modi Electric Mfg. Co., 10-B, Kasturi Ranga Iyengar Rd., Alwarpet, Madras 600018.
Reavathee Enterprises, Developed Plot No. 30, Industrial Estate, Guindy, Madras 600632.

Uttar Pradesh

Agarwal Cables, Malgodown Rd., Faizabad 224001.
Anand Cables, 21, Vidhan Sabha Marg, Lucknow 226001.
Arkay Wires Pvt. Ltd., 117/491, Pandu Nagar, Kanpur 208005.
Kashi Cables, D-7, Indl. Estate, Varanasi 221002.
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Phone: 226831.

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12th floor, Kasturba Gandhi Marg,
New Delhi 110 001.
Phones: 385471/72.

Madras:

15, General Patters Road,
Madras 600 002.
Phone: 840224.

West Bengal

Aluminium Cables & Conductors (U.P.) Pvt. Ltd., 2-1, Shakespeare Sarani, Calcutta 700016.
B.S. Industries, 2, Maharishi Devendra Rd., Calcutta 700007.
Bihar Cable & Wire Industries Ltd., P-21/22, Radha Bazar St., Calcutta 700001.
Bindwala Industrial Corpn.,6, Hanspukar 1st Lane, Calcutta 700007.
Calcutta Cables Co., 6, Punam Chand Bagaria Rd., Bally 711201.
Electrical Accessories Co., Mercantile Bldgs., 2nd Flr., Lall Bazar St., Box No. 2198, Calcutta 700001.
Electrical Mfg. Co. Ltd., 136, Jessore Rd., Calcutta 700055.
J. J. H. Industries Ltd., 9, Transport Depot Rd., Calcutta 700027.
Jeewanlal (1929) Ltd., Crown Aluminium House, 23, Brabourne Rd., Calcutta 700001.
Khemka Cable Works Pvt. Ltd., 83, Beadon St., Calcutta 700006.
National Cable Works Ltd., 20, Goalpara Rd., Calcutta 700060.
(Also see Wires, Cables and Accessories in this list.)

ELECTRICAL APPLIANCES—DOMESTIC

Delhi

Elite Electl. Inds., 5332, Chandrawal Rd., Subzi Mandi, Delhi 110007.
Jain Industries, 483, Bartan Market, Sadar Bazar, Delhi 110006.
M.C. Engg. Co. Pvt. Ltd., 220, Okhla Ind. Est., New Delhi 110020.
Monarch Engg., 110, New Okhla Ind. Complex, Phase I, New Delhi 110020.
Nagpal Traders Pvt. Ltd., M-12, Gr. Kailash Market, New Delhi 110048.
Soneeka Appliances, P-15, Green Park Ext., New Delhi 110016.

Gujarat

Reprographers & Engrs. Pvt. Ltd., Shed No. C/180, GIDC Indl. Estate, Vapi 396195, Valsad Dist.

Haryana

American Universal Electric (I) Ltd., Model Town, Faridabad 121003.

Karnataka

Associated Electronic & Electrical Ind. (Bangalore) Pvt. Ltd., 1, Church St., Bangalore 560001.
Fortune Electrical (India) Pvt. Ltd., 173, Rashtreeya Vidyalaya Rd., Visveswarapuram, Bangalore 560004.
Maxton Marketing Pvt. Ltd., 563, 32nd Cross, 11th Main Rd., 4th Block, Jayanagar, Bangalore 560011.
National Radio & Electronics Co. Ltd., 36/79, Silver Jubilee Park Rd., Bangalore 560002.

Maharashtra

Anchor Inds., 185, Bombay Talkies Compd., Malad, Bombay 400064.
Bajaj Electricals Ltd., 45-47, V. Nariman Rd., Bombay 400023.
Devidayal Stainless Steel Ind. Pvt. Ltd., Darukhana, Reay Rd., Bombay 400010.
Escee Kitchenaid, Shreenivas House, 98, Dattaram Lad Mrg., Kalachowki, Bombay 400033.
Filco Electric Inds., Hammersmith Indl. Estate, S. Temple Rd., Bombay 400016.
Homa Ind., 125-H, Andheri Kurla Rd., Bombay 400059.
Industrial Controls & Appliances Pvt. Ltd., 47, Chakala Rd., Andheri (East), Bombay 400069.
Killick Nixon Ltd., Killick House, Home St., Bombay 400001.
Peico Electronics & Electricals Ltd., Shivsagar Estate, Dr. Annie Besant Rd., Bombay 400018.
R. G. Kewswani Ind., 132, Dr. A. Besant Rd., Worli Naka, Bombay 400018.
Racold Appliances Pvt. Ltd., 17, 1st Pasta Lane, Colaba, Bombay 400005.
Raj Traders, Dayalal Compd., S. V. Rd., Malad West, Bombay 400064.
S. R. Products, W-41, M.I.D.C., Bhosari, Pune 411026.
Sol Ray Appliances Pvt. Ltd., 311, Mirabelle, 33A, New Marine Lines, Bombay 400020.
Standard Electrical Products, Oshiwara Bldg., S. V. Rd., Jogeshwari West, Bombay 400060.
Veejay's Trading Corporation, 49, K. M. Sharma Marg, Bombay 400002.
Vohras Enterprises, 22, Police Court Lane, Bombay 400001.

Tamil Nadu

Govel Appliances Pvt. Ltd., 34, Veerabhadra Iyer St., Madras 600034.
Standard Electric Appliances, 27, Gen. Patters Rd., Madras 600002.

Uttar Pradesh

India Sales & Service Pvt. Ltd., C32/27, Vidyapith Rd., Varanasi 221002.

West Bengal

General Electric Co. of India Ltd., 6, Chittaranjan Ave., Calcutta 700013.

ELECTRICAL APPLIANCES—INDUSTRIAL

Delhi

Asea Ltd., 310, Bhandari House, Nehru Place, New Delhi 110019.
German Electric Co. Inc., United India Life Bldg., Conn. Place, New Delhi 110001.
Kunjal Electricals Pvt. Ltd., 1805, Electl. Mkt., Chandni Chowk, Delhi 110006.
MC Engg. Co. Pvt. Ltd., Unit II, 20, Okhla Indl. Estate, New Delhi 110020.

Maharashtra

Aerolite Inds., 7, Mehta Indl. Estate, I. Patel Rd., Goregaon East, Bombay 400063.
Alpha Electric & Engg. Co., 13/15, New Prabhat Chambers, 89, Ranade Rd., Dadar, Bombay 400028.
Asea Ltd., Asea House, Goa St., Ballard Estate, Bombay 400038.
Dattatraya Industries Pvt. Ltd., 691-A, Poona-Satara Rd., Pune 411009.
Escee Kitchenaid, 'Shreenivas House', 98, Dattaram Lad Mrg., Kalachowki, Bombay 400033.
Forward Engg. Ind., Plot No. A-8, Road No. 1-N, M.I.D.C., Thane 400604.
Hazari Trading Co., 296, P. D'Mello Road, Bombay 400001.
Kalki Inds., Kalki Estate, Goregaon East, Bombay 400063.
Lawkim Ltd., 16, Horniman Circle, Bombay 400023.
Modern Products, Kesakaka Compd., I. B. Patel Rd., Goregaon East, Bombay 400063.
Navbharat Electrical Industries, Premji Chambers, Hospital Lane, Bombay 400001.
Peico Electronics & Electricals Ltd., Shivsagar Estate, Dr. Annie Besant Rd., Bombay 400018.
Shalimar Electronic Inds., Navketan Ind. Estate, Mahakali Rd., Bombay 400069.
Sushra & Co., Ghatkopar Indl. Est., Shastri Marg, Bombay 400086.
Time Electrical Corpn., Palkhiwala Bldg., 2nd Dhobi Talao Lane, Bombay 400002.
Vimal Electl. Inds., 100, Lalbaug Garden Rd. No. 1, Malad West, Bombay 400064.

Tamil Nadu

Electrical Fittings & Equipment (Madras) Pvt. Ltd., 99, Mount Rd., Madras 600002.
English Electric Co. of India Ltd., Pallavaram, Madras 600043.
Kumar Electl. Inds., 42, N. S. C. Bose Rd., Madras 600001.

West Bengal

Asea Ltd., 4, Lyons Range, Calcutta 700001.
Motor & Machinery Mfrs. Ltd., 10, Jawpur Rd., Calcutta 700030.

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PHONES: 267744, 260415, 265709, 260654.

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ELECTRICAL DISTRIBUTION & TRANSMISSION LINE EQUIPMENT

Andhra Pradesh

Venkateswara Transmissions Pvt. Ltd., Plot No. 23B, Patancherlu 502320. Medak Dist.

Delhi

Allied Electric & Hardware Ind. Pvt. Ltd., 10307, Motia Khan, New Delhi 110055.
Asea Ltd., 301, Bhandari House, 91, Nehru Place, New Delhi 110019.
S.A.E. (India) Ltd., 29 & 30, Community Commercial Centre, Basant Lok, Vasant Vihar, New Delhi 110057.

Gujarat

Amul Transmission Line Hardware Pvt. Ltd., Parikh Estate, Dabhoi Rd., Vadodara 390004.
Appex Electricals, Vijay Ind. Estate, Padra Rd., Samiala, Vadodara 390001.
Bharat Lindner Pvt. Ltd., C-2/19, Ind. Estate, Vadodara 390003.
Electro Engg. Products, 77, Haribhakti Colony Extn., Old Padra Rd., Vadodara 390007.
Jaibharat Poles Mfg. & Engg. Co., 4/5, Ind. Estate, Vadodara 390003.
Johnson Electric Co., Chhani Rd., Navayard, Vadodara 390002.
Power Build Pvt. Ltd., Vallabh Vidyanagar 388120. (Via Anand).

Karnataka

Fortune Electrical (India) Pvt. Ltd., 173, Rashtreeya Vidyalaya Rd., Visveswarapuram, Bangalore 560004.
Govt. Electric Factory, Mysore Rd., Bangalore 560026.
Sagar Steel Pvt. Ltd., 2/13A, B. V. K. Iyengar Rd Bangalore 560053.
Vidyut Equipment Co., Seshadripuram Main Rd., Bangalore 560020.

Maharashtra

Asea Ltd., Asea House, Goa St., Bombay 400038.
Bombay Switchgears, Laxmi Woollen Mills Estate, Off Haines Rd., Shakti Mills Lane, Bombay 400011.
East Asiatic Electric Corpn., Manhar Bldg., 187, Lohar Chawl, Bombay 400002.
Electro Metal Ind., Kolshet Rd., Thane 400601.
Engineers' Enterprises Pvt. Ltd., Plot No. A-102, Rd. No. 16, Wagle Estate, Thane 400604.
Esenpro Transmission Equipments Pvt. Ltd., Esenpro House, 24, Marol Co-op. Indl. Socy. Ltd., M. Vasanji Rd., J. B. Nagar, Bombay 400059.
Jayant Inds., 33, Naik Nivas, 30, Benham Hall Lane, Bombay 400004.
Kamani Engg. Corpn. Ltd., Kamani Chambers, Ballard Est., Bombay 400038.
Kirloskar Pneumatic Co. Ltd., Hadapsar Ind. Estate, Pune 411013.
Larsen & Toubro Ltd., L & T House, Ballard Estate, Bombay 400038.
Magco Controls, Post Box 6666, Bandra, Bombay 400050.
Morarji Dorman Smith Ltd., Prospect Chambers, 317/21, Dr. D. Naoroji Rd., Bombay 400001.
NTB International, A-302, Rd. No. 32, Wagle Indl. Estate, Thane 400604.
S. R. Products, W-41, M.I.D.C., Bhosari, Pune 411026.
Srikesh Engg., Noble Chambers, 11, Ghogha St., Bombay 400001.
Star Delta Electricals, 135A, Maulana Azad Rd., Bombay 400008.
Steelite Engg. Corpn., Manek Mansion, 8, Nanabhai Lane, Bombay 400001.
Transelektra, 22, Oasis, Vakola Masjid, Santacruz East, Bombay 400055.

Orissa

Hirakud Indl. Works, Hirakud 768016.

Pondicherry

Vijay Industrial Controls, 143, Cathedral St., Pondicherry 605001.

Tamil Nadu

Best & Crompton Engg. Ltd., 13/15, N. Beach Rd., Madras 600001.
English Electric Co. of India Ltd., Pallavaram, Madras 600043.
Hivelm Inds. Ltd., 135, Lattice Bridge Rd., Adyar, Madras 600020.
Seshasayee Inds. Ltd., Vadalur 607303, S. Arcot Dist.

West Bengal

Asea Ltd., 4, Lyons Range Calcutta 700001.
Bagchi Electric Co., 262, Acharya P. Chandra Rd., Calcutta 700006.
D. C. Ghose & Co. (Agents) Pvt. Ltd., 11, Govt. Place East, Calcutta 700069.
East India Electricals, 20. A. Hamid Rd., Calcutta 700001.
Electric Construction & Equipment Co., 10, Camac St., Calcutta 700016.
Electrical Mfg. Co. Ltd., 136, Jessore Rd., Calcutta 700055.
EMC Steelal Ltd., 51, Canal East Rd., Calcutta 700010.
Fort Gloster Ind. Ltd., 31, Chowringhee Rd., Calcutta 700016.
Hengers (I) Pvt. Ltd., 59-B, Chowringhee Rd., Calcutta 700020.
Hind Galvanising & Engg. Co. Pvt. Ltd., 96, Garden Reach Rd., Calcutta 700023.
Indo Asiatic Corpn., 30, G. C. Avenue, Calcutta 700013.

ELECTRICAL EQUIPMENT FOR LARGE PLANTS

Delhi

Asea Ltd., 301, Bhandari House, 91, Nehru Place, New Delhi 110019.
Bharat Heavy Electricals Ltd., H. Times House, 18, K. Gandhi Marg, New Delhi 110001.
Electric Construction & Equipment Co. Ltd., ECE House, 28A, Kasturba Gandhi Mrg., New Delhi 110001.

Gujarat

Electric Control Gear Ltd., Rakhial Rd., Ahmedabad 380023.
Hindustan Brown Boveri Ltd., P. Box 284, Vadodara 390001.
Jyoti Ltd., Ind. Area, Vadodara 390003.

Madhya Pradesh

Heavy Electricals (India) Ltd., P.O. Piplani, Bhopal 460021.

Maharashtra

Asea Ltd., Asea House, Goa St., Ballard Estate, Bombay 400038.
Bajeria Industries, 103, Mount Rd., Mazgaon, Bombay 400010.
Crompton Greaves Ltd., Kanjur, Bombay 400078.
Dattatraya Industries Pvt. Ltd., 69-A, Pune-Satara Rd., Pune 411009.
Forward Engg. Ind., Plot No. A-8, Road No. 1-N, M.I.D.C., Thane 400604.
Hind Rectifiers Ltd., Lake Rd., Bhandup, Bombay 400078.
Hindustan Brown Boveri Ltd., Brown Boveri House, 264-265, Dr. A. Besant Rd., Bombay 400025.
Hindustan Klockner Switchgears Ltd., Dattapada Rd., Borivli, Bombay 400092.
Indian Engg. Co., 132, Dr. A. Besant Rd., Bombay 400018.
Larsen & Toubro Ltd., L. & T. House, Dougall Rd., Ballard Estate, Bombay 400038.
Richardson & Cruddas (1972) Ltd., Byculla Iron Works, Bombay 400008.
Siemens India Ltd., 134A, Dr. A. Besant Rd., Worli, Bombay 400018.
Voltas Ltd., 19, Graham Rd., Ballard Estate, Bombay 400038.

Tamil Nadu

Hackbridge-Hewittic & Easun Ltd., 5-7, Second Line Beach, Madras 600001.
Shanti Enterprises, 3A, Avenue Rd., Madras 600034.

West Bengal

Andrew Yule & Co. Ltd., Yule House, 8, Clive Row, Calcutta 700001.
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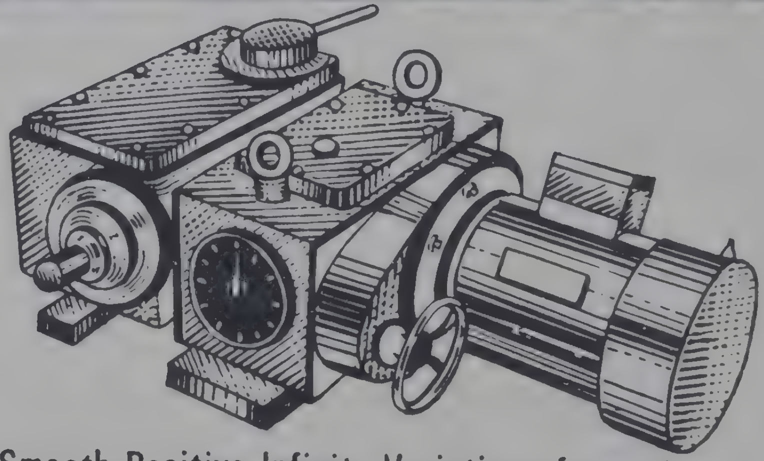

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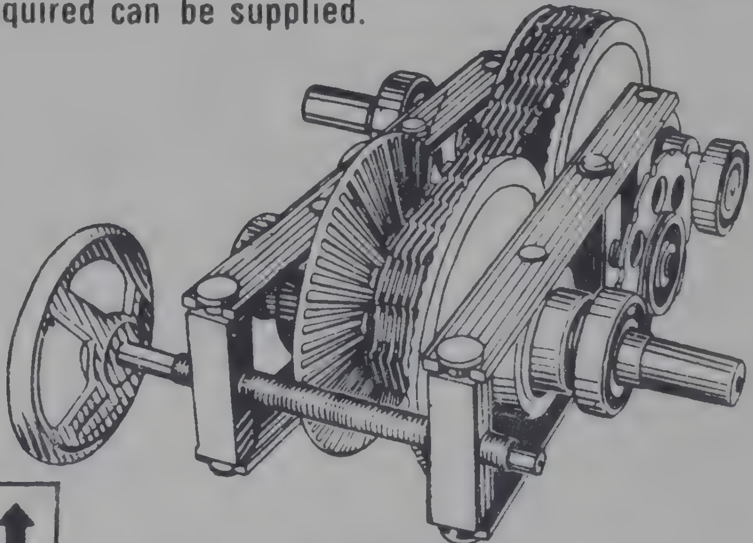

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Electric Construction and Equipment Co. Ltd., 9, K. Singhee Rd., Calcutta 700002.

Krugg Engrs., 22, Rabindra Sarani, Calcutta 700001.

ELECTRICAL HEATING APPLIANCES

(See Heaters, Heating Appliances, Industrial Ovens, Incubators, etc. in this list.)

ELECTRICAL HEATING ELEMENTS

Bajaj Engg. Co., 5, Ind. Development Area, Balanagar, Hyderabad 500037.

Bharat Electricals (Sales), 60, Apollo St., Bombay 400023.

Bright Trade Syndicate, Diamond Bldg., Lohar Chawl, Bombay 400002.

Commonwealth Electl. Inds., 27, Mangaldas Rd., Lohar Chawl, Bombay 400002.

Doshi Metal Industries, 3, Jawahar Rd., Udyognagar, Udhna 394210.

Electratek Inds., 18, V. V. Rd., Bangalore 560004.

Escee Kitchenaid, Shreenivas House, 98, Dattaram Lad Mrg., Kalachowki, Bombay 400033.

G.K. Trdg. Co., 46, Mohatta Mkt., Palton Rd., Bombay 400001.

Himalaya Electl. Inds. (India) Pvt. Ltd., 8711, Roshanara Rd., Delhi 110007.

I.G.E. (India) Ltd., Nehru House, 4, Bahadur Shah Zafar Mrg., New Delhi 110002.

Impex Trdg. Co., Kothari Mansion, Opp. G.P.O., Bombay 400001.

Kantilal Chunilal & Sons, 80/82, Vithalwadi, Bombay 400002.

Orient Electricals, P. Box 1656, Madras 600001.

Paras Industrial Corpn., 10, Chaandivali Estate, Saki Vihar Rd., Bombay 400072.

Ramson Electrical Inds., 10072, Gali Zamar Wali, Nawab Ganj, Pul Bangash, Delhi 110006.

THE AHMEDABAD ELECTRICITY COMPANY LIMITED

Registered Office :
Jubilee House, Shahpur, Ahmedabad 380001.
Secretary : J. J. Rana, M.A., LL.B., M.B.A., F.C.S.

Head Office :
"Electricity House", Lal Darwaja, Ahmedabad 380001.

S. J. Coelho, I.A.S. (Retd.), *Chief Executive.*

S. Datta, B.Sc., B.E.E., F.I.E.E. (U.K.), *Chief Executive (Projects & Development).*

H. M. Pai, B.Sc. (Eng.), F.I.E., *Dy. Chief Executive (Technical).*

S. C. Shah, B.Com., LL.B., F.I.C.W.A., *Dy. Chief Executive (Finance & Management Services).*

U. K. Sheth, B.Sc., Mech. & Elec. Engineer (Durham), *Dy. Chief Executive (Commercial).*

H. U. Shah, B.A. (Hons.), LL.B., M.L.W., M.B.A., *Dy. Chief Executive (Personnel).*

Power Station : **Sabarmati, Ahmedabad 380005.**

Contracts Division: Shahpur, Ahmedabad 380001.

Bombay Office :
83, "Advent", General Bhonsle Marg, Backbay Reclamation, Bombay 400021.

Raval & Co., Shreeji Bhuvan, Lohar Chawl, Bombay 400002.

Sulabh Corpn., Kothari Mansion, Opp. G.P.O., Bombay 400001.

Technotrade Engg. Co., 285E, B.B. Ganguli St., Calcutta 700012.

Telelec Corpn. (India), N-29, No. 4 Lane, Anand Parbhat, Rohtak Rd., New Delhi 110005.

ELECTRICAL INDUSTRIES

Ahmedabad Electricity Co. Ltd., 83, 'Advent', G. Bhonsle Marg, Backbay Reclamation, Bombay 400021.

(See under Switches, Switchgears & Accessories.)

ELECTRONIC COMPONENTS/INSTRUMENTS

Andhra Pradesh

Electronics Corpn. of India Ltd., Ind. Devpt. Area, Cherlapalli, Hyderabad 500762.

Ferro Electrics Pvt. Ltd., Uppal, Hyderabad 500039.

General Trading Co., B-2/3, Ind. Estate, Moula Ali, Hyderabad 500040.

Hyderabad Electronic Instruments Ltd., 111/D, Sarojini Devi Rd., Secunderabad 500003.

Instrument Techniques Laboratory, B-2, Co-op. Ind. Estate, Balanagar, Hyderabad 500037.

Micro Ceramics Pvt. Ltd., A-8, Co-op. Ind. Estate, Balanagar, Hyderabad 500037.

Scientific Electricals Sales Pvt. Ltd., Shalibanda, Hyderabad 500002.

Solid State Devices India Ltd., 8-2-629, Rd. No. 1, Banjara Hills, Hyderabad 500034.

Southern Electrodes Ltd., Electronics Dn., Moula Ali Ind. Area, Hyderabad 500040.

Varicon Pvt. Ltd., B-37, Ind. Estate, Sanatnagar, Hyderabad 500001.

Bihar

Peak Electronics, P. Box 40, Giridhi 815301.

Delhi

Atlas Radio & Electronic Ind. Pvt. Ltd., 5A/7, Ansari Rd., Daryaganj, New Delhi 110002.

Belltek Electronics Pvt. Ltd., A-80, Naraina Indl. Area, Phase 1, New Delhi 110028.

Bhurji Supertex, B-29/B, Gali No. 9, Anand Parbat Indl. Area, New Delhi 110005.

Bolton Ind. Corpn., A-31, Kailash Colony, New Delhi 110048.

Continental Device India Ltd., C-120, Naraina Indl. Area, New Delhi 110028.

Delta Electronics Pvt. Ltd., C-120, Naraina Indl. Area, New Delhi 110028.

Electronic Inds. of India, 4684, Ansari Rd., Daryaganj, New Delhi 110002.

Indian Technological Products, Flat No. 305-6, Bldg. No. 35-36, Nehru Place, New Delhi 110019.

J. V. Electronics Ltd., 808-9, Meghdoot Bldg., 94, Nehru Place, New Delhi 110019.

K. L. B. Electronics, 3E/14, Jhandewalan Extn., New Delhi 110055.

M.C. Engineering Co. Pvt. Ltd., 220, Okhla Industrial Estate, New Delhi 110020.

Metores Corpn. Ltd., 808-9, Meghdoot Bldg., 94, Nehru Place, New Delhi 110019.

Modern Garments Pvt. Ltd. (Electronics Division), 3, Community Centre, East of Kailash, New Delhi 110024.

Parko Electronics (Regd.), 430, Lajpat Rai Mkt., Delhi 110006.

Peico Electronics & Electricals Ltd., 68, Najafgarh Rd., New Delhi 110015.

Stead Electronic Ind., 17-U.A., Jawahar Nagar, Delhi 110007.

Telesound India Ltd., G-4, South Extension I, New Delhi 110049.

Union Radio & Appliances Pvt. Ltd., K-3, South Extn. Part I, New Delhi 110049.

UPTRON Powertronics Ltd., Archana, 7th Flr., Cinema Bldg., Greater Kailash I, New Delhi 110048.

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- ★ **MODULAR PRODUCTS** — Chopper Amplifiers, Modular Power Supplies, Solid State Relays, Microprocessor Based Systems, Inverters, Execution of numerous custom made modules and equipment for specialised applications.
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- ★ Sub-assembly and fabrication work undertaken for large-scale modules and sub-assemblies.

Contact : **General Manager**

Continental Device India Ltd.,
C-120, Naraina Industrial Area, New Delhi-110 028, india. Tel.: 536150 (4 lines).
Cable: 'PREET' NEW DELHI. Telex : 031-2770.

Usha Electronics (I) Pvt. Ltd., 2, Anand Lok, New Delhi 110049.
Varicon Pvt. Ltd., 239, Okhla Indl. Estate, New Delhi 110020.
Vitronic Elektroniks Ltd., B-47, Connaught Place, New Delhi 110001.

Gujarat

Alchemie Pvt. Ltd., Opp. Potatia Talao, Saraspur, Ahmedabad 380018.
Baroda Electronics Ind. Pvt. Ltd., 78, Chhani Rd., Vadodara 390002.
Continental Electronics, 177/4, Naroda Indl. Estate, Naroda 382330. (Ahmedabad.Dist.).
Innovative Instruments, Katosan Road 382145. (Ahmedabad Dist.).
Jivan Electro Instruments, 394, Makarpura, Vadodara 390010.
Kohinoor Electronics Corpn., Post Box 537, Rajkot 360002.
Krishnonics Pvt. Ltd., Model Cinema Premises, Gandhi Rd., Ahmedabad 380001.
Luster Ceramics Pvt. Ltd., 4/19, Ind. Estate, Gorwa Rd., Vadodara 390003.
Maxtronix Pvt. Ltd., 1, Rajendra Socy., Vadodara 390011.
Parry Engg. & Electronics Pvt. Ltd., 178, GIDC Indl. Est., Naroda, Ahmedabad 380002.
Simplex Electronics, Kalidas Mill Compound, Gomtipur, Ahmedabad 380021.
Standard Electronics Ind. (Gujarat) Pvt. Ltd., 81, Chhani Rd., Opp. Jakat Naka, Vadodara 390002.
Suvik Electronics Pvt. Ltd., Plot 102, GIDC Engg. Estate, Gandhinagar 380028.
Synbiotics Ltd., Electronics Dn., 89-92, Indl. Area, Naroda 382330. (Ahmedabad Dist.)

Haryana

Continental Device India Ltd., 14/5, Mathura Rd., Faridabad 121003.
Crown Electronik Pvt. Ltd. Plot No. 88, DLF Indl. Area, 13/7, Mathura Rd., Faridabad 121003.
Eastern Electronics (Delhi) Ltd., 1K-2, Ind. Area, N.I.T., Faridabad 121001.

Karnataka

Bharat Electronics Ltd., Jalahalli Post, Bangalore 560013.
British Physical Laboratories India Pvt. Ltd., M. Gandhi Rd., Bangalore 560001.
Electronic Research Pvt. Ltd., 17th KM., Old Madras Rd., Bangalore 560049.
EM Electronix Pvt. Ltd., 158, 3rd Main, Indl. Town, Rajajinagar, Bangalore 560044.
Hegde & Golay Pvt. Ltd., "Shreeshyla", Bangalore 560011.
Kamal Ind., 2F, M Gandhi Rd., Bangalore 560001.
Karnataka State Electronic Devpt. Corpn. Ltd., 30, Race Course Rd., Bangalore 560001.
Nippon Electronics (India) Pvt. Ltd., Bull Temple Rd., Bangalore 560019
Tata Electronics Development Services, A169/170, IV Cross, Peenya Indl. Estate, Bangalore 560058.

Kerala

Kerala State Electronics Dev. Corpn. Ltd., 1133 & 1134, Keltron House, Vellayambalam, Trivandrum 695001.
O/E/N India Ltd., Electrogiri, Mullanthuruthy, Cochin 682314.
Telies Ltd., Vazhuthacaud, Trivandrum 695014.

Maharashtra

A. Lunar Engg., Moroba Nivas, 210 A-B, Girgaum, Bombay 400004.
Advani-Oerlikon Ltd., Ador House, 6, K. Dubash Mrg., Bombay 400023.
Afco Ltd., Plot No. 2, Kanjur Village Rd., Kanjur Mrg. (East), Bombay 400078.
Agronic Services, 201, Shivshakti Indl. Estate, Near Shreyas Talkies, L.B.S. Mrg., Ghatkopar, Bombay 400086.
Allied Electronics Corpn., 94, Kansara Chawl, Bombay 400002.
Amphetronix Ltd., Plot No. 105, Bhosari Indl. Area, Pune 411026.
Applied Electronics Pvt. Ltd., Aplab House, Plot No. A-5, Wagle Ind. Estate, Thane 400604.
Asha Bros. Pvt. Ltd., 35-C, Rd.No. 27, Wagle Indl. Estate, Thane 400604.
Bakelite Hylam Ltd., Tiecicon House, 18, Dr. E. Moses Rd., Bombay 400011.
Beacon Industrial Electronics Pvt. Ltd., Shree Ram Ind. Estate, Block A-13, Ambedkar Rd., Bombay 400031.
Bio-Care Equipment, 702, Vaishali Apartments, Janki Kutir, Juhu, Bombay 400056.
Bombay Burmah Trading Corpn. Ltd. (Electronics Divn.), Plot No. 2, Kanjur Village Rd., Kanjur Mrg. (East), Bombay 400078.
Dr. Beck & Co. (I) Ltd., Pimpri, Pune 411018.
Dattatray Ind. Pvt. Ltd., 691/A, Pune-Satara Rd., Pune 411009.
Devidayal Electronics & Wires Ltd., Gupta Mills Estate, Reay Rd., Bombay 400010.
Digital Electronics Ltd., Digital House, 74/11C, Cross Rd., Marol Indl. Area, Andheri East, Bombay 400093.
Edgar Handley & Co. Pvt. Ltd. Seksaria Chambers, 135, Nagindas Master Rd., Bombay 400023.
Electronica, Elektra House, 691/1A, Pune-Satara Rd., Pune 411009.
Elpro International Ltd., Chinchwad, Pune 411019.
Emco Electronics, 106, Indl. Area, Sion, Bombay 400022.
Excella Electronics, 54, Annapurna Ind. Estate, 46, Tilak Rd., Ghatkopar (East), Bombay 400077.
Expo Electronics Pvt. Ltd., 72-73, Jolly Maker Chamber No. 1, Nariman Point, Bombay 400021.
Filtronics, T-170, Bhosari Indl. Estate, Pune 411026.
Formica India Ltd., Akurdi, Pune 411035.
Goyal Electronic Ind., 319, Prasad Chambers, Near Roxy Cinema, Bombay 400004.
Hakotronics Pvt. Ltd., Bhor Inds. Bldg., Sussex Rd., Bombay 400027.
INBELEC, Electronic Components Divn. of Philips India Ltd., Band Box House, Dr. A. Besant Rd., Worli, Bombay 400018.
Indian Electronics, Asha Studio, Chembur, Bombay 400071.
Indian Engg. Co., 132, Dr. A. Besant Rd., Worli Naka, Bombay 400018.
International Meters & Electronics Corpn., 19-C, Shalimar Indl. Estate, Bombay 400019.
Jain Electronics, F-37, Nandhdham Ind. Estate, Marol, Bombay 400059.
Kaycee Industries Ltd., 32, Nicol Rd., Ballard Estate, Bombay 400038.
Khandelwal Herrmann Electronics Pvt. Ltd., Khandelwal Ind. Estate, Bhandup, Bombay 400078.
L.P. Electronics Pvt. Ltd., Plot No. A-251. Road 'B', Wagle Indl. Estate, Thane 400604
Maharashtra Electronics Corpn. Ltd., Plot No. 214, Backbay Reclamation, "Rehja" Centre, 13th Flr., N. Point, Bombay 400021.
Mahindra & Mahindra Ltd. (Electronics Division), Worli Rd. No. 13, Worli, Bombay 400018.
Mohns Electronics, Mohns House, 81, MIDC, Marol II, Andheri, Bombay 400093.
Monga Electronics Pvt. Ltd., Arun Bazar, Vivekanand Rd., Malad (West), Bombay 400064.
Morris Electronics Ltd., Bhosari Ind. Estate, Pune 411026.
Motwane Pvt. Ltd., 127, M. Gandhi Rd., Bombay 400023.
Mulchandani Elec. & Radio Ind. Ltd., Sukh Sagar, Hughes Rd., Bombay 400007.
National Radio & Electronics Co. Ltd., Mahakali Caves Rd., Chakala, Andheri (E), Bombay 400069.
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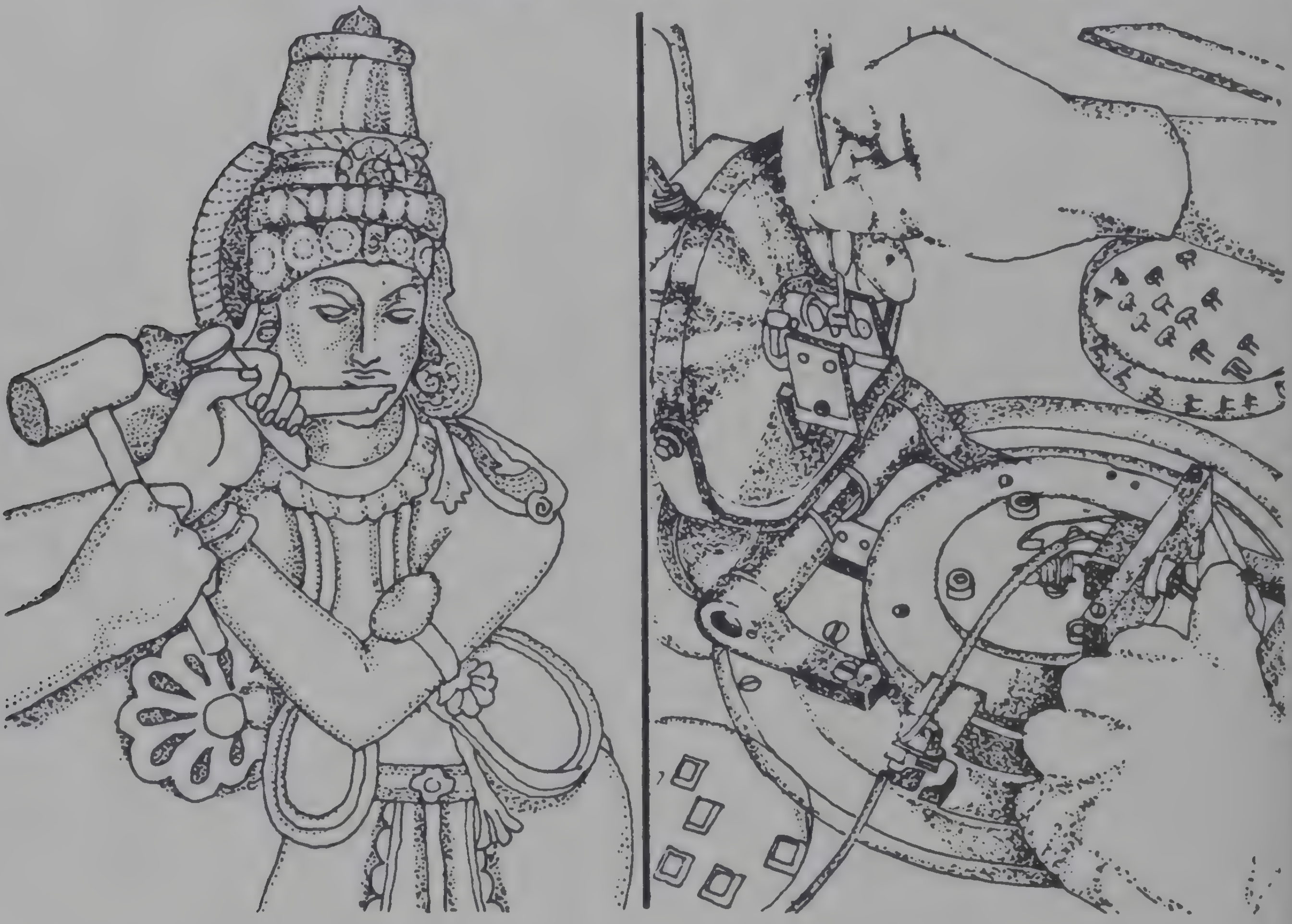

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FACTORY : ESCORP HOUSE, B-56-57, WAZIRPUR INDUSTRIAL AREA, DELHI-52 PH : 742081

Plastic Dies Co., Electronics Dn., 22-B, Govandi Stn. Rd., Bombay 400088.
Rescon Mfg. Co. Pvt. Ltd., Jamunotry, 26th Rd., Bandra, Bombay 400050.
Rosemount (India) Ltd., Taj Bldg., 2nd Flr., 210, Dr. D. N. Rd., Bombay 400001.
Saha Soshin Electronics Ltd., 266, Dr, Dr. A.B. Rd., Bombay 400025.
Sahney Kirkwood Commutators Pvt. Ltd., 27, Kirol, Vidya Vihar, Bombay 400084.
Sanes Varicon Pvt. Ltd., A-2, Bhosari Ind. Estate, Pune-Nasik Rd., Pune 411026.
Semiconductors Ltd., Radia House, Rampart Row, Bombay 400023.
Siemens India Ltd., 134A, Dr. A. Besant Rd., Bombay 400018.
Symtronics, Plot No. S-1, M.I.D.C. Indl. Area, Bhosari, Pune 411026.
Systech Pvt. Ltd., 124C, Erandwana, Opp. Kamala Park, Pune 411004.
Telerad Pvt. Ltd., Saki-Vihar Rd., Chandivali, Post Box No. 8929, Bombay 400072
Uranus Electrotechnik, 6, Sewree Bunder Rd., Bombay 400015.
Vibronics Pvt. Ltd., 4, Kurla Ind. Estate, Agra Rd., Ghatkopar, Bombay 400086.

Punjab

Patiala Resistors Ltd., 1, Nehal Bagh, Patiala 147001.
Punjab State Indl. Dev. Corpn. Ltd., P. Box No. 81, Chandigarh 160017.

Rajasthan

Gilard Electronics, 13/16-B, Indl. Estate, Kota 324007.

Tamil Nadu

Baliga Lighting Equipment Pvt. Ltd., Madras 690028.
CVP Lektronics, 29, IV Main Rd., Raja Annamalaipuram, Madras 600028.
Elahi Electronics, 18, Madhuvan Karai St., Madras 600016.
Hilversum Electronics Pvt. Ltd., 144, Siveram-Perungudi, Thoraipakkam, Adyar, Madras 600020.
Hogg Electronic Corporation, 306, Avanashi Rd., Coimbatore 641018.
Kody Medical Electronics Pvt. Ltd., 1, Eighth East St., Kamarajnagar, Madras 600041.
M.R. Electronics Components Ltd., 11-A/3, Mount Rd., Madras 600002.
Premier Textile Instruments Ltd., Premier House, 8/87, A.T.D. St., Race Course, Coimbatore 641018.
Procon Instrumentation Pvt. Ltd., 3-A, Thandavaraya Gramani St., Santhome, Madras 600004.
Reed Relays & Electronics India Ltd., 11, Ukkiyam, Torapakkam, Perungudi, Madras 600096.
Technolab Instruments Co., 1/155, Mount Rd., Madras 600002.

Uttar Pradesh

J.K. Electronics, 84/55, G.T. Rd., Kanpur 208003.
Siva Electronics (I) Pvt. Ltd., Rajindra Nagar Indl. Golony, Mohan Nagar, Ghaziabad 201001.
Teletube Electronics Pvt. Ltd., D-34, Sector 17, Kavinagar Indl. Area, Ghaziabad 201007.

West Bengal

Applied Electronics Pvt. Ltd., 22C, Maneehar Pukur Rd., Calcutta 700029.
East Coast Enterprises Ltd., 33, Brabourne Rd., Calcutta 700001.
Elvoc Pvt. Ltd., 36, Panditia Rd., Calcutta 700029.
Indo-Burma Petroleum Co. Ltd., Gillander House, N. Subhas Rd., Calcutta 700001.

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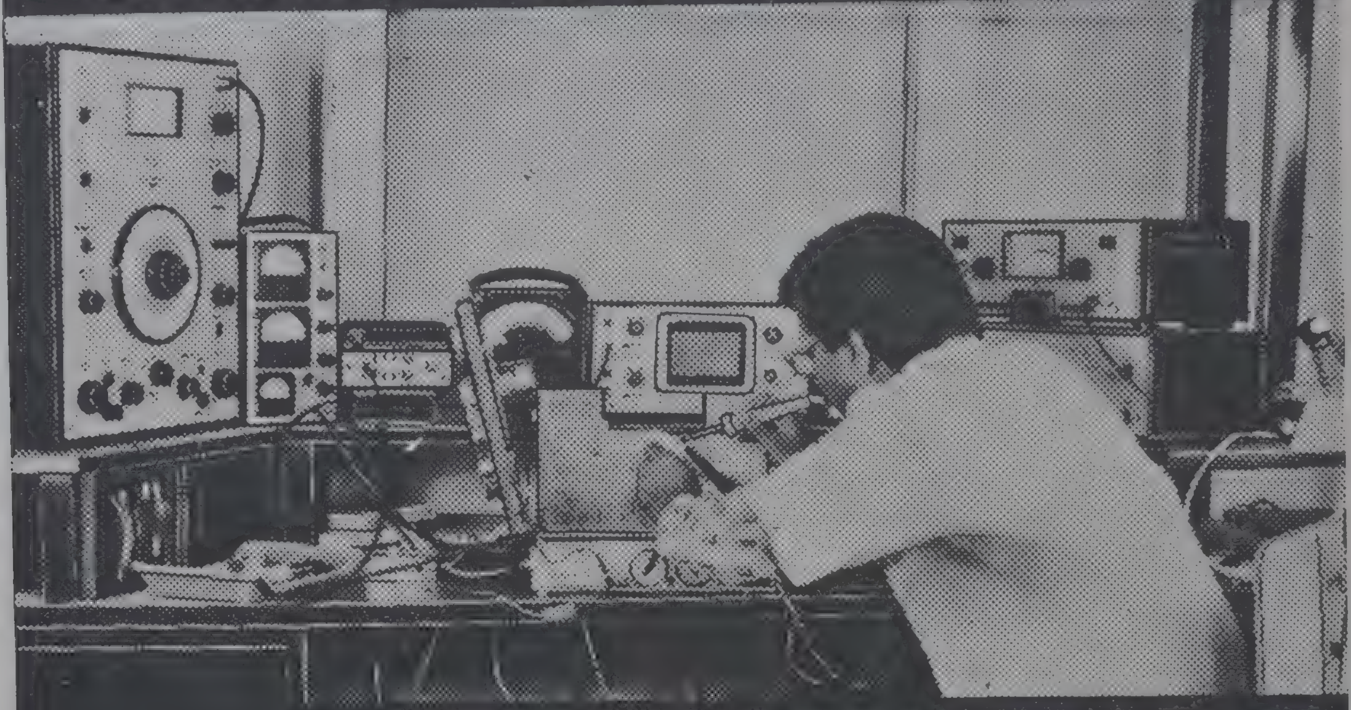

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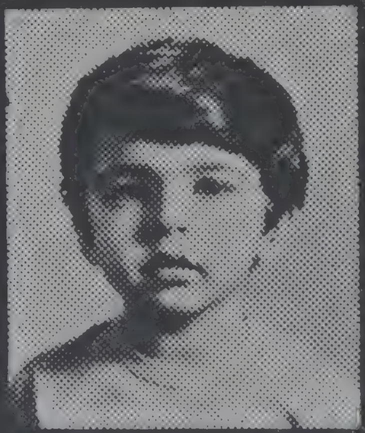

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55, Rama Nivas, 10th Cross, West of Chord Road, II Stage, Bangalore 560 086 Tel: 350772 Telex: 0345-8136 Cable: MELECTRON

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Jenson & Nicholson (India) Ltd., 225, A. J. C. Bose Rd., Calcutta 700020.
Metroark Pvt. Ltd., P.B. 16903, Calcutta 700034.
Neeco (India) Ltd., Mini Commerce House, 2B, G. C. Ave., Calcutta 700013.
Usha Telehoists Ltd., 14, Princep St., Calcutta 700016.

ELECTRONIC TIMERS

Chrono Time & Instrument Co., E-19, 6th Flr., Everest, 156, Tardeo, Bombay 400034.
Gravity Instruments Pvt. Ltd., Rakhial, Ahmedabad 380023.
Neutronic Mfg. Co., 12A, Marol-Maroshi Rd., Andheri East, Bombay 400059.
Pla Electro Appliances, Thakor Estate, Kurla-Kirol Rd., Vidya Vihar West, Bombay 400086.
Shah Electronics, 1117, Prasad Chambers, Opera House, Bombay 400004.
Subtronics, Kaliandas Udyog Bhavan, 147, Near Century Bazar Worli, Bombay 400025.
TSC Industries, 373, Dr. D. N. Rd., 3rd Flr., Bombay 400001.

ELECTROPLATING MATERIALS

Canning Mitra Phoenix Ltd., 5, Convent St., Bombay 400039.
Delta Chemicals, Cama Zone, Valbhat Rd., Bombay 400063.
Electro Ind. Pvt. Ltd., Ind. Area, Pratapnagar, Vadodara 390004.
General Inds., 2, Indl. Site, Indiranagar, Bangalore 560038.
Grauer & Weil (I) Ltd., Sukh Sagar, Hughes Rd., Bombay 400007.
Machsons Pvt. Ld., 40/B, Milan, 87, Tardeo Rd., Bombay 400034.
Mathuradas Bros. & Co., 76/78, Thakurdwar Rd., Bombay 400002.
Mica Ind., 4, Parvati Ind. Estate, Sun Mill Rd., Bombay 400013.
Platewell Processes & Chemicals Ltd., Padra Rd., Altadra, Vadodara 390001.
Precious Electro Chemicals Pvt. Ltd., Stadium House, Churchgate, Bombay 400020.
Progressive Chemicals Corpn., 29, Agarwal Indl. Estate, S. V. Road, Dahisar East, Bombay 400068.
Ronuk Inds. Ltd., 11-A, Abdul Gaffar Khan Rd., Worli Sea Face, Bombay 400025.
Seqonds & Powls Pvt. Ltd., B-27, Wazirpur Indl. Area, Delhi 110033.
Sonak Ind., 37, Doctor's Comp., Parel Cross Rd., Bombay 400012.
Weldun Engg. & Trading Co., 71A, N. Subhas Rd., Calcutta 700001.

ELECTROPLATING PLANTS

Bharti Trading & Engg. Co., 103, Dr. Mascarenhas Rd., Bombay 400010.
Grauer & Weil India Ltd., Sukh Sagar, Hughes Rd., Bombay 400007.
Kirti Engg. Works, B. K. Chhabra Compound, Vakola Bridge, Santa Cruz (E), Bombay 400055.
Navyug Ind., L. J. Cross Rd. No. 1, Mahim, Bombay 400016.

ELEVATORS

(See under 'Electric Lifts' in this list).

EMBOSSING MACHINES, GUNS AND TAPES

Bradma of India Ltd., Lakshmi Bldg., Sir P. Mehta Rd., Bombay 400001.
M. M. Industries, Hampton Court, N. Parekh Mrg., Near Colaba P.O., Bombay 400005.

EMERGENCY LIGHT

Automation, 310, 'Neelam', Dr. R. G. Thadani Mrg., Worli, Bombay 18.
Brisk Electro Sales Pvt. Ltd., Lamington Chambers, Lamington Rd., Bombay 400004.

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Chidambaram Electronic Enterprises, 14, Krishna Iyer St., Madras 600014.
Future Thinkers, 1112, Raheja Centre, N. Point, Bombay 400021.
Indian Technological Products, Flat No. 305, Bldg. No. 35-36, Nehru Place, New Delhi 110019.
Industrial Research Associates, 302, Acharya Commercial Centre, Bombay 400074.
K. I. A. & Co., 230, Arun Chambers, Bombay 400034.
Kheraj Electrical Inds., 147, Lohar Chawl, Tavawala Bldg., 2nd Flr., Bombay 400002.
Naik Bros., 15, Memorial Hall St., Madras 600003.
Test Equipments (Elec.) Pvt. Ltd., 310, Neelam, Dr. R. G. Thadani Mrg., Worli, Bombay 400018.
Veejay's Trading Corpn., 213, N. Point, Bombay 400021.
Vijay Lakshmi Electric Co., Sitaram Bldg., 37, Dr. D. N. Rd., Bombay 400001.

ENAMELWARE

Andhra Pradesh

Deccan Porcelain & Enamel Works Ltd., 2707, Bakaram, Mushirabad, Hyderabad 500380.
Nellore Enamels, Ind. Estate, Nellore 524001.

Maharashtra

Anant Machinery Pvt. Ltd., Plot No. 3B, Chinchwad Ind. Area, Chinchwad, Pune 411019.
Atlas Engineering Works, Old Anjir Wadi, Champshi Bhimji Rd., Mazgaon, Bombay 400010.
Enamelled Wires Ltd., Khanna Construction House, 44/A, Gaffar Khan Rd., Bombay 400018.
Lans Metals Pvt. Ltd., Patel Vanika, W. Express Highway, Bombay 400063.
Ogale Glass Works Ltd., Ogalewadi 415105, Satara Dist.
Pioneer Enamelling Works, Lakshmi Bldg., Sir P. Mehta Rd., Bombay 400001.

Tamil Nadu

Madras Enamel Works Ltd., 65, Sydenham Rd., Madras 60003.

West Bengal

A. K. Sarkar Ind. Pvt. Ltd., 32-1, Dalhousie Sq. East, Calcutta 700001.
Bengal Enamel Works Ltd., 24, Chittaranjan Ave., Calcutta 700012.
Bharat Tin & Enamel Co. Pvt. Ltd., 2A, Shakespeare Sarani, Calcutta 700016.
Blue Star Enamelware Co. Pvt. Ltd., 4, Dalhousie Sq. East, Calcutta 700017.
Sur Enamel & Stamping Works Ltd., 24, Dr. L. M. Bhattacharya Rd., Calcutta 700014.

ENGINE—DIESEL

(See 'Diesel Engines' in this list.)

ENGINES, EXPELLERS—OIL

Kirloskar Oil Engines Ltd., 13, Laxmanrao Kirloskar Rd., Khadki, Pune 411003.
New Bharat Engg. Works (Jam.) Ltd., Pandit Nehru Rd., Jamnagar. 361002.
Patel Manufacturers, P. Box 510, Rajkot 360001.
Shree Shankar Steel Inds., Samir Takuja, Gaya 823001.
Swastik Engrs., 7 Bhaktinagar, Stn. Rd., Rajkot 360002.
(See also 'Oil Mill Machinery' in this list.)

ENVIRONMENTAL TESTING CHAMBERS

Heatex Products Pvt. Ltd., Vikas, 3rd Flr., 11, Bank St., Bombay 400023.

ESSENCES

A. Boake Roberts & Co. India Ltd., 1-B, Seven Wells St., St. Thomas Mount, Madras 600016.
Asian Chemical Works, 124-26, Princess St., Bombay 400002.
Bush Boake Allen (India) Ltd., 1-5, Seven Hills St., St. Thomas Mount, Madras 600016.
Gogia Chemical Inds., A-127, Okhla Indl. Area, Phase II, Ne Delhi 110020.
Lana Floressens, 13, Swastik Indl. Estate, 178, Vidyanagari Mrg Kalina, Bombay 400093.
Naarden India Ltd., 6, Saki Vihar Rd., Saki Naka, Bomb 400072.

EXPLOSIVES

Indian Detonators Ltd., Kukatpalli, P.O. Sanatnagar, Hyderab 500018.
Indian Explosives Ltd., 34, Chowringhee, Calcutta 700071.
Sharda Industrial Engg. Works, 8, Siddapura Ind. Estate, Masra Lane, Halav Pool, Kurla, Bombay 400070.
Tamilnadu Industrial Explosives Ltd., 18, 2nd East Main R Gandhi Nagar, Vellore 632006.(Tamil Nadu)

EYELETS

M. S. Patel & Co., Eyelet House, Saki Vihar Rd:, Saki Na Bombay 400072.
Pioneer Eyelets Mfg. Co. Pvt. Ltd., Subhas Nagar, Jogeshw East, Bombay 400060.

FABRICATION—STEEL

(See under 'Steel Fabrication' in this list.)

FANS—ELECTRIC

Andhra Pradesh

Hyderabad Engg. Inds., Balanagar Township, Hyderabad 5000
Priya Electrical Inds., 32. T.I.E., Balanagar, Hyderabad 5000

Delhi

DLF Universal Ltd., 21-22, Narindra Place, Parliament St., N Delhi 110001.
Minn Enterprises, 6/30, Rajinder Nagar, New Delhi 110060.

Haryana

American Universal Electric (I) Ltd., Model Town, Farida 121003.

Gujarat

Nima Ltd., Tandalja, Vadodara 391410.
Shree Hari Appliances Pvt. Ltd., 841, GIDC, Makarpura Esta Vadodara 390010.

Maharashtra

Almonard Pvt. Ltd., 4, Saki Vihar Rd., Bombay 400072.
Bajaj Electricals Ltd., 45, V. Nariman Rd., Bombay 400023
Crompton Greaves Ltd., 1, V. B. Gandhi Mrg., Bombay 4000
Devidayal Fans, Dn. of Electrical Stampings Ltd., Darukha Bombay 400010.
Emco Electra Pvt. Ltd., 94, N. Master Rd., Bombay 40000
Innova Engg. P. Ltd., Plot 140, Marol Co-op. Indl. Estate, Mar Bombay 400059.
Matchwel Electricals (I) Ltd., Off Nagar Rd., Pune 411014.
Rallis India Ltd., 21, Raveline St., Bombay 400001.
Vithal Appliances Pvt. Ltd., 207, Rewa Chambers, 31, N Marine Lines, Bombay 400020.

Punjab

Beegee Corpn. Pvt. Ltd., 25, Factory Area, Patiala 147001.

Tamil Nadu

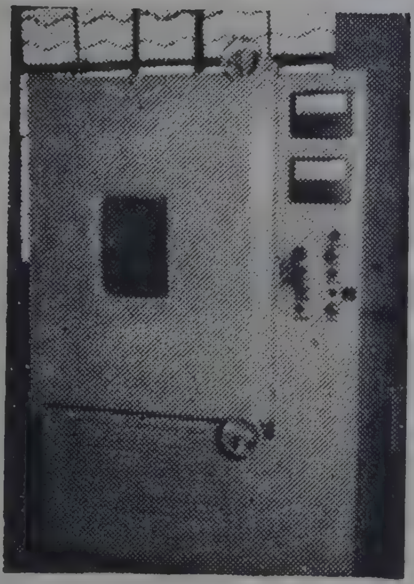
DLF Universal Ltd., 6, Avenue Rd., Nungambakkam, Mad 600034.
National Electricals, 3-10, Ambattur Indl. Estate, Madras 6000
P. S. G. & Sons, Peelamedu, Coimbatore 641004.

Uttar Pradesh

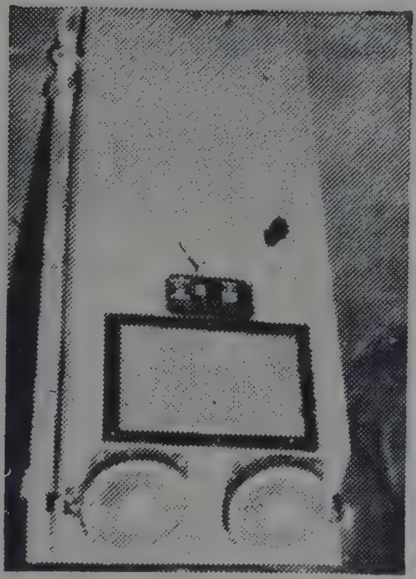
Engg. & Pulp Products Pvt. Ltd., B-29/15, Lanka, Varan 221005.
Sansar Fan Inds., G. T. Rd., Mahannagar, Ghaziabad 2010

West Bengal

Belrex India Ltd., 10, Princep St., Calcutta 700072.



Low Temperature Humidity Chamber. Temp. Range: —70°Cto +100°C. Humidity Range: 20% RH to 95% RH.



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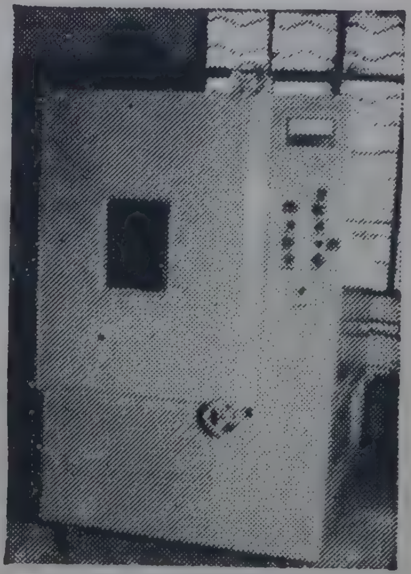
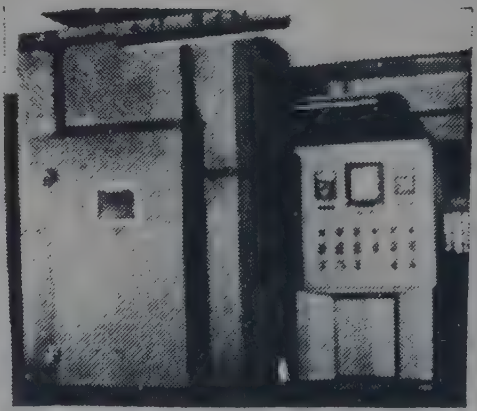
and

Other Foreign Manufacturers Products.



Low Temp. Chamber: — 70°C to + 100°C.



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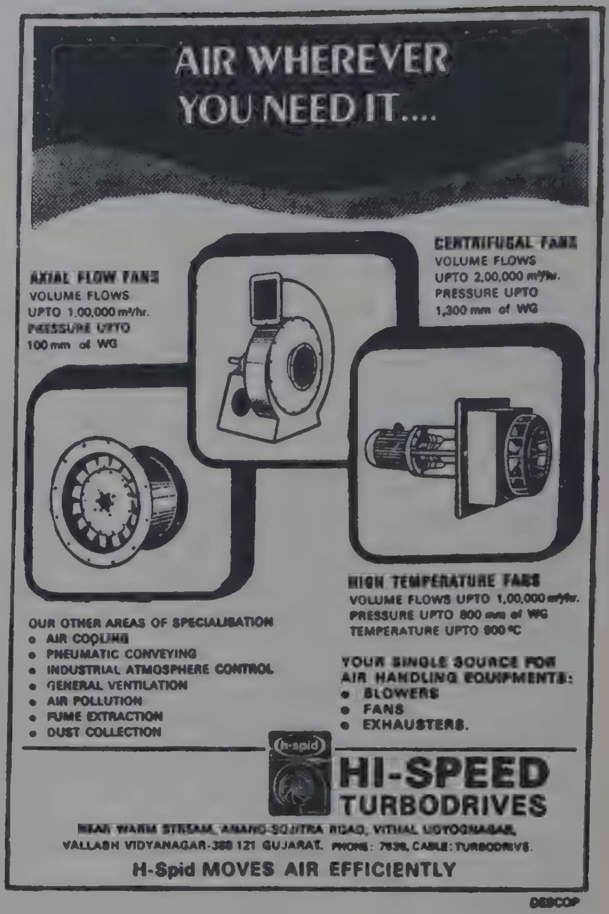
Caravan Fan Inds., P-24, Transport Depot Rd., Calcutta 700027.
Clyde Fan Co. Pvt. Ltd., Rai Bahadur Rd., Behala, Calcutta 700034.
G. T. R. Company Pvt. Ltd., 37, Dum Dum Rd., Calcutta 700030.
General Electric Co. of India Ltd., 6, Chittaranjan Ave., Calcutta 700013.
Jay Engineering Works Ltd., 183-A, Prince A. Shah Rd., Calcutta 700031.
Khaitan Fans Pvt. Ltd., 'Everest', 18th Flr., 46-C, Jawaharlal Nehru Rd., Calcutta 700071.
Marshall Sons & Co. (India) Ltd., 75-C, Park St., Calcutta 700016.
Modifan Inds., 55, Canning St., 3rd Flr., B Block, Calcutta 700001.
Orient General Ind. Ltd., 6, Ghori Bibi Lane, Calcutta 700054.
Panday Ind. Pvt. Ltd., 202/2, N. Subhas Rd., Calcutta 700047.
Polar Fan Inds., 51, Ezra St., Calcutta 700001.

FANS—INDUSTRIAL & BLOWERS

A. Stock & Co. Ltd., 3, Camac St., Calcutta 700016.
Air Conditioning Corp. Ltd., 17, Taratolla Rd., Calcutta 700053.
Air Control & Chemical Engg. Co. Ltd., Khetan Bhavan, 198, J. Tata Rd., Bombay 400020.
Almonard Pvt. Ltd., 4, Saki Vihar Rd., Bombay 400072.
American Refrigeration Co. Ltd., 13-C, Russell St., Calcutta 700071.
Andrew Yule & Co. Ltd., 8, Clive Rd., Calcutta 700001.
Bharat Electric & Engg. Corpn., 21, Dalal St., Bombay 400023.
C. Bhole & Co., 61, N. Dhuru St., Bombay 400003.
C. Doctor & Co. Pvt. Ltd., 11, Homi Mody St., Bombay 400023.
Durable Steel Products, 16/5, Mathura Rd., Faridabad 121003. (Haryana).
Duvent Fans Pvt. Ltd., Khaleel Shirzai Estate, 329, Pantheon Rd., Egmore, Madras 600008.
Electrical Products Corpn., Calcutta 700033.
Enviro Control Systems Pvt. Ltd., 13/1, Lavelle Rd., Bangalore 560001.
Flow Link Inds., 370, Jodhpur Park, Calcutta 700068.
Forge & Blower Co., Naroda Rd., Ahmedabad 380002.
G. T. R. Co. Pvt. Ltd., 37, Dum Dum Rd., Calcutta 700030.
General Electric Co. of India Ltd., Magnet House, 6, C. R. Avenue, Calcutta 700013.
Gupta Bakelite Factory, 220, Gala Basheshar, Subzi Mandi, Delhi 110007.
Herberts & Growers Engg. Co., 2, Ambalal Doshi Mrg., Opp. Share Bazar, Bombay 400023.
Hi-Speed Turbodrives. Near Warm Stream, Anand Sojitra Rd., Vithal Udyognagar 388121. (Kaira Dist), Gujarat.
Innova Engg. Pvt. Ltd., Plot 140, Marol Co-op. Indl. Estate, Marol, Bombay 400059.
La Vulcan Engrs., 96, L.B.S. Mrg., Opp. Union Bank, Vikhroli, Bombay 400079.
Lalvani Metal Works, Safed Pool, Kurla-Andheri Rd., Bombay 400072.
Mukul Industries, 103-B, Tejpauls Indl. Estate, Behind Tip Top Restaurant, Kurla Andheri Rd., Sakinaka, Bombay 400072.
Multi-Tech. Engrs. Pvt. Ltd., Fitwell Engg. Compd., 2nd Pokhran Rd., Thane 400606.
National Agricultural & Diesel Inds., 2, Errabalu Chetty St., Madras 600001.
New Standard Engg. Co. Ltd., NSE Estate, Goregaon East, Bombay 400063.
Nityas, 648, Mount Rd., Madras 600006.
Pullman Engg. Systems Pvt. Ltd., Rattan Inds. Compd., L. B. S. Mrg., Bhandup, Bombay 400078.
Radiant Engg. & Mfg. Works, Commerce Centre, Tardeo, Bombay 400034.
S. F. Products India Ltd., P. Box No. 411, Calcutta 700011.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Tero Sales, 86, Mahendra Chambers, 134-136, Dr. D. N. Rd., Bombay 400001.
Universal Engg. Works, B/2-4, Natal Estate, S. J. D'Souza Compd., Near Kamani Oil Mill, Bombay 400072.
Universal Fabrication & Blower Inds., Saki Vihar Rd., Saki Naka, Bombay 400072.
Wesman Engg. Co. Pvt. Ltd., 1/2, Allenby Rd., Calcutta 700020.
(Also see under "Air Circulator, Air Control Equipment, Exhaust Fans, etc.")

FASTENERS—INDUSTRIAL

Andhra Pradesh

SOL Fasteners Ltd., C-223, Al-Karim Trade Centre, M. G. Rd., Secunderabad 500003.
Screwmans, B. I. Unit, Ind. Estate, Vijayawada 520007.

Bihar

Bihar Fasteners Ltd., Katari Hill Rd., Gaya 823001.
Indian Steel & Wire Products Ltd., P. O. Indranagar, Jamshedpur 831008.

Delhi

Auto & General Engg. Co., 204, Okhla Indl. Estate, New Delhi 110020.

Gujarat

Aep Co., 108, GIDC Estate, Vithal Udyognagar 388121 (Kaira Dist.).
Industrial Fasteners of Gujarat Ltd., P. O. Maneja, Vadodara 390013.

Haryana

Jagatjit Engineering Works Pvt. Ltd., 17/6, Mathura Rd., Faridabad 121001.
Lakshmi Precision Screws Ltd., Hissar Rd., Rohtak 124001. (Haryana).
Sikands Ltd., 61, N.I.T., Faridabad 121001.
Sterling Tools Pvt. Ltd., Faridabad 121003.

Karnataka

Emcee Automatics, 32, Small Scale Ind. Area, 'V' Block, Rajajinagar, Bangalore 560010.
Reliance Fasteners Pvt. Ltd., 157, Indl. Town, Rajajinagar, Bangalore 560044.
Sri Venkateswara Enterprises, B-69, H.M.T. Ind. Estate, Bangalore 560031.

Maharashtra

A. A. Deghamwalla & Co. Pvt. Ltd., 58, Sarang St., Bombay 400003.
Agarwal Steel Ind., Military Rd., Marol, Bombay 400069.
Automat Engg. P. Ltd., 14A, Kurla Indl. Estate, Bombay 400086.
Avdel (I) Pvt. Ltd., Ramon House, Backbay Recl., Bombay 400020.
Bidco Studs Pvt. Ltd., Warden House, 2nd Flr., Sir P. M. Rd., Bombay 400001.
Bright Bolt Pvt. Ltd., Nanjee Bldg., 17-B, Horniman Circle, Bombay 400023.
Fit Tight Nuts & Bolts Ltd., Old Ashram, Andheri Kurla Rd., Andheri, Bombay 400069.
Gadag Forge Fils Pvt. Ltd., 18, Majithia Indl. Estate, W. T. P. Rd., Deonar, Bombay 400088.
Hindustan Steel Ind., 4, Govt. Ind. Estate, Kandivli West, Bombay 400067.
Industrial Components, Sun Mill Compound, Bombay 400013.
Manco Ind., Shed No. F, Sainath Ind. Estate, Off Aarey Rd., Goregaon East, Bombay 400063.
Pentagon Screws & Fasteners Ltd., Jayem House, 2nd Flr., 97/99, Bombay Samachar Mrg., Bombay 400023.
Precision Fasteners Ltd., 15, MIDC Indl. Area, Thane Belapur Rd., Kalwe, Thane 400601.
Precision Steel Fasteners, S. No. 209, Bombay-Pune Rd., Pimpri, Pune 411018.
Precision Taps & Dies Pvt. Ltd., 17, Gunbow St., Fort, Bombay 400001.
Sang Fasteners, Plot No. A-167, Wagle Estate, Thane 400604.
Sheth Mfg. Works, Rambaug, Vivekanand Rd., Bombay 400064.
Swastik Metal Ind., 168, C.S.T. Rd., Kalina, Bombay 400055.
Virani Fasteners & Bolts Pvt. Ltd., Maker Bhavan No. 2, New Marine Lines, Bombay 400020.

Orissa

S. N. Corpn., 5A, Satyanagar, Bhubaneswar 751007.

Punjab

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Tamil Nadu

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Rambal Pvt. Ltd., Lattice Bridge Rd., P.B. 1101, Madras 600041.
SHI Engrs., 46, Sidco Indl. Estate, Coimbatore 641021.
Southern Ind. Corpn. Ltd., 99, Armenian St., Madras 600001.
Sundaram Fasteners Ltd., Padi, Madras 600060.

West Bengal

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Ashok Traders, 2, India Exchange Place, 2nd Flr., Calcutta 700001.
Ashoka Mercantile Corpn., 10/1, Ganpat Rai Khemka Lane, Liluah 711204.
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M. S. Ind., P-10, New Howrah Bridge Approach Rd., Calcutta 700001.
Mahabir Steel Ind., 10/3, Alipur Park Place, Calcutta 700027.
Sajjan Ind. Corpn., P-18, New C.I.T. Rd. (Bina Estate), Scheme LVII, Calcutta 700012.
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Shree Krishna Pvt. Ltd., 20, Mangoe Lane, Calcutta 700001.
Shree Lakshmi Iron Co., 222, G. Ghosh Rd., P.O. Belurmath 711202, Howrah Dist.
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Steel & Allied Products Ltd., 2/1, Hussain Shah Rd., Calcutta 700023.
Thisa (I.) Pvt. Ltd., E-2, Gillanders House, Calcutta 700001.

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Hastings Mill Ltd. (Coir & Felt Dn.), 14, N. Subhas Rd., Calcutta 700001.
Porrits & Spencer (Asia) Ltd., Kanchenjunga, 18, Barakhamba Rd., New Delhi 110001.
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United Felts & Carpets, Udyog Bhavan, W. Hirachand Mrg., Bombay 400038.

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Ferro Alloys Corpn. Ltd., 46, A & B, MIDC Indl. Estate, Hingna Rd., Nagpur 440028.
Khandelwal Ferro Alloys Ltd., 79/87, D. Lad Path, Bombay 400033.
Moldex Inds., 187, Dr. D. Naoroji Rd., Bombay 400001.
Tata Iron & Steel Co. Ltd., New India Assurance Bldg., M. Gandhi Rd., Bombay 400023.
Universal Ferro & Allied Chemicals Ltd., Liberty Bldg., New Marine Lines, Bombay 400020.

Orissa
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Tamil Nadu
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Uttar Pradesh
Indian Thermit Corpn. Ltd., 84/22, Fazalganj, Kanpur 208012.

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Fertilisers & Ind. Corpn., Main Rd., Nidadavolu 534301, West Godavari Dist.
Godavari Fertilisers & Chemicals Ltd., 50, Sabastian Rd., Secunderabad 500003.
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Jayalakshmi Fertilisers, Venkatarayapuram, Tanuku 534211, West Godavari Dist.

Assam
Assam Agro Ind. Development Corpn. Ltd., Ulubari, Gauhati 781007.
Associated Industries (Assam) Ltd. (Chemical-Unit), P.O. Chandrapur 781550, Kamrup Dist.
Firtichem Ltd., Kannachal Rd., Silpukhuri, Gauhati 781003.

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Chemi Fertilisers, S. P. Varma Rd., Patna 800001.
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Indian Explosives Ltd., Himalaya House, 23, K. Gandhi Marg, New Delhi 110001.
Indian Farmers Fertiliser Cooperative Ltd., 34, Nehru Place, New Delhi 110019.
Japan Urea Centre, 7, Rajendra Place, New Delhi 110008.
Krishak Bharat Co-operative Ltd., Red Rose House, 49-50, Nehru Place, New Delhi 110019.
Mittal Fertilisers Ltd., 5/1, Roop Nagar, Delhi 110007.
Shriram Fertilisers & Chemicals, Kirti Mahal, 19, Rajendra Place, New Delhi 110008.

Goa
Zuari Agro Chemicals Ltd., P.O. Zuari Nagar 403726.

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Anil Starch Products Ltd., Anil Rd., Ahmedabad 380002.
Chemfert Products & Services, 296, GIDC, Makarpura, Vadodara 390001.
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Gujarat State Fertilisers Co. Ltd., P.O. Fertiliser Nagar 391750, Vadodara Dist.
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Karnataka
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Kerala
Fertilisers & Chemicals Travancore Ltd., P.O. Udyogamandal 683501.
South India Chemicals & Fertilisers Ltd., Manorama Bldg., Kottayam 686001.

Madhya Pradesh
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M.P. Agro Morarji Fertilisers Ltd., 170, Ravindranath Tagore Mrg., Indore 452001.
M.P. Chemical Corpn., 78, Navlakha Rd., Sanyogita Ganj, Indore 452001.

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BASF India Ltd., Maybaker House, S. K. Ahire Mrg., Bombay 400025.
Bharat Fertiliser Ind. Ltd., 12, Nanabhai Lane, Near Flora Fountain, Bombay 400023.
Bharat Laboratory & Biological House for Agriculture, Pandurang Smriti, Jambhale Nagar, Dhule 424001.
Borax Morarji Ltd., 84, Nariman Rd., Bombay 400020.
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Chembur Bone & Fertiliser Co. Pvt. Ltd., Darabshaw House, S. Vallabhdas Marg, Bombay 400038.
Deccan Sales Corpn. Ltd., Moray House, 226, S. V. Rd., Bandra, Bombay 400050.
Deepak Fertilisers & Petrochemicals Corpn. Ltd., 10-B, Bakhtawar, Nariman Point, Bombay 400021.
Dewa Fertilisers & Feeds Co. Ltd., Eucharistic Cong. Bldg., 5, Convent St., Bombay 400001.
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Fertilizer Corpn. of India Ltd., Trombay Unit, Chembur, Bombay 400074.
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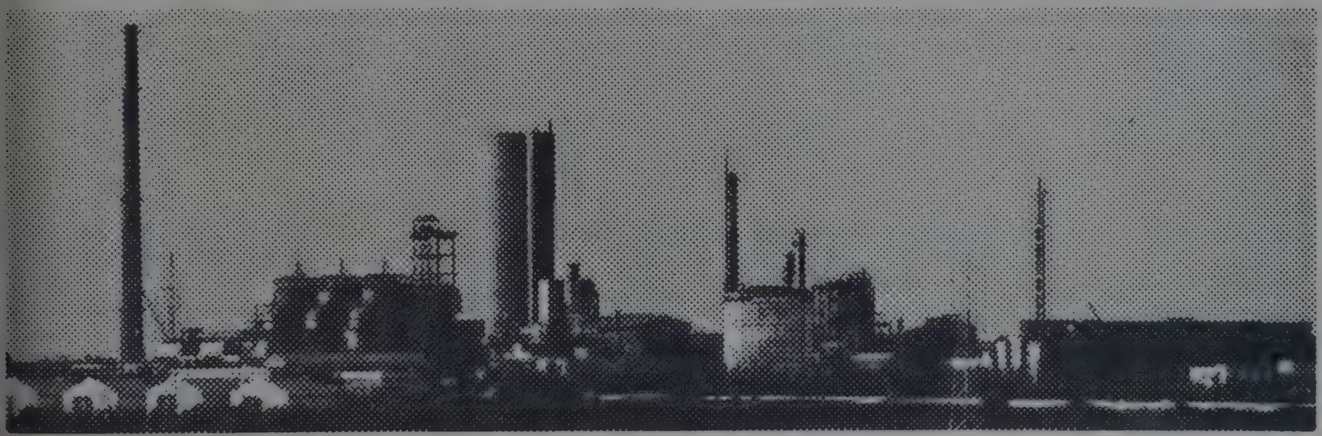

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Mulchand M. Choksey & Co., 19-21, Hamam St., Bombay 400001.

Pankaj Chemicals & Fertilisers, 211, Samuel St., Vadgadi, Bombay 400003.

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Rama Krishi Rasayan Ltd., Lonikalbhor 412201. Pune Dist.

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Shaw Wallace & Co. Ltd., 3, Walchand Hirachand Mrg., Bombay 400038.

Sunrise Manures & Chemicals, 813-14, Bhavani Peth, Pune 411002.

Voltas Ltd., 19, Graham Rd., Ballard Estate, Bombay 400038.

Orissa

Orissa Fertilisers & Chemical Ltd., Main Rd., Rourkela 769004.

Punjab

Northern India Fertilisers & Agri. Supply Corpn., 85, Sector 18-A. Chandigarh 160017.

Punjab National Fertilizers & Chemicals Ltd., SCO 119-20, Sec. 17-B, Chandigarh 160017.

Tridhara Krishi Sampada Pvt. Ltd., Fertiliser Division, 1290, Sector 21-B, Chandigarh 160017.

Rajasthan

Jeevan Fertilisers & Chemicals Co. Pvt. Ltd., 42, Large Scale Ind. Area, Kota 324003.

Rajasthan State Mines & Minerals Ltd., 133, Saheli Mrg., Udaipur 313001.

Udaipur Chemicals & Fertilisers Pvt. Ltd., Fatehpura, Udaipur 313001.

Tamil Nadu

Coimbatore Pioneer Fertilisers Ltd., Muthugoundanpudur (Via Sulur) 641402. (Coimbatore Dist).

E. I. D. Parry (India) Ltd., Dare House, P. B. 12. Madras 600001.

Indian Potash Ltd., 2/3, Pathari Rd., Off Mount Rd., Madras 600006.

Jai Bharat Chemicals & Fertilisers Co., 5–141, Mount Rd., Madras 600006.

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Krishna Ind. Corpn. Ltd., Ramakrishna Bldgs., 38, Mount Rd., Madras 600006.

Madras Fertilisers Ltd., Manali, Madras 600068.

Mysore Fertiliser Co., 'Lotus Court', 165, Thambu Chetty St., Madras 600001.

Peirce Leslie India Ltd., Race Course Rd., Coimbatore 641018.

Peninsular Bone Mill, 28–29, Coral Merchant St., Madras 600001.

Premier Fertilisers Ltd., 151, Mount Rd., Madras 600002.

Scientific Fertiliser Co. Pvt. Ltd., P. B. No. 744, Ponnurangam Rd., R. S. Puram, Coimbatore 641002.

Southern Petrochemical Ind. Corpn. Ltd., 24, Whites Rd., Madras 600014.

Sree Gayathri Agro Chemicals Pvt. Ltd., 86, Sunnambukara St., Tiruchirapally 620008.

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Uttar Pradesh

Indian Explosives Ltd., Fertiliser Divn., Post Box 267, Kanpur 208001.

Peoples Chemicals & Fertilizers Pvt. Ltd., M-26, Gole Mkt., Mahanagar, Lucknow 226006.

Sahu Chemicals & Fertilisers, Sahupuri, Varanasi 221009.

U.P. State Agro Ind. Corpn. Ltd., 22, Vidhan Sabha Marg Lucknow 226001.

West Bengal

A. Talukdar & Co. (Fertilisers) Pvt. Ltd., 15, Clive Row, Calcutta 700001.

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Cances Corpn., 97, Kutchery Rd., Mylapore, Madras 600034.
Candy Filters (India) Ltd., Mahalaxmi Chambers, B. Desai Rd., Bombay 400026.
Crystal Filter Co., 33–111, Natabar Paul Rd., Howrah 711101.
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Elofic Inds. Pvt. Ltd., Kashmere Gate, Delhi 110006.
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Gladwyn Engg. Co., 13-A, Kurla Indl. Estate, Ghatkopar, Bombay 400086.
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Hiper, Kothrud, Pune 411029.
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Shar-Lee Filotrites Pvt. Ltd., 52, Okhla Ind. Estate, New Delhi 110020.
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Sparkler Eastern Pvt. Ltd., 35, Chittaranjan Ave., Calcutta 700012.
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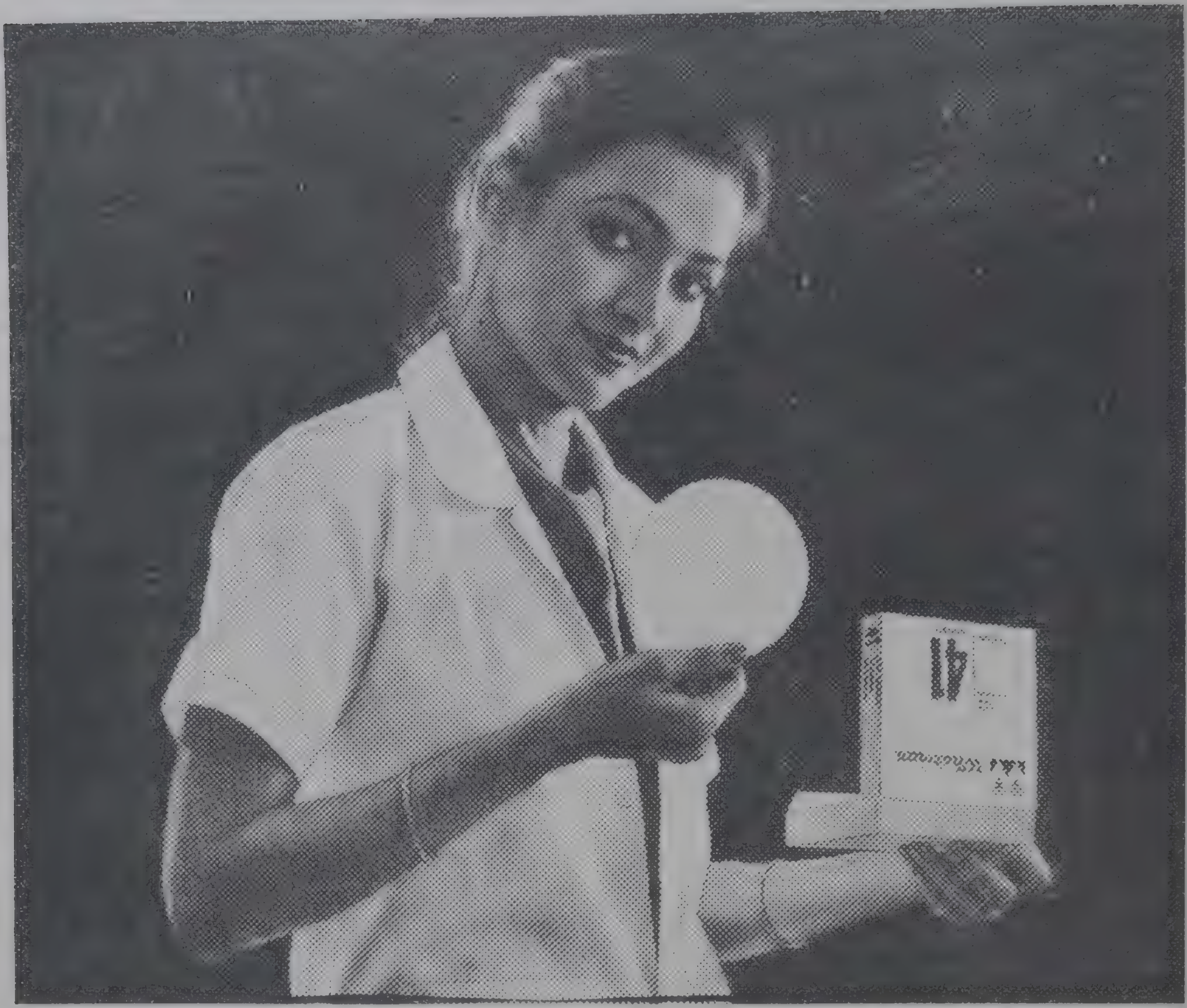
Sudarshan Electrical Inds. Pvt. Ltd., A-246, Wagle Indl. Estate, Thane 400604.
Tak Machinery Ltd., Jolly Maker Chambers No. 2, Nariman Pt., Bombay 400020.
Techno Economic Services Pvt. Ltd., Advani Chambers, 1st Flr., Sir P. M. Rd., Bombay 400001.
Tenacity Filters Pvt. Ltd., 21/6, Hadapsar Ind. Estate, Hadapsar, Pune 411013.
Whatman Ltd., 101, Mittal Chambers, 228, N. Point, Bombay 400021.
Yo-tana Machine Tools, C-1/10, G.I.C.D., Odhav, Ahmedabad 382415.

FIRE FIGHTING EQUIPMENT

Delhi

Delhi Garage Pvt. Ltd., Connaught Place, New Delhi 110001.
DGL Pvt. Ltd., 14-M Block, Connaught Cir., New Delhi 110001.
Indian Engrs., B69/2, Wazirpur Indl. Area, Delhi 110052.



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Gujarat

Abdul Samad Abdul Kadar & Sons, 1839, Panchpalli, Kalupur, Ahmedabad 380001.
Newage Ind., Ambawadi Ind. Estate, Surendranagar 363001.
Northern Alloys Foundry, No. 69, G.I.D.C. Chitra, Bhavnagar 364001.
Shah Bhogilal Jethalal & Bros., Gheekanta Rd., Near Liberty Cinema, Ahmedabad 380001.
Swastik Ind. Corpn., Udyognagar, Bhavnagar 364001.

Karnataka

Fire & Safety Equipments, 171, Commercial St., Bangalore 560001.
S. Ramu & Bros., 95-G, Dr. A. N. Kishna Rao Rd., Visweswarapuram, Bangalore 560004.

Kerala

Metropolitan Engg. Co., Power House, Trivandrum 695001.

Maharashtra

Anupam & Co., 536A, Netaji Subhas Rd., Mulund, Bombay 400080.
Apollo Fire Fighter, 121/21, S. Devji St., Bombay 400003.
Asia Engg. Co., 39, Nagdevi St., Bombay 400003.
Avon Services (Prod. & Agen.) Pvt. Ltd., Baldota Bhavan, 117, M. Karve Marg, Bombay 400020.
Bharat Engg. Works, 10, Marine Chambers, 43, New Marine Lines, Bombay 400020.
Bharat Textile Ind., 4th Lane, Darukhana, Bombay 400010.
Bharati Fire Engrs., 3/6, Anupam Ind. Estate, L.B.S. Mrg., Bombay 400080.
Cease Fire Safety Engrs. Pvt. Ltd., Mohamedi House, Mohamedali Rd., Bombay 400003.
CME Inds. Ltd., Fire Protection Dn., 97, Maker Tower "F", Cuffe Parade, Colaba, Bombay 400005.
Co2 Fyr Fyter Co., 15, Navjivan Soc., Bhadkamkar Marg, Bombay 400007.
Essofaly Mohamedaly & Co., 102-A, Sarang St., Bombay 400003.
Fire Equip. Corpn., 166, Dr. D. N. Rd., Bombay 400001.
Fire Protection Systems, 7/3, Five Stars, Bund Garden Rd., Pune 411001.
Hiren Industrial Corpn., Post Box No. 7255, Rajawadi, Opp. State Bank, Ghatkopar East, Bombay 400077.
Indian Fire Engg. Co., National Library Bldg., S. Vivekanand Rd., Bombay 400050.
Indian Fire Equip. Corpn., 79, Mohamedi House, Mohamedali Rd., Bombay 400003.
Industrial Com. Corpn., 157, N. Dhuru St., Bombay 400003.
Infire, National Library Bldg., S. V. Rd., Bombay 400050.
Jainco Ind., 64, Nizam St., Bombay 400009.
Jay Nit Engg. Co., Milan Indl. Estate, Unit No. 3/21, Off T.J. Rd., Cotton Green, Bombay 400033.
Joseph Leslie Agencies Pvt. Ltd., Apeejay House, 130, Apollo St., Bombay 400023.
Josh Fire Fighting Equipments Pvt. Ltd., B-6, Ind. Estate, Road A, St. 3, Satpur, Nasik 422007.
Kooverji Devshi & Co. Pvt. Ltd., 105, Arun Chambers, Tardeo Rd., Bombay 400034.
Laxmi Sprinklers, Kalachowki Rd., Bombay 400033.
M. I. Ansari, 36-38, Islampura Crosslane, Bombay 400004.
Mather & Platt Ltd., 8, Graham Rd., Ballard Estate, Bombay 400038.
Minimax Ltd., Janmabhoomi Chambers, W. Hirachand Mrg., Bombay 400001.
Monsher Fire Controls Pvt. Ltd., 508, Dalamal Towers, N. Point, Bombay 400021.
National Fire Equip. Co., 11, Bank St., Bombay 400023.
Necet Trading Corpn. Pvt. Ltd., 94, Nagdevi St., Bombay 400003.
New Engg. Corpn., 91, Nagdevi Crosslane, Bombay 400003.
Oriental Metal Pressing Works Pvt. Ltd., 131, Worli, Bombay 400018.
Peter Autokits P. Ltd., Mathuradas Vasanji Rd., Makvana Lane, Marol Naka, Andheri (E), Bombay 400059.
Pioneer Equipment Co. Pvt. Ltd., Khira Indl. Estate, Transport Rd., Bombay 400054.
Radiant Fire Protection Engrs., 818, Parekh Market, 39, Kennedy Bridge, Bombay 400004.
Ravi Inds. Pvt. Ltd., Naupada, LBS Mrg., Thane 400602.
Safex Fire Services, 202-A, Dhanraj Ind. Estate, Sun Mill Rd., Bombay 400013.
Subtronics, Kaliandas Udyog Bhavan, 147, Near Century Bazar, Worli, Bombay 400025.
Supremex Equipments, D-2/A, Ghatkopar Ind. Estate, LBS Mrg., Bombay 400086.
Swastik Industrial Corpn., 19, Hamam St., Bombay 400001.
United Engg. Co., 67-69, Mohamedali Rd., Dada Manzil, Bombay 400003.
Universal Fire Equipment Corpn., 101, Champaklal Ind. Estate, Sion East, Bombay 400022.
Vijay Fire Protection Systems P. Ltd., 35, Chandivali Village, Bombay 400072.
Weweld Regulator Co., 33, Shethi Ind. Estate, 10E, Suren Rd., Andheri East, Bombay 400093.
Zenith Fire Services, 127/129, Mody St., Bombay 400001.

Tamil Nadu

Fyrkool Pvt. Ltd., 41, Thambu Chetty St., Madras 600001.
Roberts Mclean & Co. Ltd., 32-B, Greams Rd., Madras 600006.

West Bengal

Annapurna Metal Works, Tijala, Calcutta 700039.
Indian Metal Ind., 9, Bonefield Lane, Calcutta 700001.
K. K. Bose & Co., 27/1B, Simla Rd., Calcutta 700006.
Machine & Mill Stores Corpn., Pvt. Ltd., 76/19, Benaras Rd., Howrah 711101.
Roberts Mclean & Co. Ltd., 27-B, Camac St., Calcutta 700016.

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Sur Enamel & Stamping Works Pvt. Ltd., 24, Dr. M. L. Bhattacharya Rd., Entally, Calcutta 700014.
Surex Sales Pvt. Ltd., P-14, C.I.T. Rd., Calcutta 700014.
Zenith Industrial Equipments, 14/1/1A, Jackson Lane, Calcutta 700001.

FLASHLIGHTS & TORCH LIGHTS

Delta Flashlites, ER-30, Inderpuri, New Delhi 110012.
Flash Light India Pvt. Ltd., 135, Princep St., Calcutta 700013.
Geep Inds. Syndicate Ltd., 28, South Rd., Allahabad 211001.
Govindson Enterprise, 59, Evergreen Indl. Estate, Mahalaxmi, Bombay 400011.
Metal India Inds., 3, Saki Naka, Bombay 400072.
Sen Bros. Pvt. Ltd., 3, Amartolla St., Calcutta 700001.
Union Carbide India Ltd., 1-3, Brabourne Rd., Calcutta 700001.
United Flashlight Ind. Pvt. Ltd., 14/2, Old China Bazar St., Calcutta 700001.

FOOD PROCESSING & CANNING MACHINERY

A. P. V. Engg. Co. Pvt. Ltd., 2, Jessore Rd., Calcutta 700028.
Industrial Gases Ltd., Industrial Cryogenic & Chemical Plants Dn., 15, G. C. Ave., Calcutta 700001.
Larsen & Toubro Ltd., L & T House, Ballard Estate, Bombay 400038.
Mather & Greaves Ltd., Chinchwad, Pune 411019.
Mather & Platt Ltd., 8, Graham Rd., Ballard Estate, Bombay 400038.
Raylons Metal Works, Kondivita Lane, J. B. Nagar, Andheri East, Bombay 400059.
Universal Mechanical Work [illegible] 112, Lower Parel, Bombay 400013
Vacuum Plant & Instrument Mfg. Co. Pvt. Ltd., Mundhwa, Pune 411036
Vitro Pharma Products Pvt. Ltd., 89, Ind. Estate, Kandivli, Bombay 400067.
Vulcan Laval Ltd., Mustafa Bldg., 7-A, Sir P. Mehta Rd., Bombay 400001.

FOODS—FISH & MEAT CANNING

Andhra Pradesh

Fish Products Ltd., Jagannaickpur, Kakinada 533002.
Universal Sea Foods Pvt. Ltd., Sulurpeta 524121.

Goa

Goa Exotic Canners & Freezers, Rue Jose Falcao, Panaji 403001.
Konkan Fisheries Pvt. Ltd., Marmugao 403803.

Kerala

Canning Ind. (Cochin) Ltd., Trichur 680005.
Choice Canning Co., P.O. Box 325, Cochin 682002.
High Seas Fishing Enterprises, 28/825, Kochupalli Rd., Thoppumpady, Cochin 682005.
Malabar Marines, 14/1455, Thoppumpady, Cochin 682005.
Sea Food Exporting Co., 634, Pilithottam, Quilon 691006.
Tata Oil Mills Co. Ltd. (Fisheries Div.), Karuvelipadi, Cochin 682005.
West Coast Sea Foods, 18/366, Kochangadi, Cochin 682002.

Maharashtra

A. Kalvert & Co., 90, Mazagon Rd., Bombay 400010.
Castlerock Fisheries (Bombay), Dalamal Chambers, New Marine Lines, Bombay 400020.
James Smith & Co., 9-A, Jakaria Bunder Rd., Bombay 400015.
Pure Products & Madhu Canning Ltd., Sion Trombay Rd., Bombay 400084.

Tamil Nadu

Eastern Seafoods Exports Pvt. Ltd., Ennore Coastal High Rd., Madras 600019.

Indo Marine Agencies (Tamil Nadu), 45, M. Labhai St., Madras 600011.
Southern Seafoods Pvt. Ltd., 15, Montieth Rd., Madras 600008.

FOODS—FRUIT & VEGETABLE CANNING

Andhra Pradesh

Govt. Fruit Preservation Factory, Anantharajupeta 516105. Cudappah Dist.
Krishna Fruit Products Ltd., Eenad Compd., Somajiguda, Hyderabad 500004.
Rai & Sons Pvt. Ltd., Juice Lane, Kukatpalli, Hyderabad 500037.

Delhi

Ambrosia Food & Canning Ind., 51-B, Rampur Marg Indl. Area, New Delhi 110035.
Depro Foods Ltd., A-61, Amar Colony, Lajpat Nagar, New Delhi 110024.
Edward Keventers Pvt. Ltd., S. Patel Rd., New Delhi 110011.
Essex Farms Pvt. Ltd., 4, Mehrauli Rd., New Delhi 110030.
Excelsior Food & Chemical Ind., 4, Paharganj Lane, New Delhi 110055.
Food Specialities Ltd., M-5A, Connaught Circus, New Delhi 110001.
Midland Fruit & Veg. Products India Ltd., Okhla Ind. Estate, New Delhi 110020.
Northland Inds., B-47, Rampura Marg, New Delhi 110035.

Goa

Chowgule & Co. Hind Pvt. Ltd., Margao 403601.
Costa & Co. Pvt. Ltd., P.B. No. 16, Margao 403601.
Goa Food Products Ltd., Margao 403601.
Virginkar Food Inds. Pvt. Ltd., Rua Inacio Loyola, Margao 403601.

Gujarat

Roreick & Co. Ltd., Roreick House, Modi South, Nadiad 387001.

Himachal Pradesh

Himachal Pradesh Fruit Canning Unit, Naubahar, Shimla 171002.
Mohan Meakin Breweries Ltd., Solan 173212.
Solan Food Products Pvt. Ltd., Solan 173212.

Jammu & Kashmir

Kay Food Preservers & Canners, Moti Bazar, Srinagar 190001.
Tulip Products, Ind. Estate, Barzulla, Srinagar 190001.

Karnataka

Can Can Food Products, 14/1, Srinivasa Colony, Bangalore 560027.
Kissan Products Ltd., Old Madras Rd., Bangalore 560016.
Kwality Food Products, Mysore Rd., Bangalore 560026.
Mysore Food Processing & Canning Co. Pvt. Ltd., 70, Charles Campbell Rd., Bangalore 560023.
Vita Food Products, Mysore Rd., Bangalore 560026.

Kerala

Ashiana Greens & Foods Ltd., Cannanore 670001.
Kaycee Plantations & Canning Co., High Rd., Trichur 680001.
Midland Fruit & Vegetable Products (India) Ltd., Punalur 691305.
Parur Canning Ind. Pvt. Ltd., Parur 683513.

Maharashtra

A. Kalvert & Co., 90, Mazgaon Rd., Bombay 400010.
Anand Canning Ind. Pvt. Ltd., Regent Chambers, Nariman Point, Bombay 400021.
Asian Dehydrates Ltd., 40, Police Court Lane, Bombay 400001.
Bombay Foods Pvt. Ltd., Khatau Chawl, Haines Rd., Bombay 400011.
Chitale Agricultural Products Ltd., 635/63-64, Vijayanagar Colony, Pune 411002.
Corn Products Co. (I) Pvt. Ltd., Shreenivas House, Waudby Rd., Bombay 400001.
D. & P. Products Pvt. Ltd., Agra Rd., Bhandup, Bombay 400078.
Dr. Writer's Chocolate & Canning Co., B. Shankar Rd., Bombay 400028.
Herbertsons Ltd., Ewart House, Homi Mody St., Bombay 400023.
M. M. Poonjiajee & Co., 42, First Marine St., Bombay 400002.
Nilon's Foods Pvt. Ltd., Post Box 119, Jalgaon 425001.
Pure Products & Madhu Canning Ltd., Sion--Trombay Rd., Bombay 400088.
Tim Tom Food Products, Shantinagar, Vakola, Bombay 400055.
Weikfield Products Co. (I), 116, Koregaon Park, Pune 411001.

Orissa

Orissa Fruit Products Ltd., Ind. Estate, Cuttack 753001.

Punjab

Food Specialities Ltd., Ludhiana-Ferozpur Rd., Moga 142001.
Markfed Canneries, P.B. No. 122, Jullundur 144001.

Tamil Nadu

Delican Pvt. Ltd., 100, P. High Rd., Madras 600010.
Dollar Food Corpn., 42, Mount Rd., Guindy, Madras 600032.
Favourite Food Products, 27/3-28, R. Pillai St., Ramavarmapuram, Nagercoil 629001.
Kodai Fruit Products Co., Indira Anandgiri, Kodaikanal 624102.
Madras Food Products Co. Pvt. Ltd., Ambattur, Madras 600058.
Sri Ganeshram & Co., 51, T. Chetty St., Madras 600001.

Uttar Pradesh

Allahabad Canning Co., Bamrauli, Allahabad 211001.
Canners (India) Ltd., A-7, Nirala Nagar, Lucknow 226007.
G. G. Ind., Belanganj, Agra 282001.
Healthways Food Products Co., 86, Factory Area, Kanpur 208001.
Kissan Products Ltd., Rural Indl. Estate, Bhojeepatra, Bareilly 243001.
Mohan Meakin Breweries Ltd., Mohan Nagar, Ghaziabad 201007.
Spencer & Co. Ltd., G. T. Rd., Kanpur 208001.
U.P. Fruit Products Pvt. Ltd., Bara Bazar, Bareilly 243001.
U.P. State Agro Indl. Corpn. Ltd., Processed Foods Div., 22, Vidhan Sabha Marg, Lucknow 226003.

West Bengal

Alpha Food & Chemical Pvt. Ltd., 142, B. Shah Rd., Calcutta 700053.
Amjadia Food Products Ltd., 7/2, Amratola Lane, Calcutta 700001.
Daw Sen & Co. Pvt. Ltd., 29, S. Sarkar Rd., Calcutta 700014.
Farm & Fruit Products Pvt. Ltd., 71/A, Chakraberia Rd., Calcutta 700020.
I.T.C. Ltd. (Foods Div.), 37, Chowringhee, Calcutta 700016.
Kalyanpur Canning Corpn., C/3, Gillander House, N. Subhas Rd., Calcutta 700001.
Mays Fruit Ind., 36, Mott Lane, Calcutta 700013.
Mida & Co. Pvt. Ltd., 33, Canning St., Calcutta 700001.
Mitter Sircar & Co., 68, Serpentine Lane, Calcutta 700014.
Reckitt & Colman of India Ltd., B. Roy Rd., Behala, Calcutta 700008.
Tims Products Ltd., Nimta Rd., Belgharia, Calcutta 700056.
Tulip Products Co., 37, Imdadali Lane, Calcutta 700016.
United Fruit Preserving Co., 31, Mott Lane, Calcutta 700013.

FOODS—PROCESSED

Andhra Pradesh

RTE Processed Food Factory, Nacharam Indl. Area, Hyderabad 501507.

Karnataka

Bolsts Indian Condiments Pvt. Ltd., 9, Ashley Park Rd., Bangalore 560001.
Karnataka Agro Inds. Corpn. Ltd., P. O. Box No. 2478, Hebbal, Bangalore 560024.

Maharashtra

Allied Fruit Products, Unit 102, Allied Ind. Estate, M. C. Cross Rd., Mahim, Bombay 400016.
Dr. Writer's Chocolates & Canning Co., Bhavani Shankar Rd., Bombay 400028.
Duke & Sons Pvt. Ltd., 2-A, Khetwadi Main Rd., Bombay 400004.
Herbertsons Ltd., Ewart House, Homi Mody St., Bombay 400023.

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5. D-19, MIDC Area, TARAPUR. *Telephone:* 548 & 549.
6. A-27, Balanagar Assisted Pvt. Industrial Estate, Hyderabad 500 037. *Telephone :* 263169.

Hindustan Cocoa Products Ltd., Cadbury House, B. Desai Rd., Bombay 400026.
Indian Vegetable Products Ltd., Forbes Bldg., C. Rai Marg, Bombay 400001.
K. T. Kubal & Co. Pvt. Ltd., 50, Nimbkar Marg, Bombay 400008.
Ketkar Brothers, D. Harganga Mahal, Khodadad Circle, Bombay 400014.
Merwanjee Poonjiajee & Sons Pvt. Ltd., Poonjiaji Bldg., Princess Dock, Frere Rd., Bombay 400009.
Pure Food Products, 43, Navandawan Ind. Estate, Mulund West, Bombay 400080.
Shingole Processed Foods Pvt. Ltd., 636/6, Vijayanagar Colony, Pune 411030.
Union Trdg. Co. (Bombay) Pvt. Ltd., 5, Graham Rd., Ballard Estate, Bombay 400038.
V. P. Bedekar & Sons Pvt. Ltd., Mugbhat Lane, Bombay 400004.

FOODS—PROTEIN

Andhra Pradesh

Modern Proteins Ltd., Plots 1-12, Ind. Estate, Kurnool 518003.

Delhi

Hindustan Milkfood Mfrs. Ltd., Himalaya House, 23, K. Gandhi Marg, New Delhi 110001.
Modern Bakeries (I) Ltd., Vasant Vihar, C-8, Paschimi Marg, New Delhi 110057.
Nestle's Products (I) Ltd., Link House, M-5A. Connaught Place, New Delhi 110001

Gujarat

Kaira Dist. Co-op. Milk Producers' Union Ltd., Anand 388001.

Karnataka

Mysore Snacks Foods Ltd., 19, Platform Rd., Bangalore 560023.

Maharashtra

Britannia Inds. Ltd., Nirmal, Nariman Point, Bombay 400021.
Corn Products Co. (I) Pvt. Ltd., Shreeniwas House, Waudby Rd., Bombay 400001.
Hindustan Cocoa Products Ltd., Cadbury House, B, Desai Rd., Bombay 400026.
Parle Products Mfg. Co. Pvt. Ltd., Belvandi House, Dr. A. B. Rd., Bombay 400025.

Punjab

Jagatjit Ind. Ltd., P. O. Jagatjit Nagar 144802. Kapurthala Dist.

Tamil Nadu

Cocoa Products & Beverages Ltd., Mount Poonamallee High Rd., Manapakkam, Madras 600089.
Raptakos Brett & Co. Pvt. Ltd., 27/39, Velacheri Rd., Madras 600020.
Spencer & Co. Ltd., 153. Mount Rd.. Madras 600002.

FOOTWEAR—LEATHER

Andhra Pradesh

Craftmen Footwear, 1-4-747, Musheerabad, Hyderabad 500048.

Haryana

Liberty Footwear Co., Liberty House, Rly. Rd., Karnal 132001.

Maharashtra

Ameeta Arts International, Rawji Sojpal Bldg., S. K. Bole Rd., Bombay 400028.
Camy Leather Inds., 289, Ebrahim Rahimtoola Rd., Bombay 400009.
Carona Sahu Co. Ltd., 221, Dr. D. Naoroji Rd., Bombay 400001.
Dawood & Co., Kerawala Mansion, Carnac Rd., Bombay 400002.
Goldwyn Leather Works, Sitaram Bldg., Dr. D. Naoroji Rd., Bombay 400001.
Libra Footwears Pvt. Ltd., 2-F, Court Chambers, 35, New Marine Lines, Bombay 400020.
S. Parkash & Bros., R. No. 18, 1st Flr., 27, Jamboolwadi, Bombay 400002.
Sarvodaya Women's Indl. Co-op. Soc. Ltd., Amin Nursery, Arthur Rd., Bombay 400034.

Punjab

Bagarian Shoes Ltd., SCO Nos. 117-118, Sector 17-B, Chandigarh 160017.

Tamil Nadu

Chrome Leather Co. Pvt. Ltd., P.O. Chromepet 600044, Chingleput Dist.
Metro Dawood Shoes Pvt. Ltd., 842, Anna Salai, Madras 600002.
New Great Shoe Co., 1-C, Naval Hospital Rd., Periamet, Madras 600003.
South East Footwear Pvt. Ltd., 5-C, Naval Hospital Rd., Madras 600003.
United India Shoe Corpn., 18/A, Vepery High Rd., Madras 600003.

Uttar Pradesh

Agra Footwear Co-op. Syndicate, Hing ki Mandi, Agra 282001.
Baluja Footwear Co., Tikonia Bazar, Agra 282003.
Caxton Footwear Co., Shoe Market, Agra 282003.
Premier Shoe Co., Sadar Bhatti, Agra 282001.

West Bengal

Bata Shoe Co. Pvt. Ltd., Batanagar 743313.
Bensen Ind.. 96. Sri Aurobindo Rd., Salkia, Howrah 711106.
Glace Kid (India) Ltd., 22-1, Gorachand Rd., Calcutta 700001.
Trot Shoe Co. Pvt. Ltd., 19/4, A, Munshiganj Rd., Calcutta 700023.

FOOTWEAR—PLASTIC

Delhi

Avon Footwear Ind. Pvt. Ltd., 93-B, Mayapuri Phase I, New Delhi 110027.
Goel Plastics Pvt. Ltd., 2, Ind. Area, Kirti Nagar, New Delhi 110015.
Mohan Enterprises, 1, Ind. Area, Tilak Nagar, New Delhi 110018.
Saco Rubbers Pvt. Ltd., 10, West Ave. Rd., Punjabi Bagh, New Delhi 110026.

SVIK (India), Plot 45/3, Indl. Area Site IV, Sahibabad, New Delhi 110024.

Karnataka

Bali Footwear & Plastics, Smith Indl. Estate, Shed 10, 8th Main, 3rd Block, Sarjapur Rd., Moramangla, Bangalore 560034.

Maharashtra

Bharat Swiss Footwear Co. Pvt. Ltd., Merchant Chambers, 41, New Marine Lines, Bombay 400020.
Carona Sahu Co. Ltd., 221, Dr. D. Naoroji Rd., Bombay 400001.
Chowdhary Enterprises, 203, A to Z Ind. Estate, Fergusson Rd., Lower Parel, Bombay 400013.
Mercantile Plastics Pvt. Ltd. 38, Nandanvan Ind. Estate, Agra Rd., Mulund, Bombay 400080.
Pilky Footwear Co. Pvt. Ltd., Churchgate Chambers, New Marine Lines, Bombay 400020.
Swastik Inds., Ram Baug, S. Vivekanand Rd., Malad, Bombay 400064.

Uttar Pradesh

Foreign Exporters & Mfrs., A/3, Ind. Estate, Loni Rd. No. 2, Opp. Mohan Nagar, Ghaziabad 201001.

FOOTWEAR—RUBBER

Ahuja Rubber Works, 17—13, Guru G. S. Marg, N. Rohtak Rd., New Delhi 110005.
Bata Shoe Co. Pvt. Ltd., 30, Shakespeare Sarani, Calcutta 700017.
Bhattacharya Rubber Works Pvt. Ltd., Jessore Rd., Calcutta 700055.
British India Corpn. Ltd., Sutherland House, Kanpur 208001.
Carona Sahu Co. Ltd., 221, Dr. D. Naoroji Rd., Bombay 400001.
Dynamic Rubber & Plastic Pvt. Ltd., Whitefield Rd., Mahadevapura, Bangalore 560048.
Enkay India Rubber Co., 156-D, Kamala Nagar, Delhi 110007.
Frontier Rubber Factory, 1-F/41-B.P., N.I.T., Faridabad 121001. (Haryana).
Globe Rubber Inds., 70/10, Rabindra Sarani, Calcutta 700073.
Godavari Rubber Inds. Ltd., P. Box 52, Rajahmundry 533101 (A.P.).
Grover Rubber Ind. Pvt. Ltd., Kottayam 686001 (Kerala).
Lakhani Footwear, Plot 110-111, Sector 24, Faridabad 121005. (Haryana).
Lotus Rubber Ind., Marve Rd., Malad, Bombay 400064.
Oriental Rubber Works Ltd., 171-A, M. Gandhi Rd., Calcutta 700007.

FORGINGS & STAMPINGS

Ajay Forgings Pvt. Ltd., 5-A, Industrial Estate IV, Sahibabad 201001. U.P.
Associated Manufacturer & Industries Corpn., 3A, Garstin Place, Calcutta 700001.
Bharat Forge Co. Ltd., Mundhwa, Pune 411036.
Bombay Forgings Pvt. Ltd., Vidyanagri Marg, Kalina, Bombay 400029
Bombay Metal Forging Works, 5, Udyognagar, S. V. Rd., Goregaon West, Bombay 400062.
Business Combine Ltd., Plot 16, MIDC Indl. Estate, Satpur, Nasik 422007.
Chaudhry & Sons (Forgings) Pvt. Ltd., Lal Kuen, G. T. Rd., Ghaziabad 201001. U.P..
Damehra Steels & Forgings Pvt. Ltd., 95, Memonwada Rd., Bombay 400003.
Dynamatic Forgings Pvt. Ltd., A-1/3, Ajit Indl. Estate, Rajkot 360003.
Echjay Inds. Pvt. Ltd., Kanjur Marg, Bombay 400078.
El Forge Ltd., 1, Ramachandra Rao Rd., Madras 600004.
Ellore Engg. Co. Ltd., Thiruneermala Rd., Chromepet, Madras 600044.
Forge & Forge Pvt. Ltd., Ahmedabad Rd., Rajkot 360003.
Forgings Products of India, L. B. S. Mrg., Vikhroli, Bombay 400082.
Golden Iron & Steel Works, 7/19, Kirtinagar Ind. Area, New Delhi 110015.
Hakimrai Jaichand Forgings Pvt. Ltd., United Bank of India Bldg., Sir P. M. Rd., Bombay 400001.
Hanuman Forging Inds., 134/1, M. Gandhi Rd., Calcutta 700007.
Hind Forgings Pvt. Ltd., 53, Netaji Subhas Rd., Calcutta 700001.
HS Engg. & Marketing Services, 607, Raheja Centre, 213, N Point, Bombay 400021.
India Forgings Co., 4, Black Burn Le., Calcutta 700012.
Indian Metal Forgings, P. Box No. 7148, Wadala, Bombay 400031.
Jai Forgings & Stampings Pvt. Ltd., Jai Rd., Yamunanagar 135001. (Haryana).
Kalyani Steels Ltd., Mundhwa, Pune 411036.
Karnataka Forgings & Stampings Pvt. Ltd., E-7/2, Unity Bldg., J. C. Rd., Bangalore 560002.
Kisaan Engg. Works Pvt. Ltd., 15, G. T. Rd., Ghaziabad 201001. U.P.
Madras Forgings & Allied Inds. (Coimbatore) Ltd., Mettupalayam Rd., Karamadai 641104. Coimbatore Dist., T. Nadu.
Mechano Forgings, 273/75, Gorapdeo Rd., Mazgaon, Bombay 400010.
Metal Forgings Pvt. Ltd., B-1, Mayapuri Indl. Area, New Delhi 110064.
Monji Shamji & Sons, Tokershi Jivraj Rd., Bombay 400015.
N. Ratilal & Co., Darukhana, Oza Market, Mazgaon, Bombay 400010.
Nayar Forgings Pvt. Ltd., 57-A, Main Rd.,, Whitefield, Bangalore 560060.
Padmyth Forge, B-7, HMT Indl. Estate Kalamassery 683003. Kerala State.
Padmyth Forge, B-7, HMT Indl. Estate, Kalamassery 683003, 110064.
Punjab United Forge Ltd., 324, Sector 9-D, Chandigarh 160009.
Ramnath Metal Forgings, S-29, Ind. Estate, Guindy, Madras 600032.
Renault Engg Works, 180, Quay St., Darukhana, Bombay 400010.
Sharda Forging & Stamping Pvt. Ltd., 878-A, East Park Rd., Karol Bagh, New Delhi 110005.
Shardlow India Ltd., Huzur Gardens, Sembiam, Madras 600011
Techno-Forge Co. Pvt. Ltd., 98, Surat St., Bombay 400009.
Telac Plants & Equipments Pvt. Ltd., Mount Poonamallee Rd., Ramapuram, Madras 600089.
Trinity Forge Pvt. Ltd., 108/H, Bharati Niwas Colony, Erandwana, Pune 411004.
Universal Forgings, 7-3-719, Rashtrapati Rd., Secunderabad 500003.
Vijayakumar Forgings, Vellakinar Rd., P.O.G.N. Mills, Coimbatore 641029
Viscorts Forge Ltd., 78-B, Dr. A. Besant Rd., Worli, Bombay 400018.

FORK LIFT TRUCKS

(See under Material Handling Equipment).

FOUNDRY EQUIPMENT & MATERIALS

Atlas Automotive Components, MIDC, Chinchwad, Pune 411019.
Bharat Techno Mechanical Industries Pvt. Ltd., Maneklal Rd., Navsari 396445, Valsad Dist.
Eltron India, B-18, 13 St., No. 9, MIDC, Bombay 400093.
Ferro Metals Corpn., 32, Second Flr., 2nd Bhoiwada, Bombay 400002.
FMC Engg. Works Pvt. Ltd., Sonal Ind. Estate, Off Saki Vihar Rd., Bombay 400072.
Foundry Accessories, 7, Hem Prakash, 90–92, Kazi Syed St., Bombay 400003.
Gargi Industries, 2, Mercantile Apartments, Opp. Basant Studio, Chembur, Bombay 400074.
Hindustan Equipment Co., Billichi, Coimbatore 641019.
Inductocast Foundry Pvt. Ltd., 14, K. M., Old Madras Rd., Bangalore 560049.
Mysore Malleable Casting Corpn., 2, Lalbagh Fort Rd., Bangalore 560004.

New Standard Engg. Co. Ltd., Mewar, 40-A, Peddar Rd., Bombay 400026.

Pullman Engg. System Pvt. Ltd., Rattan Inds. Compd., L.B.S. Mrg., Bhandup, Bombay 400078.

Richardson & Cruddas (1972) Ltd., Byculla Iron Works, Bombay 400008.

Specific Equipment Inds., 144, Al Karim Trade Centre, Raniganj, Secunderabad 500003.

Wesman Engg. Co. Ltd., Satnam Sagar, Peddar Rd., Bombay 400026.

FRANKING MACHINES

Armcess Engg. Pvt. Ltd., A-8 & 9, Ind. Est., Guindy, Madras 600032.

FUEL INJECTION EQUIPMENT

Aeicorp Pvt. Ltd., 10, Lall Bazar St., Calcutta 700001.

D'Engg. Pvt. Ltd., Gopal Bagh, Avanashi Rd., Coimbatore 641018.

Eagle Engg. Co., 35, Chittaranjan Ave., Calcutta 700012.

Fuel Injections Ltd., Chitalsara-Manpada, Thane 400601.

Ghadge Inds., 460, Ghorpade Peth, Pune 411002.

HTC Fuel Injection Pvt. Ltd., Plot 33, Govt. Indl. Estate, Kandivli West, Bombay 400067.

Machinery Agencies, 3, Mangoe Lane, Calcutta 700001.

Motor Industries Co., Ltd., Hosur Rd., Adugodi, Bangalore 560030.

FURNACES

Delhi

Advance Furnaces & Control, B-50, Mayapuri Phase I, New Delhi 110064.

Simplicity Engrs. Pvt. Ltd., 7, Basant Lok, Vasant Vihar, New Delhi 110057.

Gujarat

Electronic Controls System, Furnace Divn., Nirmal, 3rd flr., Opp. Dinbai Tower, Lal Darwaja, Ahmedabad 380001.

Hindustan Brown Boveri, Ltd., Furnace Dn., P. Box 124, Vadodara 390001.

Indequip Engg. Ltd., Naroda Rd., Ahmedabad 380002.

Inductoheat Pvt. Ltd., Nirmal, Opp. Dinbai Tower, Laldarwaja, Ahmedabad 380001.

Industrial Electricals, 11, GIDC Estate, Near Chokshi Tubes, Vatva 382445, Ahmedabad Dist.

Pioneer Electric Furnace Mfrs., Post Box No. 1, Vithal Udyognagar 388121. (Gujarat).

Haryana

Acme Process Heat Furnaces Pvt. Ltd., 14/5, Mathura Rd., Faridabad 121003. (Haryana).

Karnataka

Brindavan Alloys Ltd., Peenya Indl. Area, IV Phase, Tumkur Rd., Bangalore 560058.

Precon Group of Companies, 2990-J, 12th Main Rd., HAL Second Stage, Indira Nagar, Bangalore 560038.

Southern Ind. Furnaces Pvt. Ltd., 613-4, Chamaraja Rd., Mysore 570004.

Kerala

Elheat Furnaces Pvt. Ltd., Major Ind. Estate, Kalamassery 683004.

Kerala Electl. & Allied Engg. Co. Ltd., P. O. Mamala, Cochin 682305.

Powerkiln, Sanskrit College Rd., Tripunithura 682301.

Maharashtra

Acme Mfg. Co. Ltd., Kurla Kirol Rd., Ghatkopar, Bombay 400086.

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Branches :

5, Basement, Dalamal Towers, Nariman Point, Bombay-400 021. Phone : 223818.
99, Motilal Nehru Marg, Calcutta-700 029. Phone: 448961.
Jayalakshmi Chambers, 57, Residency Road, Bangalore-560 025. Phone: 40395.
169, Lingichetty St., Madras-600 001. Phone: 23181.

Allied Furnaces, Allied House, Rd. No. 1, Chembur, Bombay 400071.

Andheri Metal Refinery & Foundry, Chandi Karkhana, Mogra, Andheri (E), Bombay 400069.

Bofco Furnaces Pvt. Ltd., 1-3, Nandu Ind. Estate, Mahakali Caves Rd., Bombay 400093.

Bombay Furnace Co., 1-3, Nandu Ind. Estate, Mahakali Caves Rd., Chakala, Andheri (East), Bombay 400093.

Bombay Furnaces Pvt. Ltd., Stadium House, Nariman Rd., Bombay 400020.

Demak Engg. Co., 101/102, Laxmi Indl. Estate, Off Veera Desai Rd., Andheri (West), Bombay 400058.

Eltron (India) Pvt. Ltd., B-18, Giriraj Ind. Estate, Mahakali Caves Rd., Bombay 400093.

Exother Furnace Co., 23, Mohini Mansion, Colaba, Bombay 400005.

FMC Engg. Works Pvt. Ltd., Sonal Indl. Estate, Off Saki Vihar Rd., Behind John Baker & Sons, Bombay 400072.

Furnace & Foundry Equipment Co., Chandivli Farm, Bombay 400072.

Furnace Corpn., 45A, Kondivita Rd., Bombay 400059

Gainsons Pvt. Ltd., 207, Kakad Chambers, Dr. A. Besant Rd., Bombay 400018.

Heatreats Pvt. Ltd., 4-B, Menon Ind. Estate, S. Vivekanand Rd., Bombay 400062.

Heatrite Electricals, 59, Sindhi Socy., Chembur, Bombay 400071.

Hightemp Furnaces Pvt. Ltd., 7/226, Ram Nivas, Sion, Bombay 400022.

Hindustan Brown Boveri Ltd., Brown Boveri House, Dr. A. Besant Rd., Bombay 400018.

Ind. Engg. Works, 48, Tandel St., Bombay 400009.

Indian Furnace Co. Ltd., N. S. E. Estate, Goregaon (East), Bombay 400063.

Jam Engg. Pvt. Ltd., 35, Central Rd., Marol, Bombay 400093.

Kalra Furnaces Complex, 6, Chandu Studio Compd., Opp. Old Kalina St., Vidyanagari, Bombay 400098.

Kanti Thermo Equipment, 16, Jain Chambers, S. V. Rd., Bandra, Bombay 400050.

Khandelwal Udyog Ltd., Kurla-Kirol Rd., Ghatkopar (W), Bombay 400086.

Killick Nixon Ltd., Furnace Dn., Indl. Estate, Baji Pasalkar Mrg., Chandivali, Bombay 400072.

Krishak-Kal Enterprises, 214, Bajsons Indl. Estate, 40, Chakala Rd., Andheri East, Bombay 400093.

La Mina Pvt. Ltd., 15, Aghadi Ind. Estate, Marol, Bombay 400059.

La Vulcan Engrs., 66-B, Collectors Colony, Mahul Rd., Chembur, Bombay 400074.

New Standard Engg. Co. Ltd., N. S. E. Estate, Goregaon East, Bombay 400063.

Omega Enterprises, 506, Mohatta Mkt., Palton Rd., Bombay 400001.

R. K. Furnaces, Radha, Holy Cross Rd., I. C. Colony, Borivli West, Bombay 400092.

Sahyadri Udyog, Preet Chambers, 36, Poona-Bombay Rd., Pune 411003.

Sohal Engg. Works, E. Moses Rd., Bombay 400013.

Steel Plant Pvt. Ltd., 250-C, Dr. A. Besant Rd., Bombay 400018.

Therelek Furnaces Pvt. Ltd., A/131, Wagle Ind. Estate, Thane 400604.

Thermotreat, Estate No. 3, Anupam Ind. Estate, L. B. S. Mrg., Mulund (W), Bombay 400080.

Toshniwal Bros. Pvt. Ltd., 198, J. Tata Rd., Bombay 400020.

Universal Services, B-2, Mungekar Apartments, Aarey Rd., Goregaon East, Bombay 400063.

Vidyut Agni Furnaces Pvt. Ltd., 93-B, Ashiana, St. John Baptist Rd., Bandra West, Bombay 400050.

Vidyut Engg. & Technologies Pvt. Ltd., A-12, Nand Jyot Ind. Estate, Andheri-Kurla Rd., Bombay 400072.

Vulcan Engineers Pvt. Ltd., Unique Indl. Est., Prabhadevi, Bombay 400025.

Warriar & Warriar Engg. Co., 9/29, Shivaji Park, Dadar, Bombay 400028.

Westerwork Engineers Pvt. Ltd., Vulcan Insurance Bldg., V. Nariman Rd., Bombay 400020.

WIE Engg. Pvt. Ltd., Preet Chambers, 36, Bombay-Pune Rd., Pune 411003.

Zephyr Electronics, D-59, 4th Flr., Hemraj Wadi, Thakurdwar, Bombay 400002.

Tamil Nadu

Binny's Engg. Works Ltd., Meenambakam, Madras 600061.

Brightstar Engg. Co., L-8, Indl. Estate, Guindy, Madras 600032.

Electro-Mech. Instruments, 49, T. H. Rd., Madras 600019.

Essco Furnaces Pvt. Ltd., 127, Velachery Rd., Little Saidapet, Madras 600015.

National Agricultural & Diesel Inds., 2, Errabalu Chetty St., Madras 600001.

Precision Controls, 20, Sidco Indl. Estate, Ambattur, Madras 600098.

Precon Group of Companies, 8A, 1 Avenue, Adyar Club Gate Rd., Madras 600028.

Saundra Furnaces, 15, Lattice Bridge Rd., Adyar, Madras 600020.

Southern Furnace Co., 2/130, Mount Rd., Madras 600006.

Southern Furnaces Pvt. Ltd., 642, Mount Rd., Madras 600002.

Thermal Equipments, 2, Lattice Bridge Rd., Adyar, Madras 600020.

Uttar Pradesh

E. M. A. India Induction Heating Co. Pvt. Ltd., 4, Indl. Area, Govindnagar, Kanpur 208006.

West Bengal

Associated Electrical Ind. (India) Pvt. Ltd., 6, Mission Row, Calcutta 700001.

Bengal Enamel Works Ltd., 24, C. R. Ave., Calcutta 700012.

Bengal-Linn (Industrial Furnace) Ltd., 27-B, Camac St., Calcutta 700016.

Cieco Pvt. Ltd., 2/1, B. T. Rd., Calcutta 700050.

Electric Furnace & Mfg. Pvt. Ltd., J-14, Howrah Indl. Estate, Howrah 711101.

G.W.R. & Co., 89-A, Ballygunge Place, Calcutta 700019.

General Electric Co. of India Ltd., Furnace Dn., Magnet House, 6, Chittaranjan Ave., Calcutta 700013.

Hindustan Gas & Ind. Ltd., 22, New Tangra Rd., Calcutta 700046.

Indian Furnace Co. Ltd., 27-B, Camac St., Calcutta 700016.

Jessop & Co. Ltd., 63, N. Subhas Rd., Calcutta 700001.

Kusum Engg. Co. Ltd., 25, Swallow Lane, Calcutta 700001.

Middleton Engg. Co., 12E, Park St., Queen's Mansions, Calcutta 700016.

Speeds & Feeds, 7, Lake Rd., Calcutta 700029.

Surendra Engg. Works Pvt. Ltd., 1/A, Vansittart Row, Calcutta 700001.

Wellman Incandescent India Ltd., 8, Harrington St., Calcutta 700016.

Wesman Engineering Co. Pvt. Ltd., 1-2, Allenby Rd., Calcutta 700020.

GARMENTS—READY-MADE

Andhra Pradesh

S. G. Dresses, R. B. Bldg., Feelkhana, Hyderabad 500001.

Delhi

Apparels (I.) Pvt. Ltd., P. B. 1668, Delhi 10006.

Brightway Neckwear Co., Prahlad Market, Karolbagh, New Delhi 110005.

Elegant Garments, 53/5, D. Gupta Rd., Near Prahlad Market. New Delhi 110005.

S. C. Sharma & Co. Pvt. Ltd., 7-D, Connaught Place, New Delhi 110001.

Wings Wear Pvt. Ltd., 1/4, West Patel Nagar, New Delhi 110008.

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Gujarat

Lotus Ind., Udyog Nagar, Rd. No. 3, Udhna 394210.
Mafatlal Apparel Mfg. Co., Kamlagram Rd., Nadiad 387001, Kaira Dist.

Karnataka

Bangalore Clothing Factory, 53, Nagarthpet, Bangalore 560002.
Bangalore Dress Mfg. Co. Pvt. Ltd., 12, Lalbagh Rd., Bangalore 560027.
Binny Ltd., Garment Factory, Hebbal, Bangalore 560006.
Lalitha Dress Mfg. Co., S. Jubilee Park Rd., Bangalore 560002.
Prakash Dress Mfg. Co., Kempegowda Rd., 3rd Cross, Bangalore 560009.
Swastik Dress Mfg. Co., Seshadripuram, Bangalore 560020.
Wearwell (India) Corpn., 2-B, M. Gandhi Rd., Bangalore 560001.

Maharashtra

Amersey Exports Pvt. Ltd., Mathuradas Mills Compound, N. M. Joshi Marg, Bombay 400013.
Associated Apparel Pvt. Ltd., Rajmahal, 84, V. Nariman Rd., Bombay 400001.
Continental Apparel Mfg. Co., Mohatta Bhavan, Haines Rd., Worli, Bombay 400018.
Fit-Well Garments, 307, Brindaban Bhavan, Dadyseth Agiary Lane, Bombay 400002.
Fortune Apparels Pvt. Ltd., 107, Adhyaru Ind. Estate, Sun Mill Comp., Lower Parel, Bombay 400013.
Hakoba Pvt. Ltd., 95, V. Patel Rd., C. P. Tank, Bombay 400004.
Handloom (India) & Garments Ind. Pvt. Ltd., 59, V. B. Gandhi Mrg., Bombay 400023.
International Clothing Industries, Shirt House, 87, Ind. Estate, Kandivli (West), Bombay 400067.
Laffans (I.) Exports Pvt. Ltd., 21–23, V. Nariman Rd., Bombay 400001.
Mafatlal Apparel Mfg. Co., Mafatlal Centre, Nariman Point, Bombay 400021.
Milton's Pvt. Ltd., Mathuradas Mills Comp., N. M. Joshi Marg, Lower Parel, Bombay 400013.
Newlook Brassier Co., 204, J. Shanker Shet Rd., Bombay 400004.
Paville Fashions Pvt. Ltd., Paville House, Veer Savarkar Marg, Bombay 400025.
Popular Dress Mfg. Co., Ashok Nivas, Ranade Rd., Bombay 400028.
Rallis India Ltd., Ralli House, 21, Raveline St., Bombay 400001.
Victor Apparel Pvt. Ltd., 142-C, N. M. Joshi Marg, Parel, Bombay 400013.
Wearwell Garments, Hind Rajasthan Bldg., 4th Fl., Room No. 408, D. S. Phalke Road, Bombay 400014.
Western Garments Mfg. Co., 308/312, Hind Rajasthan Ind. Estate, Naigaum Cross Rd., Bombay 400031.
Wings Wear Pvt. Ltd., 7-A, Ramachandra Bldg., 280, Carnac Rd., Opp. G. T. Hospital, Bombay 400002.

Tamil Nadu

Chellaram Garments Pvt. Ltd., 181/182, Mount Rd., Madras 600002.
Coromandel Garments Ltd., Ind. Estate, Plot No. 21, Ambattur, Madras 600058.
Madras Clothing Co., No. 21, Bobegan Sahib St., Mount Rd., Madras 600002.
Zoro Garments Pvt. Ltd., 1/43, Broadway, Madras 600001.

Uttar Pradesh

Acme Wears Pvt. Ltd., C-94/1, Ind. Area, Bulandshahr Rd., Ghaziabad 201001.

West Bengal

Bagrees Pvt. Ltd., 201-B, M. Gandhi Rd., Calcutta 700007.
Kamlalaya Exports Pvt. Ltd., 14, Ballygunge Station Rd., Calcutta 700019.
Poddar Dress Manufg. Co., 154, J. Bajaj St., Calcutta 700007.

GAS CYLINDERS

Acetylene & Industrial Gas Cylinders Ltd., 4, Saradambal St., Gokulam Colony, Madras 600017.
Bharat Engg. Works (India), 10, Marine Chambers, 43, New Marine Lines, Bombay 400020.
Everest Kanto Cylinders Pvt. Ltd., 167, Atlanta, N. Point, Bombay 400021.
Hyderabad Allwyn Ltd., Allwyn Bhavan, Erragadda, Hyderabad 500018.
Larsvin Group, 315, Chandralok Complex, Sarojini Devi Rd., Secunderabad 500003.
Lata Engg. Co. Pvt. Ltd., Plot 41: Indl. Estate, Gandhinagar, Balanagar, Hyderabad 500037.

GAS FITTINGS & WELDING RODS

Durga Gas Appliances, 11, Second St., Nehru Nagar, Adyar, Madras 600020.
Escee Kitchenaid, Shreenivas House, 98, Dattaram Lad Marg, Kalachowki, Bombay 400033.
Maheshwari Indl. Corpn., Sarafa, Meerut City 250001.
Natural Gas Co. Pvt. Ltd., Mehta Chambers, 13, Mathew Rd., Bombay 400004.
Super Parts Pvt. Ltd., 14/1, Mathura Rd., Faridabad 121003. (Haryana).

GAS LAMPS, LIGHTERS, MANTLES, LANTERNS

Fargo Mantle Works Pvt. Ltd., Ramchandra Lane, Malad West, Bombay 400064.
Jhaveri Bros. & Co. Pvt. Ltd., 345, Abdul Rehman St., Bombay 400003.
Ojas Plastics, Mavdi Plot, Rajkot 360001.
Optimohur Ind. Pvt. Ltd., Manu Mansion, 16, S.B. Singh Rd., Bombay 400023.
Shaw B. K. Mantle Works Pvt. Ltd., 8-B, Dum Dum Rd., Calcutta 700030.
Silver Spark Pvt. Ltd., Post Box 5238, New Delhi 110021.
Utilitronix Pvt. Ltd., B-4, Electronics Complex, Kushaiguda, Hyderabad 500762.
(See 'Lantern & Stoves' in this list).

GAS PLANTS

Burn & Co. Ltd., Howrah Iron Works, Howrah 711101.
Indigenous Engg. Co. Pvt. Ltd., 89-B, Shakespeare Sarani, Calcutta 700017.
Industrial Cryogenic & Chemical Plants, 15, G. C. Ave., Calcutta 700013.
Industrial Oxygen Co. Pvt. Ltd., 68B, Jolly Maker Chambers II, N. Point, Bombay 400021
Mansfield Oil Gas Ltd., 16, R. Chowdhury Rd., Calcutta 700015.
Mechanical Machinery Makers Pvt. Ltd., 67, Ekdalia Rd., Calcutta 700019.
Octagon Inds., Govt. Indl. Estate, Corlim, Ilhas, Goa 403110.
Orissa Engg. Works, Lathikata 770037. Orissa State.
Otto India Pvt. Ltd., 9, Camac St., Calcutta 700013.
SF India Ltd., 46C, Chowringhee Rd., Calcutta 700016.

GAS STOVE

Bajsons, 1, Planet Indl. Estate, Subhas Rd., V. Parle East, Bombay 400057.
Ecoefficient Appliances, Eros Bldg., Grd. Flr., 42, M. Karve Rd., Bombay 400020.
Faridabad Gas Gadgets P. Ltd., 369, Sector 24, Faridabad 121005. (Haryana).
Fusebase India Pvt. Ltd., Badli Rly. Stn. Rd., Samaipur, Delhi 110042.
Geedee Home Appliances Corpn., 3/22, Pais St., Byculla West, Bombay 400011.
Goval Engrs. Pvt. Ltd., A-83/2, Wazirpur Indl. Area, Delhi 110052.
Jai Enterprises, 85, Mowbray's Rd., Madras 600018

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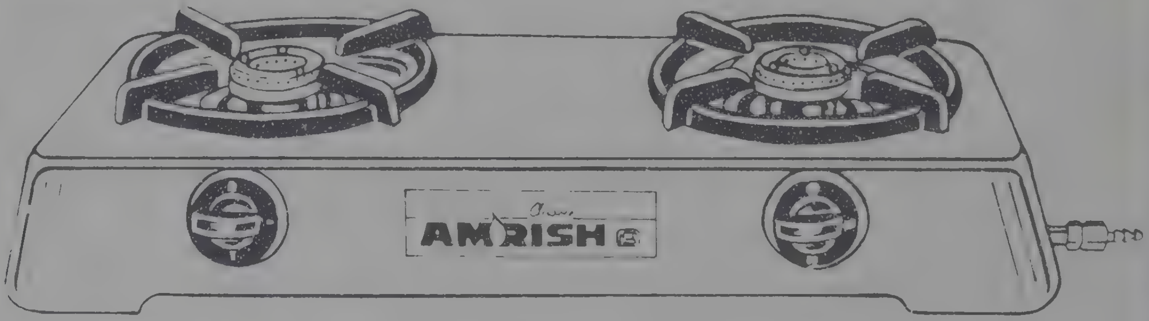

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Hindustan National Glass & Industries Ltd., 2, Wellesley Place, Calcutta 700001.
Hindusthan Safety Glass Works Ltd., 2, St. George's Gate Rd., Calcutta 700022.
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Krishna Silicate & Glass Works Ltd., R. S. Mullick Rd., Calcutta 700032.
New Indian Glass Works (Cal.) Ltd., 2, Church Rd., Calcutta 700028.
Scientific India Glass Co. Ltd., 11, Pollock St., Calcutta 700001.
Shiva Glass Works Co. Ltd., 27, Brabourne Rd., Calcutta 700001.
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Bombay Glass Works Pvt. Ltd., Manmala Tank Rd., Mahim, Bombay 400016.
Delhi Bottling Co. Pvt. Ltd., 60, Shivaji Marg, Najafgarh Ind. Area, New Delhi 110015.
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Haldyn Glass Works Pvt. Ltd., Off Western Express Highway, Goregaon East, Bombay 400063.
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Mahalakshmi Glass Works Pvt. Ltd., Sanatnagar, Hyderabad 500018.
Maharashtra Safety Glass Works Pvt. Ltd., 7-94, Bhosari, M.I.D.C., Pune 411026.
Mysore Crystal Glass Industries, Tannery Road, Bangalore 560045.
National Glass Bottle Co., 4, 'Ararat', 89, Medows St., Bombay 400023.
R. G. Glass Inds., 244, M. Azad Rd., Opp. Urdu Times, Bombay 400008.
Shree Gobinddeo Glass Works Ltd., 9, Ezra St., Calcutta 700001.
Standard Bottles Supply Co., 88, Ragipet, Bangalore 560002.
Tube Glass Containers, Maranbasri Indl. Estate, Govandi Stn. Rd., Bombay 400088.
United Glass Bottles Mfg. Co. Ltd., Avalahalli, Anjanapura, Bangalore 560061.
United Glass Works Pvt. Ltd., 111, Bhandari St., Bombay 400003.
Universal Glass Ltd., 54, Ring Rd., Lajpatnagar, New Delhi 110024.

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Divecha Glass Enterprises, 1, Rani Jhansi Rd., New Delhi 110055.
Glass Inds. Pvt. Ltd., 3/9, D. B. Gupta Rd., New Delhi 110055.
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Hind Glass Inds., Daga Chambers, 11, N. Dhuru Crosslane, Bombay 400003.
Hindustan Safety Glass Works Pvt. Ltd., 2, St. George's Gate Rd., Hastings, Calcutta 700022.
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Mulla Musaji Mulla Adamji Arsiwalla, 138, Abdul Rehman St., Bombay 400003.
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Pilco Mirror Industries, C-14, Ind. Estate, Guindy, Madras 600032.
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Falls Industries In-Corporation, 502, Jolly Bhavan No. 1, 10, New Marine Lines, Bombay 400020.
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Encee Electric Heat Corpn., 416, Commerce House, Medows St., Bombay 400023.
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Bombay Knitwear, 6, Shanti Bldg., Moghul Lane, Mahim, Bombay 400016.
Dawn Mills Co. Ltd., Fergusson Rd., Bombay 400013.
EKD Wearall Knitting Works, 12/12A, Indl. Estate, Fergusson Rd., Lower Parel, Bombay 400013.
Fine Hosiery Inds., 98-B, L. H. Rd., Mahim, Bombay 400016.
Great Eastern Hosiery Works Pvt. Ltd., 7, Chowpatty Rd., Bombay 400007.
Green Hosiery Factory, 39, Wadhani Indl. Estate, L.B.S. Mrg., Ghatkopar, Bombay 400089.
Krishna Hosiery Mills, 396, V. Savarkar Mrg., Prabhadevi, Bombay 400025.
Mayfair Hosiery Works, Shree Laxmi Woollen Mills Compound, Haines Rd., Bombay 400011.
Menora Hosiery Works Pvt. Ltd., 75, Nehru Rd., Bombay 400057.
National Hosiery Factory, Near Paradise Cinema, Mahim, Bombay 400016.
Omtex Hosiery Mills, 45, J. Wadia Rd., Bombay 400012.
Rolex Hosiery Pvt. Ltd., 142-C, Delisle Rd., Bombay 400013.
Romo Hosiery Works Pvt. Ltd., Bombay Mutual Terrace, 834, Sandhurst Bridge, Bombay 400007.

Punjab

Advance Hosiery Mills, Advance St., Ludhiana 141001.
Amber Inds. Pvt. Ltd., The Mall, Ludhiana 141001.
Angoora Hosiery Mills, P. B. No. 80, Ludhiana 141001.
Camel Knitting & Textile Mills, Subhas Market, Ludhiana 141001.
Hind Woollen & Hosiery Mills Pvt. Ltd., Ludhiana 141003.
Minerva Hosiery Mills Pvt. Ltd., Civil Lines, Ludhiana 141001.
Pearl Hosiery Mills, Gopal Rd., Karimpura, Ludhiana 141008.
S. D. Hosiery Mills, Purani Kotwali, Chaura Bazar, Ludhiana 141001.
Sutlej Hosiery Mills, 228, Ind. Area A, Ludhiana 141001.
York Hosiery Mills Pvt. Ltd., York House, Civil Lines, Ludhiana 141001.

Rajasthan

Jaipur Hosiery Mills Pvt. Ltd., 13, Adarsh Nagar, Ind Area, Jaipur 302001.
Syntex Fabrics Ltd., Kota 324003.

Tamil Nadu

Bhagvathi Knitting Co., Kongunagar Main Rd., Tirupur 638602.
Carnataka Knitting Co., Post Box 252, Tirupur 638602.
Haroon Knitting Co., P. B. No. 372, Tirupur 638604.
Leela Hosiery Mills, Royappapuram Extn., Tirupur 638601.
Lotus Industries Ltd., No. 16, Coral Merchant St., Madras 600001.
Mohan Knitting Co., Kamaraj Rd., Tirupur 638604.
Premson Hosiery Mills, Kongunagar Main Rd., Tirupur 638602.
Sri Lakshmi Hosiery Mfrs., No. 10/5, Duraiswamypuram 2nd St., Tirupur 638602.
Tirupur Knitting Co., No. 75, Kumaran Rd., Tirupur 638601.
Travancore Knitting Co., Palladam Rd., Tirupur 638601.
Waltax Hosieries, Tirupur 638604.

Uttar Pradesh

Benares Hosiery Ltd., Thatheri Bazar, Varanasi 221001.
Dayalbagh Textile Factory Pvt. Ltd., Dayalbagh, Agra 282006.
Prajah Textile Mills, Chhoti Bajaria, Ghaziabad 201001.

West Bengal

Amiya Hosiery Mills Pvt. Ltd., 4, Mahendra Goswami Lane, Calcutta 700006.
Ashoka Hosiery Mills, 5, S. Johuri Lane, Calcutta 700007.
Asia Hosiery Mills Pvt. Ltd., 73/8, Grey St., Calcutta 700006.
Banga Luxmi Hosiery Mills Pvt. Ltd., 1/4-C, Khagendra Chatterji Rd., Calcutta 700002.
East-End Hosiery Mills Pvt. Ltd., 100, Raja Dinendra St., Calcutta 700006.
Hind Hosiery Mills Pvt. Ltd., 161/A, M. Gandhi Rd., Calcutta 700007.
India Hosiery Mills Pvt. Ltd., 223, Manicktolla Main Rd., Calcutta 700011.

Parrot Hosiery Factory, 9/1, Sovaram Bysack St., Calcutta 700070.
Pioneer Knitting Mills Ltd., Pioneer Bldg., 6/1A, P. Soor Lane, Calcutta 700002.
Vinar Ltd., 2A, Shakespeare Sarani, Calcutta 700016.

HOSPITAL EQUIPMENT

(See under Medical Equipment).

HOUSEHOLD WARES

Asia American Automatic, 34, Indl. Area, Chandigarh 160002.
Balsara Hygiene Products Ltd., 12-A, Jorawar Bhuvan, M. Karve Rd., Bombay 400020.
Bellaire Houseware Mfrs., 605, Gorakhpurwala Bldg., J. Shanker Seth Rd., Bombay 400002.
Niky Tasha India Pvt. Ltd., 603, Tulsiani Chambers, N. Point, Bombay 400021.
Solray Appliances Pvt. Ltd., 29/2, Kharadi Village, Pune 411014.
Supreme Inds., 17/18, Shah Indl. Estate, Veera Desai Rd., Andheri West, Bombay 400058.
Swastik Household & Industrial Products Ltd., 15, Walchand Hirachand Mrg., Bombay 400038.

HYDRAULIC EQUIPMENT, PRESSES, HOSES, ETC.

Advance Automation Pvt. Ltd., B-55, Mayapuri Phase I, New Delhi 110064.
Aeroflex Hose Inds., 305, Sharada Chambers, 15, New Marine Lines, Bombay 400020.
Aerolex Sales Corpn., 99/2, 1st Flr., Narasimha Rd., Bangalore 560002.
Age Hydraulics & Pneumatics, B-6, Mayapuri Indl. Area, Phase 1, New Delhi 110064.
Agro Plastics, 44, Nagdevi Crosslane, Bombay 400003.
Alfomega Hydroworks Pvt. Ltd., 143, Lattice Bridge Rd., Madras 600043.
Allied Hydro-Pneumatic, 2/A, Banaji St., Off Cawasji Patel St., Bombay 400001.
Amar Engg. Co. (Regd.), Plot 221, Chandnagar, New Delhi 110018.
Anchor Hydraulics, Kambata House, Kambata Lane, Opp. Byculla Rly. Stn. (E), Bombay 400027.
Apcotex, 36, Palani Rd., Dindigul 624008. (Tamil Nadu).
Artic Industries, Madanzampa Rd., Vadodara 390001.
Arun Engg. Works, Belgaum 590008.
Bemco Hydraulics Ltd., P. O. Udyambag, Belgaum 590008.
Bengal Inds., 56C-1/9, Indl. Estate, NIT, Faridabad 121001. (Haryana).
Davy Ashmore India Ltd., 6A, Middleton St., Calcutta 700071.
Denison Hydraulics India Ltd., Patancherlu 502319. (A.P.).
Durga Conduit Pipe Works, 1333, D. B. Gupta Rd., Karol Bagh, New Delhi 110005.
Dynamatic Hydraulics Ltd., 11, Peenya Indl. Estate II, Tumkur Rd., Bangalore 560058.
Electro Pneumatics, 72, MIDC, Marol Indl. Area, Off Mahakali Caves Rd., Andheri East, Bombay 400093.
Equipment Hoses Ltd., Vaswani Mansion, D. Vachha Rd., Bombay 400020.
Escorts Transmissions Ltd., 45, Indl. Area, Faridabad 121001. (Haryana).
Flexible Hose Co., Post Box 2723, Delhi 110005.
Flexibles, 40-J, DLF Indl. Area, 14th Milestone, Mathura Rd., Faridabad 121003. (Haryana).
Fluid Power Pvt. Ltd., 40-E, K. K. Mrg., Bombay 400011.
Fluidline Systems, G-7, Laxmi Woollen Mills Estate, Dr. E. Moses Rd., Bombay 400011.
G. D. I. Engg. Pvt. Ltd., 136-A, B. R. B. Rd., Calcutta 700001.
Gautam Trading Co., 184, Nagdevi St., Bombay 400003.
Heatley & Gresham (India) Pvt. Ltd., 28, Barakhamba Rd., New Delhi 110001.
Heavy Hydraulic Engrs., B-2, Angol Indl. Estate, Udyambagh, Belgaum 590008.
Hemco Corpn., 308, Perin Nariman St., Bombay 400001.
Hind Equipment Corpn. Pvt. Ltd., 24B, Hamam St., Bombay 400001.
Hindustan Hydraulics, Suranussi, Jullundur 144027.
Hindustan Machine Tools Ltd., Bangalore 560052.
Hydraulic & Engg. Inds., 10066, D. B. Gupta Rd., Paharganj, New Delhi 110055.
Hydro Control Pvt. Ltd., 49/B, 2nd Phase, Peenya Ind. Estate, Bangalore 560022.
Hydrokrimp A. C. Pvt. Ltd., 1/1, Meredith St., Calcutta 700072.
Hydromatic Engg. Pvt. Ltd., P-3, Suhrawardy Ave., Calcutta 700017.
Hyguri Hydraulik (India) Pvt. Ltd., 701, Khanapur Rd., Belgaum 500008.
Inasap Flexibles & Engrs. Pvt. Ltd., 134, Angappa Naicken St., Madras 600001.
Indian Hydraulic Inds. Pvt. Ltd., 70, Najafgarh Rd., New Delhi 110015.
Indian Splicing (Mechanical) & Accessories Pvt. Ltd., Post Box 74, Ranchi 834001. (Bihar).
Indo Hydraulics, 310A, Commerce House, N. Master Rd., Bombay 400023.
Industrial Hydraulics, Lekhraj Bldg., Near Carnac Bridge, Bombay 400003.
Instrumentation & Controls, Post Box 2726, Kalbadevi, Bombay 400002.
International Sales (India), Unique Ind. Estate, V. Savarkar Marg., Prabhadevi, Bombay 400025.
J. Rosales Pvt. Ltd., 69, Nagdevi St., Bombay 400003.
Jain Hydraulics Pvt. Ltd., 10066, Multani Dhand, St. No. 1, Paharganj, New Delhi 110055.
Kazaf Engg. Co., 191, Nagdevi St., Bombay 400003.
Khimline Pumps Pvt. Ltd., 28, Mittal Chambers, Nariman Point, Bombay 400021.
Krampe Hydraulik (India), Kotkar Indl. Estate, Off Aarey Rd., Bombay 400063.
Lakshmi Narayan Engg. Works, 6, Baburam Ghosh Lane, Calcutta 700005.
Larsen & Toubro Ltd., L & T House, N. Morarji Mrg., Bombay 400038.
Liberty Hydraulic Presses, Bhayandar West 401101. (Thane Dist.).
Mangla Udyoga Pvt. Ltd., 62/2, Mathura Rd., Palwal 121102. (Haryana).
Marsan Machinex, 76, Erla Bridge, Andheri (W), Bombay 400058.
Modern Engrs. Co., Dapodi, Pune 411012.
Nandy & Co., 125, Bellilious Rd., Howrah 711106.
New Bemco Engg. Products Ltd., Udyambag, Belgaum 590008.
Nigam Bros (Sales) Pvt. Ltd., 150, Dharamtalla St., Calcutta 700013.
Oilcaval Corpn., 412, G.I.D.C. Estate, Vadodara 390010.
Omega Engg. Co., 149, Devipada, Off Gamdevi Rd., Bhandup, Bombay 400078.
ONYX Inds., 21-6 K. M. Mathura Rd., Faridabad 121003.
Oriental Engineering Works Pvt. Ltd., Ind. Area, Yamuna Nagar 135001. Ambala Dist., Haryana.
Oriental Trading Corpn., 135, B.R.B.B. Rd., Calcutta 700001.
Payen Talbros Ltd., 4, Indl. Estate, Gurgaon 122001.
Peeco Hydraulic Pvt. Ltd., Ambica Kundu Lane, Howrah 711104.
Perfect Tubes, 4/2, Kirti Nagar Indl. Area, New Delhi 110015.
Power Hydraulics, 3/11, 7th Flr., Navjeevan Socy., Lamington Rd., Bombay 400008.
Pressweld Engineers, 20, Lokamanya Tilak Rd., Near Carnac Bridge, Bombay 400003.
R. B. Engg. Pvt. Ltd., Army & Navy Bldg., M. Gandhi Rd., Bombay 400023.
Rexroth Maneklal Inds. Ltd., Vaswani Mansion, D. Vachha Rd., Bombay 400020.
Richardson & Cruddas (1972) Ltd., L. B. S. Mrg., Mulund West, Bombay 400080

Sadhana Engg. Co., 220G, Khadilkar Rd., Bombay 400004.
Schrader-Scovill Duncan Ltd., Mulund, Bombay 400080.
Shapotools, 107 & 108, Bajsons Indl. Estate, Chakala Rd., Andheri East, Bombay 400099.
SLM-Maneklal Inds. Ltd., Vaswani Mansions, D. Vachha Rd., Bombay 400020.
Sohal Engg. Works, Sohal Indl. Estate, L. B. S. Mrg., Bhandup, Bombay 400078.
Soni Enterprises, 4, Princep St., Calcutta 700072.
Srinarayanan Engg. Works, 389, Arcot Rd., Kodambakkam, Madras 600024.
Standard Hydraulik (India), C-9/10, Indl. Estate, Udyambag, Belgaum 590008.
Star Industrial Hose Divn., Star House, Naya Bans, Delhi 110006.
Sterling Hydraulic Co., 142, S. Vivekanand Rd., Bombay 400060.
Super Seals (India) Pvt. Ltd., Mathura Rd., Faridabad 121003
Taurian Tubes, 44, Ramdulal Sarkar St., Calcutta 700006.
Tractel Tirfor (India) Pvt. Ltd., 30, Altamount Rd., Bombay 400026.
Vankos & Co., 13/2, Indl. Estate, Patna 800013.
Veljan-Hydrair Pvt. Ltd., Balanagar, Hyderabad 500037.
Vestas Hose Division Pvt. Ltd., A-21, Rajouri Garden, New Delhi 110027.
Vickers Sperry of India Ltd., Akurli Rd., Kandivli East, Bombay 400067.
Victory Pumps & Engs. Mfg. Co., 69, Kandivli Indl. Estate, Kandivli West, Bombay 400067.
Yuken India Ltd., 41-43, Lavelle Rd., Bangalore 560001.

HYDROMETERS

Thimson Instruments (India), 212, Bharat Chambers, 52-C, Baroda St., Bombay 400009.

IMITATION JEWELLERY

Ashley Corpn., Causeway House, Colaba, Bombay 400005.
Aurobrite (I) Pvt. Ltd., Evergreen Indl. Estate, Off Haines Rd., Bombay 400011.
Chatons Pvt. Ltd., Jolly Maker Chambers No. 1, R. No. 23, Nariman Point, Bombay 400021.
Empire Machine Tools, Gondal Rd., Rajkot 360002.
Goldfield Mercantile Co., 24, Chakala Rd., Andheri East, Bombay 400069.
Indian Arts & Crafts Syndicate, 2666, Ballimaran, Delhi 110006.
Jewel Art Inds., Shriram Indl. Estate, Wadala, Bombay 400031.
Leather Goods House, 524-A, S. Bapat Marg, Bombay 400028.
Mehta Bros., 299, A. Rehman St., Bombay 400003.
New India Industries, 23/24, Singh Ind. Estate, Bldg. No. 2, Ram Mandir Rd., Goregaon West, Bombay 400062.
Oriental Mfg. Co., 114, 3rd Bhoiwada, Bhuleshwar, Bombay 400002.
Sharda Manufrs., 32, 3rd Bhoiwada, Bhuleshwar, Bombay 400002.
Skeleton Arts, 44, Agiary Lane, Bombay 400001.

INDUSTRIAL OVENS, INCUBATORS, ETC.

(See under Heaters (Industrial) & Heating Appliances & Elements).

INSTRUMENTS—SCIENTIFIC

Andhra Pradesh

Andhra Scientific Co. Ltd., R. Tagore Rd., Machilipatnam 521001.
Bio-Visual Products, 1-5-7/2, Musheerabad, Hyderabad 500020.
Electronics Corporation of India Ltd., Ind. Devpt. Area, Cherlapalli, Hyderabad 500762.
Elico Pvt. Ltd., B-17, Ind. Estate, Sanatnagar, Hyderabad 500018.
Instrument Techniques Laboratory, B-2, Co-op. Ind. Estate, Balanagar, Hyderabad 500037.
Lawrence & Mayo India Pvt. Ltd., 115, Park Lane, Secunderabad 500003.
Vijay Scientific Equipment, P. O. Buckinghampet, Vijayawada 520002.

Bihar

Bihar Scientific Corpn., P.B. 34, Patna 800004.

Delhi

Allied Scientific Engg. Corpn., 10/15, Dakhshni Marg, Rajendra Nagar, New Delhi 110005.
Associated Instrument Manufrs. (I) Pvt. Ltd., 26/27, A. Ali Rd., New Delhi 110002.
Altantis (India) Applications Engg. Pvt. Ltd., 4E/3, Jhandewalan Extn., New Delhi 110055.
Capital Scientific Instruments Co. Pvt. Ltd., 6, N. Subhas Marg, Daryaganj, New Delhi 110002.
Dutta Scientific Works, 3, Shri Ram Bldg., Jawahar Nagar, Delhi 110007.
Hindustan Scientific Instruments Co., J-114-A, Kirti Nagar Ind. Area, New Delhi 110015.
Hydraulic & Engg. Instruments, 59/4-B, Phase II, Naraina Indl. Area, New Delhi 110028.
Lawrence & Mayo India Pvt. Ltd., 76, Janpath, New Delhi 110001.
Macro Scientific Works, 10 A/U.A., Jawahar Nagar, Delhi 110007.
Narang Scientific Works Pvt. Ltd., C255, Mayapuri Indl. Area, Phase II, New Delhi 110064.
National Scientific Instruments Co., 37/38, U. B. Block, Jawahar Nagar, Delhi 110007.
Nihal Engg. Corpn., B-53, Naraina Indl. Area, Phase II, New Delhi 110028.
Salooja Bros. Pvt. Ltd., 8/34, Kirti Nagar Ind. Area, New Delhi 110015.
Scientific Equipment Works, 1/777, Nicholson Rd., Delhi 110006.
Scientific Instruments Co. Ltd., B/7, Ajmeri Gate Ext., New Delhi 110001.
Scientific Refrigeration Enterprise, K-106, Kirti Nagar, New Delhi 110015.
Stead Electronics Ind., 17 U. A., Jawahar Nagar, Delhi 110007.
Toshniwal Bros. Pvt. Ltd., 3/E/8, Jhandewalan Extn., Link Rd., New Delhi 110055.
Widson Scientific Works, 10, West Sadar Thana Rd., Delhi 110006.
York Scientific Inds., 1325, Hira Lal Bldg., Fasil Rd., Ajmeri Extn., Delhi 110006.

Gujarat

Atlas Radio & Electronic Ind. Pvt. Ltd., 57, G.I.D.C. Ind. Estate, Naroda, Ahmedabad 382330.
Systronics, Div. of Sarabhai Sons Pvt. Ltd., 899/92, Ind. Area, Naroda, Ahmedabad 382330.

Haryana

Instruments & Chemicals Ltd., Model Town, Ambala City 133003.
Jain Scientific Glass Works, Ambala Cantt. 133001.
Laboratory Equipment Traders, Timber Market, Ambala Cantt. 133001.
Oriental Science Apparatus Workshop, Alexandra Rd., Ambala Cantt. 133001.
Taylor Instrument Co. (India) Ltd., 14, Delhi-Mathura Rd., P.O. Amarnagar, Faridabad 121003.
Western Electric & Scientific Works, Nicholson Rd., Ambala Cantt. 133001.

Karnataka

British Physical Labs (I) Pvt. Ltd., Bangalore 560027.
Hind High Vacuum Co., A-92, Indl. Estate, Rajaji Nagar, Bangalore 560044.
Lawrence & Mayo India Pvt. Ltd., 4-B, M. G. Rd., Bangalore 560001.

Kerala

Instrumentation Ltd., Kanjikode (W), Palghat 678623.

Madhya Pradesh

Scientific Instruments (Indore) Pvt. Ltd., B-14, Ind. Estate, Indore 452003.

Maharashtra

Advance Scientific Co., Diamond Jubilee Comp., 285, Thakurdwar Rd., Bombay 400002.

Allied Instruments Pvt. Ltd., 30-B, Govt. Indl. Estate, Kandivli, Bombay 400067.

Ama Pvt. Ltd., Canada Bldg., Dr. D. Naoroji Rd., Bombay 400001.

Asha Scientific Co., 503, J. Shanker Seth Rd., Bombay 400002.

Associated Dental Medical Supply Co., Yusuf Bldg., V. Nariman Rd., Bombay 400001.

Associated Instrument Mfrs. (I) Pvt. Ltd., India House, Fort St., P.B. 119, Bombay 400001.

Automatic Electric Pvt. Ltd., Rectifier House, Naigaum Cross Rd., P.B. 7103, Wadala, Bombay 400031.

Batliboi & Co. Pvt. Ltd., Apeejay House, Forbes St., Bombay 400023.

Blue Star Ltd., Band Box House, Prabhadevi, Bombay 400025.

Bombay Scientific Equipment Corpn., 41, Sion (West), Bombay 400022.

Bombay Surgical Co., Opp. H. N. Hospital, Bombay 400004.

C. Z. Instruments India Pvt. Ltd., Court Chambers, 35, Sir V. Thackersey Mrg., Bombay 400020.

Central Scientific Syndicate, 475, J. Shanker Seth Rd., Bombay 400002.

Chemech Instruments, Bhaveswar Vijay, Wadala (N), Bombay 400031.

Consolidated Electronics, 2, Sripat Bhuvan, Wadia St., Bombay 400034.

D. Shah & Co., 198, Lokamanya Tilak Rd., Bombay 400002.

Digital Electronics Ltd., 74/II, Marol Indl. Area, MIDC, Andheri (E), Bombay 400093.

Divyesh Scientific Co., Sita Kunj, 4th Rd., Dadar, Bombay 400014.

E. Ruttonsha Pvt. Ltd., International House, Shastri Mrg., Bombay 400077.

Educational Scientific Stores, 110/113, Himalaya House, Palton Rd., Bombay 400001.

Elico Pvt. Ltd., 95, D. Phalke Rd., Dadar, Bombay 400014.

Gansons Pvt. Ltd., 207, Kakad Chambers, Dr. A. B. Rd., Bombay 400018.

Garg Scientific Glass Ind., 26/28, Dr. M. B. Velkar St., 1st Kolbhat Cross Lane, Bombay 400002.

Gordhandas Desai Pvt. Ltd., Kermani Bldg., Sir P. M. Rd., Bombay 400001.

Greaves Cotton & Co. Ltd., Forbes St., Bombay 400023.

Gyro Laboratories Pvt. Ltd., 8, Gazdar St., Thakurdwar, Bombay 400002.

Hakotronics Pvt. Ltd., Sussex Rd., Bombay 400027.

Hardcastle Waud & Co. Pvt. Ltd., 87, V. Nariman Rd., Bombay 400020.

Heatex Products Pvt. Ltd., 11, Bank St., Bombay 400023.

Hinditron Services Pvt. Ltd., 69/A, Nepean Sea Rd., Bombay 400006.

Indian Electronics, Asha Studio, Chembur, Bombay 400071.

Indo-Burma Petroleum Co. Ltd. (Electronics Manfg. Div.). Allahabad Bank Bldg., Apollo St., Bombay 400023.

Indo-German Surgical Corpn., Purshottam Bldg., Opera House, Bombay 400004.

Industrial Controls & Appliances Pvt. Ltd., 47, Chakala Rd., Bombay 400069.

Industrial & Research Instruments Co., D/2, Commerce Centre, 74, Tardeo Rd., Bombay 400034.

Industrial Instruments & Controls, 308, Neelam, 108, Worli Sea Face Rd., Worli, Bombay 400018.

Industrial Meters Pvt. Ltd., Advent, 12 A, Foreshore Rd., Bombay 400021.

Instrumentation Service, 19-C. Shalimar Ind. Estate, Matunga, Bombay 400019.

Jayant Medical & Surgical Co., 52/58, New Hanuman Lane, Bombay 400002.

Jayant Scientific Industries, 19-B, Jambool Wadi, Kalbadevi Rd., Bombay 400002.

Khandelwal Chemo-Lab,Equipments, Bhangwadi, Kalbadevi Rd., Bombay 400002.

Krishna Instruments & Appliances Co., 230, Arun Chambers, Tardeo Rd., Bombay 400034.

Larsen & Toubro Ltd., L & T House, Dougall Rd., Ballard Estate, Bombay 400038.

Lawrence & Mayo India Pvt. Ltd., 274, Dr. D. N. Rd., Bombay 400001.

Lektrolab Equipment Co., 8, Shivaji Park, Bombay 400028.

Mahlo-Star Electronic Equipment Pvt. Ltd., Shri Lakshmi Woollen Mills Estate, Dr. E. Moses Rd., Bombay 400011.

Marshall Sons & Co. India Ltd., Marshalls Bldg., Shoorji Vallabhdas Mrg., B. Estate, Bombay 400038.

Martin & Harris Pvt. Ltd., Scientific Dn., Apeejay Chambers, Wallace St., Bombay 400001.

Meco Instruments Pvt. Ltd., 310-311, Bharat Indl. Estate, T. J. Rd., Sewree, Bombay 400015.

Medica Instruments Mfg. Co., S. Bapat Mrg., Opp. Phoenix Mills, Bombay 400013.

Modern Scientific Instruments Co., 48 A/B, Sadashiv Cross Lane, Bombay 400004.

National Radio & Electronics Co. Ltd., 8, Unity House, Mama Parmanand Marg, Bombay 400004.

National Scientific Instruments Co., 19, Bank St., Bombay 400023.

Orient Scientific & Chemical Co., 20, Kitchen Garden Lane, Bombay 400002.

Peico Electronics & Electricals Ltd., Shivsagar Estate, Block A Dr. A. Besant Rd., Worli, Bombay 400018.

Pioneer Equipment Co. Pvt. Ltd., 139, N. Master Rd., Bombay 400023.

Pla Electro Appliances, Thaker Estate, Vidyavihar (W), Bombay 400086.

Polydor of India Ltd., A. Chakravarti Rd., Ashok Nagar, Kandivli East, Bombay 400067.

Remi Udyog, 49C/D, Govt. Indl. Estate, Kandivli (W), Bombay 400067.

Saples Scales Manufg. Co. Pvt. Ltd., Prospect House, Off Gunbow St., Bombay 400001.

Scientific Apparatus Mfg. Co., 225-C, Mangaldas Bldg., Mangaldas Rd., Bombay 400002.

Scientific Equipment Mfg. Co., 17-A, Jakaria Ind. Estate, Bombay 400011.

Scientific Instrument Co. Ltd., 240, Dr. D. Naoroji Rd., Bombay 400001.

Scientific Instrument Mfg. Co., 5, Parvati Indl. Estate, Sun Mill Compd., L. Parel, Bombay 400013.

Scientific Requisites Supplies, 37, Western India House, Sir P. Mehta Rd., Bombay 400001.

Shanti Electric Instruments, Green House, Green St., Bombay 400023.

South India Surgical Co., 57, K. M. Sharma Rd., Bombay 400002.

Specialised Instruments Mfg. Co., Neelam Bldg., Worli Seaface, Bombay 400018.

Star Electronics Pvt. Ltd., Dhanraj Mahal, Apollo Bunder Rd., Bombay 400039.

Techno-Electro Pvt. Ltd., 83, Jolly Maker Chambers II, 8th Floor, Nariman Pt., Bombay 400021.

Tempo Ind. Corpn., 1, Lamington Chambers, 394, Lamington Rd., Bombay 400004.

Toshniwal Bros. Pvt. Ltd., 198, J. Tata Rd., Bombay 400020.

Twandsven Electronic & Engg. Service, Sind Chambers, Colaba Causeway, Bombay 400005.

Udeyraj & Sons, Readymoney Terrace, Dr. A. B. Rd., Bombay 400018.

Universal Scientific Glass Apparatus Mfg. Inds., 603, J. Shanker Seth Rd., Bombay 400002.

Vibronics Pvt. Ltd., 4, Kurla Ind. Estate, Agra Rd., Ghatkopar, Bombay 400086.

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- **SICO** Dissolved Oxygen & Temperature Meter.
- **SICO** Auto Cane Feed Controller.
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Orissa

General Engg. & Scientific Works, Indl. Estate, Berhampur 760008.

Punjab

Hans Raj Nayyar (Surgical) Co. Pvt. Ltd., Hall Bazar, P.B. 38, Amritsar 143001.

Rajasthan

Hindustan Scientific Co., Film Colony, Jaipur 302003.
Photo Electric Instruments, Diwan House, Mehta Market, Jodhpur 342001.

Tamil Nadu

Dev's Electronics Pvt. Ltd., 11-1, Instronics Estate, Madras 600041.
Gansons Pvt. Ltd., 131, Mount Rd., Madras 600006.
Indchem Electronics, 105, Dr. Radhakrishna Salai, Madras 600004.
Lawrence & Mayo India Pvt. Ltd., 68, Anna Salai, Madras 600002.
Nandini Precision Works, Shree Seva Mandir, Saligramam, Madras 600093.
Scientific Instruments Co. Ltd., 30, Mount Rd., Madras 600002.
Scientific Products, C-42, Ind. Estate, Guindy, Madras 600032.
Seshasayee Bros. Pvt. Ltd., 9-A, Nungambakkam High Rd., Madras 600034.
Toshniwal Bros. Pvt. Ltd., Round Tana, Mount Rd., Madras 600002.

Uttar Pradesh

Agarwal Scientific Glass Industries, 46, Ind. Estate, Nanhai, Agra 282006.
Central Scientific Instrument Corpn., 5-A, M. Gandhi Rd., Agra 282001.
Modern Balance Works, D-54/19, Aurangabad, Varanasi 221001.
Newton Scientific Products Co., P.B. 193, Lucknow 282001.
Scientific Corporation, 10, Bhopal House, Lalbagh, Lucknow 282001.
Scientific Instruments Co. Ltd., 6, T.B. Sapru Rd., Allahabad 211001.

West Bengal

Geologists Syndicate Pvt. Ltd., 137, B. R. Basu Rd., Calcutta 700001.
H. Guru Instruments Pvt. Ltd., 2A, Shakespeare Sarani, Calcutta 700016.
J. R. Mullick & Co. Pvt. Ltd., 6/J, Keyatala Rd., Calcutta 700029
Lawrence & Mayo India Pvt. Ltd., 11, Govt. Place East, Calcutta 700069.
National Instruments Ltd., 1/1, R.S.C. Mullick Rd., Calcutta 700032.
Scientific Instruments Co. Ltd., 11, Esplanade East, Calcutta 700001.
Toshniwal Bros. Pvt. Ltd., 85-A, S. Bose Rd., Calcutta 700026.
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Anudyog, 2, G. C. Ave., Calcutta 700013.
Arco Inds., 100/104, N. Master Rd., Bombay 400023.
Artec Products, 55, Sidhpura Indl. Estate, Bombay 400062.
Ashwin Kumar & Co., Shreeji Bhavan, 49, Mangaldas Rd., Bombay 400002.
B. B. Chatterjee & Co. Pvt. Ltd., 22, Rajawoodmunt St., Calcutta 700001.
Bhor Industries Ltd., 392, V. Savarkar Mrg., Bombay 400025.
British Electric Insulating Co. Pvt. Ltd., 33, Dr. V. B. Gandhi Mrg., Bombay. 400023.
Commonwealth Insulations, Chemicals & Fertilisers Ltd., 38, Nariman Rd., Bombay 400001.
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Eastern Insulations, Sambava Chambers, Sir P. M. Rd., Bombay 400001.
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Evergreen Inds., Tirupparamkundram, Madurai 625005.
Fibreglass Pilkington Ltd., 9, Wallace St., Bombay 400001.
Fibretex Inds. (India), 89, Sector 6, Faridabad 121002.
Fibro Products, 33A, Apurva Industrial Estate, Makwana Rd., Andheri (East), Bombay 400059.
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Industrial Insulation Corpn., 104, Arun Chambers, Tardeo, Bombay 400034.
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Insuglass Inds. Pvt. Ltd., 17/12, The Mall Rd., Calcutta 700028.
Insulating Varnishes, Samadhan, A-4, Tulsi Pipe Rd., Bombay 400028.
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Jaya Shree Insulators, Post Box 207, Calcutta 700001.
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Lakshmi Porcelains Ltd., 6-3-680/B, Punjagutta, Hyderabad 500004.
Lloyd Insulations India Pvt. Ltd., 6, Middleton St., Calcutta 700016.
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M. S. Insulator Corp. of Maharashtra, 31, Old Post Office Lane, Kalbadevi Rd., Bombay 400002.
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Mahavir Insulation Pvt. Ltd., 731, Tulsiani Chambers, N. Point, Bombay 400021.
Mascot Insulations, 99/5/8A, Ballygunge Place, Calcutta 700019.
Mercury Marine Insulations, 206, Arun Chambers, Tardeo, Bombay 400034.
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Mineral Wool Manufg. Co., Jugsalai, Jamshedpur 831001.
Modern Insulators Ltd., D-22, Moti Dungri Rd., Jaipur 302004.
Montex Fibre Glass Ind. Pvt. Ltd., 2/18, Bombay Mutual Annexe, Rustom Shidhwa Marg, Bombay 400001.
Newkem Insulations (Calcutta), 4, Chandni Chowk St., Calcutta 700013.
Permali Wallace Ltd., Bhopal 462008.
Phoenix Paper Products Pvt. Ltd., 6, Nagdevi X Lane, Bombay 400003.
Plasticables Pvt. Ltd., Lentin Chambers, 36, Dalal St., Bombay 400023.
Sampat Ceramics Pvt. Ltd., 16, Pollock St., Calcutta 700001.
Shanti Electric Instruments, Green House, Green St., Bombay 400023.

Shramik Winding Wires Pvt. Ltd., D-46, Sardar Udyognagar, Ajwa Rd., Vadodara 390001.
Special Insulations, 3/3, South Tukoganj, Indore 452001.
Sterling Insulation Co. Pvt. Ltd., Miraj 416410.
Swastik Insulators, 1-1-782, Gandhinagar, Hyderabad 500380.
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Tubros (Sales) Corpn., A-124, Inderpuri, New Delhi 110012.
Union Asbestos & Allied Products, 40, Strand Rd., Calcutta 70001.
Vidyut Udyog, 5, Fancy Lane, Calcutta 700001.
Vijayant Insulations Pvt. Ltd., City Mill Compd., Kankaria Rd., Ahmedabad 380022.
Vitro Ceramics, 157, Vithal Udyog Nagar, Vallabh Vidyanagar 388120 (Gujarat).
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INTERCOM SYSTEMS

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Consolidated Components, Ashok Silk Mills Compd., 202, LBS Marg, Ghatkopar, Bombay 400086.
Demit Systems (India), Shivalaya Bldg., 4th flr., Commander-in-Chief Rd., Madras 600008.
Dynamic Services (India) Pvt. Ltd., Rohit House, 3, Tolstoy Mrg., Delhi 110001.
Dynamic Systems Pvt. Ltd., 11A, Cuffe Parade, Bombay 400005.
Forward Electronics, Laxmi Bhavan, 6, Bora Bazar, Bombay 400001.
Impala Sales Pvt. Ltd., Jay Bldg., Cinema Rd., Ghatkopar, Bombay 400086.
Industrial Marketing Services, Rita Bldg., 51A, Sonapur St., Bombay 400002.
Instant Communications, 804, Madhuban, 55, Nehru Place, New Delhi 110024.
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Pan Services Pvt. Ltd., 9/C, Lord Sinha Rd., Calcutta 700071.
Recordex Pvt. Ltd., 70, Najafgarh Rd., New Delhi 110015.
Sai Enterprises, 127, Mittal Tower, B Wing, 12th Flr., N. Point, Bombay 400021.
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Superphone (India) Pvt. Ltd., 6A, DLF Comml. Complex, Greater Kailash II, New Delhi 110048.
Superhone (India) Pvt. Ltd., Post Box 7665, Bombay 400067.
Supreme Intercom Services, B-5, 55-E, M. Vasanji Rd., Andheri East, Bombay 400069.
System Manufacturing Pvt Ltd., 1-A, Peenya Ind. Area, Off Tumkur Rd., Bangalore 560022.
Systems Communications, 101, Bajaj Bhavan, 10th Floor, Nariman Point, Bombay 400021.
Telecommunications Engrs., 622, Tardeo Air-Conditioned Mkt., Bombay 400034.
Tiger Phones, 13, Daryaganj, New Delhi 110002.
UPTRON, 10, Ashok Mrg., Lucknow 226001.
VIP Electronic Services, 63, G. D. Ambekar Mrg., Parel, Bombay 400012.
Yuenvee Associates, Hornby Bldg., 172/74, Dr. D. N. Rd., Bombay 400001.

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J. J. Ind., 45, Shiv Takur Le., Calcutta 700007.
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Aryan Traders, Dongre Bldg., Opp. Ruia Coll., Matunga, Bombay 400019.
Ashok Metal Works, G/83, Sarvodayanagar, 1st Panjrapole Lane, Bombay 400004.
Balsara Hygiene Products Ltd., 12-A, Jorawar Bhuvan, M. Karve Rd., Bombay 400020.
C. Lal Electrical & Mechanical Co., Indl. Estate, Ambala City 134002 (Haryana).
Domestic Appliances, Post Box No. 3330, New Delhi 110014.
Elma Industries, C/46, Aaram Society, Vakola, Santacruz East, Bombay 400055.
Escee Kitchenaid, Shreenivas House, 98, Dattaram Lad Mrg., Kalachowki, Bombay 400033.
Gajanan Canteen Equipment Co., A-25, Laghu Udyog Kendra, I. B. Patel Rd., Goregaon East, Bombay 400063.
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Guru Nanak Anodising Works, Patel Chowk, Jullundur 144001.
India Metal Inds., 139/141, C. P. Tank Rd., Bombay 400004.
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Industrial Kitchen Equipment & Allied Agencies, Babulnath Trust Bldg. No. 2, Block 30, Chowpatty, Bombay 400007.
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Mahavir Bros., Triveni House, Opp. 13th Lane, Bombay 400004.
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Naik Bros., 358, Mint St., Madras 600001.
Nat Steel Equipment Pvt. Ltd., 9, Ambekar Marg, Dadar, Bombay 400014.
Paramount Inds., Moti Ram Rd., Shahdara, Delhi 110032.
Peeco Enterprises, 8, Wazirpur Indl. Complex, Delhi 110052.
Premier Trading Corpn., Bahadurgarh Rd., Delhi 110006.
Presco Kitchenware Appliances, 28/29, Rajender Nagar, Mohannagar 201007. Ghaziabad (Dist. (U.P.).
Queen's Sales Corpn., Shop No. 2A & 3, Lohia Palace, Opp. Hotel Caesers Palace, 373, Linking Rd., Khar, Bombay 400052.
Shree Shakti Mfg. & Mktg. Co., 11/145, Sastry Rd., Ramnagar, Coimbatore 641009.
Silver Light Nirlepware Inds. Pvt. Ltd., 1178, Narayan Cottage, G. D. Ambekar Mrg., Parel, Bombay 400012.
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Thakar Equipment Co., 66, Okhla Ind. Estate, New Delhi 110020.
Trupti Ind., Roxy Chambers, New Queen's Rd., Bombay 400004.
Veekay Enterprises, 107, Owners' Indl. Estate, Pitamber Lane, Mahim, Bombay 400016.

LABELS (METAL)

Bharat Industrial Arts, B-11, H.M.T. Ind. Estate, Bangalore 560031.
Bieri Pvt. Ltd., Bieri Estate, Sion, Bombay 400022.
Calcutta Label Works, 35, J. Bajaj St., Calcutta 700007.
Delux Meta Print Inds., 10-2-347/A, Asifnagar, Hyderabad 500028.
Excel Process Pvt. Ltd., 22-D, S. A. Brelvi Rd., Bombay 400023.
Falgoon Process, 36, Nandanvan, Opp. Ralliwolf, Agra Rd., Mulund, Bombay 400080.
Ilka Metal Labels Mfg. Co., 1, British Indian St., Calcutta 700001.
Kshirod Mohan Mullick & Sons, 48, M. G. Rd., Calcutta 700009.
Mark-O-Prints (India), 51, Ideal Ind. Estate, Mathuradas Mill Compd., Bombay 400013.
Metacarv, 40, Mun. Ind. Estate, K. Khadye Mrg., Bombay 400011.
Metagraphs Pvt. Ltd., 164, Senapati Bapat Mrg., Bombay 400016.
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Mragna Metal Label Mfg. Co., 8-A, Parvati Ind. Estate, Sun Mill Le., Bombay 400013.
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Print-O-Graph, 30-AB, Piramal Ind. Estate, S.V. Road, Goregaon (W), Bombay 400062.
Pune Petagraph, M.I.D.C., Plot No. T113, Bhosari B Block, Pimpri Ind. Area, Village Bhosari 411026, Pune Dist.
Rick Mack Associates India, 2824, Peepal Mahadev, Hauz Qazi, Delhi 110006.
Sridevi Inds., 219, G. Naick St., Madras 600001.
Surendra Process Works, 1, Shantinagar Indl. Estate, Santacruz East, Vakola, Bombay 400055.

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International Chemico Inds., 21, Weston St., R. No. 216, 2nd Flr., Calcutta 700012.
Laboratory Chemical Co., 55-114, B.R.B.B. Rd., Calcutta 700001.
National Chemical Corpn., B. No. 9, Devkaran Mansion, Princess St., Bombay 400002.
Polypharm Pvt. Ltd., Calcot House, 8, Tamarind St., Bombay 400023.
Prakash Chemical Industries, 31, Duncan Causeway, Bombay 400022.
Roman Inds., A-1, Inds. Compd., J. B. Nagar, M. Vasanji Rd., Andheri East, Bombay 400059.
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Delhi

Apothecaries' Sundries Mfg. Co., 19, Amrit Kaur Market, New Delhi 110055.
Ashoka Scientific Ind., 4, New Lajpat Rd. Market, Delhi 110006.
Asian Scientific Instruments Co., 12, S. Basti Harphool Singh, Sadar Thana, Delhi 110006.
Chhabra Scientific Ind., 1928, Malka Ganj Rd., Delhi 110007.
Delhi Scientific Works, Ajmeri Gate, Delhi 110006.
Emkay Scientific Corpn., 36, U. B. Jawahar Nagar, Delhi 110007.
K. L. K. Scientific Ind., 313, Dhir Pur, Nirankari Colony, Delhi 110009.
Lawrence & Mayo India Pvt. Ltd., 76, Janpath, New Delhi 110001.
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National Instruments Ltd., 603, Ansal Bhawan, K. Gandhi Marg, New Delhi 110001.
Precision Scientific Equipment Corpn., 16, Patel Rd., S. Patel Nagar, New Delhi 110008.
Rashtriya Optical Traders, 4, Darya Ganj, New Delhi 110002.

Gujarat

Quality Engg. Works, Behind Vadi Vegetable Market, Pratapnagar Rd., Vadodara 390004.
Surgical Equipment Mfg. Co., 1B, Kalpana Bhoomi Estate, Dhudeshwar Rd., Ahmedabad 380001.
Systronics, 89-92, Ind. Area, Naroda, Ahmedabad 382330.
Vitro Ceramics, 157, Vithal Udyog Nagar, Vallabh Vidyanagar 388120.

Karnataka

British Physical Labs. India Ltd., M. G. Rd., Bangalore 560001.
Govt. Electric Factory, Mysore Rd., Bangalore 560001.
Lawrence & Mayo India Pvt. Ltd., 4-B, M. G. Rd., Bangalore 560001.

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Amar Engg. Co., 6, Parmar Indl. Estate, Bail Bazar, Kurla-Andheri Rd., Kurla, Bombay 400070.

Associated Instruments Mfrs. (India) Pvt. Ltd., India House, W. Hirachand Marg. Bombay 400001.

Bioscience Corpn., 67, Hanuman, P. Box 6884, Vile Parle (East), Bombay 400057.

Blue Steel Engrs. Pvt. Ltd., A to Z Indl. Estate, Fergusson Rd., Bombay 400013.

Cintex Ind. Corpn., 237, Jaigopal Ind. Estate, Bhavanishanker Cross Rd., Dadar, Bombay 400028.

Control Dynamics, 3, Shyma, Uttam Socy., Bombay 400071.

Delhi Scientific Works, 12, J. B. Nagar, Andheri, Bombay 400059.

Eltron India, 13, St. No. 9, MIDC, Bombay 400093.

Indian Equipment Corpn., D-20, Udyog Sadan No. 2, MIDC, Andheri East, Bombay 400093.

Kailash Scientific Corpn., D-4, Laghu Udyog Kendra, I. B. Patel Rd., Goregaon East, Bombay 400063.

Kumar & Co., 31, Old Post Office Lane, Kalbadevi Rd., Bombay 400002.

Lawrence & Mayo (India) Pvt. Ltd., 274, Dr. D. Naoroji Rd., Bombay 400001.

M. Shah & Co., Kanji Mansion, 311, S. Patel Rd., Bombay 400004.

Meco Instruments Pvt. Ltd., Bharat Indl. Estate, T. J. Rd., Bombay 400015.

Micromac Instruments, 39/5, Khamosh Shah Durga, Near Ghas Bazar, Kalyan (Thane Dist).

Modern Scientific Ind., 58-C, Govt. Ind. Estate, Kandivli West, Bombay 400067.

National Instruments Ltd., K. Parikh House, 47, P. D'Mello Rd., Bombay 400009.

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Polar Ind. Corpn., Devkaran Mansions, 43, Princess St., Bombay 400002.

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Raj-Der-Kar & Co., Bhau S. Desai Wadi, Masjid Lane, Bombay 400028.

Ravindra Heraeus Pvt. Ltd., Poonam Chambers, Block 601/A, B, Shivsagar Estate, Worli, Bombay 400018.

Remi Udyog, 325, Kalbadevi Rd., Bombay 400002.

Rolla Ind. Corpn., Sainath Ind. Estate, Shed "E", Off Aarey Rd., Goregaon East, Bombay 400063.

Scientific Sales Corpn., 453-455, Kalbadevi Rd., Bombay 400002.

Scientific & Technical Home, 443, Bhadkamkar Marg, Bombay 400004.

Shital Scientific Inds., 85-87, Nagdevi St., Bombay 400003.

Shivani Scientific Inds., O-16, Bhola Bhagwan Indl. Estate, I. B. Patel Rd., Goregaon East, Bombay 400063.

Silica Ware Pvt. Ltd., 54, C, Chotani Estate, Proctor Rd., Bombay 400007.

Star Scientific, Raut Ind. Estate, 424A, S. Bapat Mrg., Bombay 400016.

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Toshniwal Instruments (Bombay) Pvt. Ltd., 8, Mohatta Bhavan, Off Dr. E. Moses Rd., Worli, Bombay 400018.

Universal Scientific Glass Apparatus Manufg. Ind., 603, J. Shanker Sheth Rd., Bombay 400002.

Vibronics Pvt. Ltd., Kurla Indl. Estate, Shastri Rd., Bombay 400086.

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Altech Industries, 471, P. N. Palayam Rd., P. O. Ganapathy, Coimbatore 641006.

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Eastern Ind. Trdg. Corpn., 92, B. Chittaranjan Ave., Calcutta 700012.

Eastern Scientific Co., 4, College St., Calcutta 700012.

Killearn & Co., 106/C, Raja Dinendra St., Calcutta 700004.

Lawrence & Mayo India Pvt. Ltd., 11, Govt. Place East, Calcutta 700069.

Platinum
Laboratory Apparatus
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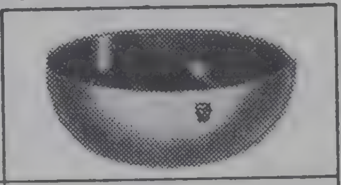
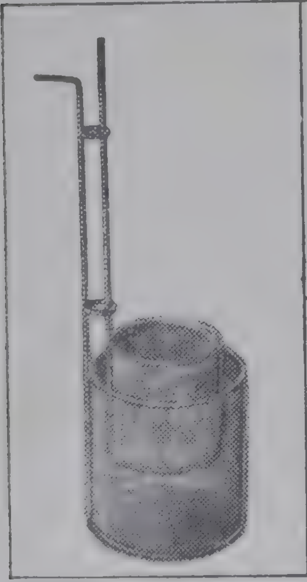
• Crucibles • Dishes • Wires
• Spatulas • Spoons • Boats
• Filter Cones • Tipped Forceps/Tongs • Triangles
• Wire Gauze • Foils
• Electrodes • Pt. Pt/Rh Thermocouple Wires.





Platinum
Lab-Ware
Private Limited
405, Kaliandas Udyog Bhavan,
Post Box No. 19132,
Prabhadevi, Bombay - 400 025.
Phones: 422 - 1111, 422 - 1144
Cable: PLATLAB
Telex: 011-4865 AB: TMI

National Instruments Ltd., 1/1, Raja S. C. Mullick Rd., Jadavpur, Calcutta 700032.
Overseas Trade Corpn., 133, Canning St., Calcutta 700001.
Premier Scientific Glass Co., 26/2A, P. K. Tagore St., Calcutta 700006.
Scientific Glass Works, 35, G. Chatterji Rd., Calcutta 700002.
Scientific Indian Glass Co. Ltd., 98, Christopher Rd., Calcutta 700096.
Scientific Industries, 51/1, Raja Dinendra St., Calcutta 700009.
Scientific Repairs & Trdg. Co. Pvt. Ltd., 13, Canal St., Calcutta 700014.
Scientific Syndicate, 172, B. P. Ganguly St., Calcutta 700012.
Steelsworth Ltd., 17, G. C. Avenue, Calcutta 700013.

LADDERS

Balraj Engg. Works, 2/2, Hosur Rd., Wilson Garden, Bangalore 560027.
Eshak Dada Bamboowala, 72, I. M. Merchant Rd., Khadak, Bombay 400009.
Famous Ladders Mfg. Co., 128-130E, Victoria Rd., Byculla, Bombay 400027.
General Aluminium Corpn., 10, Tumkur Rd., Bangalore 560022.
Jeewanlal (1929) Ltd., 127, Mint St., Madras 600001.
King Ladders Mfg. Co., 5-C, Sonal Indl. Estate, Off Saki-Vihar Rd., Bombay 400072.
Parekh Corpn., 59, I. M. Merchant Rd., Bombay 400009.
Simplex Timber Mart, 51, Pancharatna, Next to Roxy Cinema, Bombay 400004.
Trinity Agencies, 51, Panchratna, Bombay 400004.

LAMINATED PRODUCTS

AR Expresso Systems India Ltd., Suryodaya, 1-10-60/3, Begumpet, Hyderabad 500016.
Bakelite Hylam Ltd., Sanatnagar, Hyderabad 500018.
Bengal Engg. Co. Pvt. Ltd., 12, Dalhousie Sq. East, Calcutta 700001.
Caprihans (I) Ltd., Block D, Shiv Sagar Estate, Dr. A. Besant Rd., Bombay 400018.
Century Laminating Co., 5, Alexandra Court, 60/1, Chowringhee Rd., Calcutta 700020.
Decorative Laminates (India) Pvt. Ltd., Yelval Rd., P.O. Belvadi, Mysore 570005.
Diamond Plastic Co., 108/109, Devaraja Mudali St., Madras 600003.
Fitwel Fabricators, Plot B-1/1, MIDC Indl. Area, Mira 401104. (Thane Dist.).
Formica India Ltd., Sambhaji Mansion, 1260/A, Jangli Maharaj Rd., Pune 411004.
Guardian Plasticote Ltd., 12, Ho Chi Minh Sarani, Calcutta 700016.
Indecor Laminates Pvt. Ltd., B-45, Ind. Estate, Sanatnagar, Hyderabad 500018.
Indo Sack Inds., 7, M. C. Rd., Madras 600021.
Industrial Stores Trading Co., 150, Thambu Chetty St., Madras 600001.
Meghdoot Laminart Ltd., 88/89, NIDC Estate, Lamba Rd., Narol 382405. Ahmedabad Dist.
Novopan India Ltd., 106, Chandralok Bldgs., 111, Sarojini Devi Rd., Secunderabad 500003.
Paradise Electronic Inds., 29, Mahendra Ind. Estate, Sion East, Bombay 400022.
Phenoweld Polymer Pvt. Ltd., Saki-Vihar Lake Rd., Bombay 400072.
Ram Decorative & Indl. Laminates Ltd., Pintovilla, S. K. Bhole Rd., Dadar West, Bombay 400028.
Ranvir & Co., 262, B. B. Ganguly St., Calcutta 700012.
Shiv Laminating & Coating Pvt. Ltd., Jolly Bhavan No. 2, New Marine Lines, Bombay 400020.
Shree Laminations Ltd., P-42, C. I. T. Rd., Scheme No. VI M, Calcutta 700054.
Shyam Printing & Laminating Works, 1, Cathedral Rd., Madras 600086.
Sri Lakshmi Laminates, Crosscut Rd., Coimbatore 641012.
V-Arts, 3-A, Sunmill Compd., Lower Parel, Bombay 400013.
Veneers & Laminations (India) Ltd., M. G. Rd., P. Box No. 1009, Ernakulam, Cochin 682011.
Viral Laminates Pvt. Ltd., 45/46, GIDC Ind. Estate, Odhav, Ahmedabad 382415.
Weldekor Laminates Pvt. Ltd., 95, A. Rehman St., Bombay 400003.
Window Laminators, 8A, Laxmi Bhavan, Jawahar Nagar, LBS Mrg., Bombay 400086.
Wood Polymers Ltd., 59, Bombay Samachar Marg, Bombay 400023.
Wudlam, Nemani Bldg., Opp. Rly. Stn., Santacruz West, Bombay 400054.

LAMPS & ACCESSORIES

(See Electric Lamps and Accessories in this list.)

LANTERNS & STOVES

India Ind. Works Pvt. Ltd., 100/1, Brindaban Mullick Lane, Howrah 711101.
J. K. Dey & Sons, 13, Old China Bazar St., Calcutta 700001.
Kumar Inds., 12A, Amarnath Moolamal Estate, Conn. Place, New Delhi 110001.
Metal Stamping Co., Plot A-35, Road 10, Wagle Ind. Estate, Thane 400604.
Modi Lantern Works, Modinagar 201204, U.P.
Optimohar Inds. Pvt. Ltd., Manu Mansion, 16, S. Bhagat Singh Rd., Bombay 400023.
Pitambardas Lallubhai & Co,, 86, Kansara Chawl, Kalbadevi Rd., Bombay 400002.
Reliable Metal Works, 43, R. S. Nimbkar Mrg., Bombay 400008.
Shah Bros., Shirin Mansion, 14, Kolsha Lane, Bombay 400003.
Sri Ambica Metal Works, 17, Tarak Parmanick Rd., Calcutta 700006.
Umrao Industries, 32–B, Balaram St., Bombay 400007.

LATHE MACHINES

Delhi

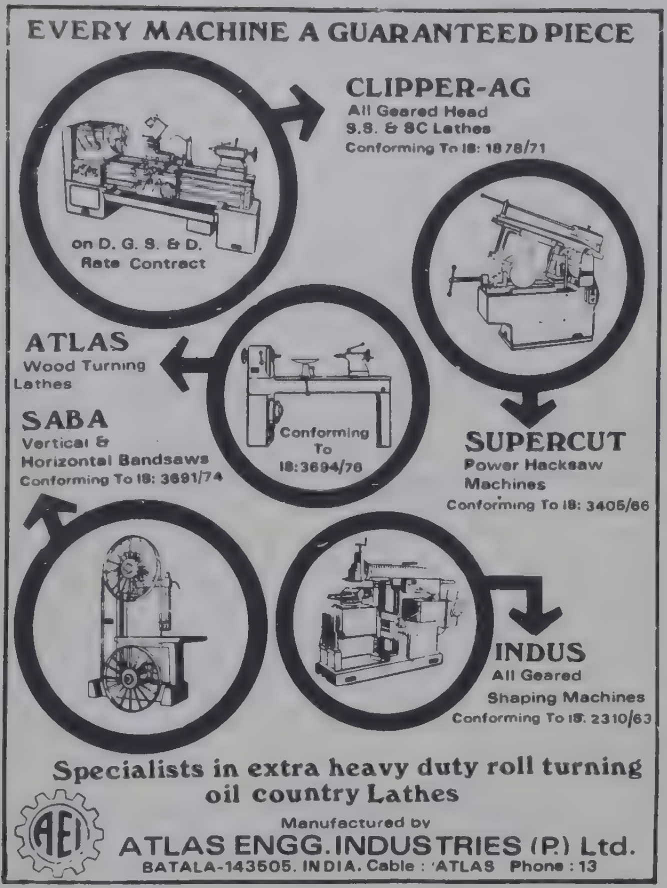
Ashok Machine Tools Corpn., A-15, Mayapuri Indl. Estate, New Delhi 110064.
Chanana Bros., 26, Okhla Indl. Estate, New Delhi 110020.
Leading Engg. Works Pvt. Ltd., 31, New Rohtak Rd., Anand Parbat, Indl. Estate, New Delhi 110005.
Machine Tools & Automobile Works, 8712, Arainganj, Roshanara Rd., Delhi 110007.
United Machine Tools Corpn., 18, D. L. F. Indl. Area, Najafgarh Rd., New Delhi 110015.

Gujarat

Ashok Machine Tools Mfg. Co., Cross Rd., Rakhial, Ahmedabad 380021.
Batliboi & Co., P. O. Baroda Rayon 394220, Surat Dist.
Hasu Inds., Sagar Estate, Mavdi Plot, 1, Navrangpura, Rajkot 360004.
Hind Mechanical Corpn., New Market, Surendranagar 363001.
J. K. Engg. Co., 10, Umakant Pandit Udyog Nagar, Mavdi Plot, Rajkot 360004.
Jignasa Machine Tools, C-1, Aji Indl. Estate, Rajkot 360003.
Jolly Machine Tools, 7, Mavdi Plot, Desai Estate, Rajkot 360004.
New Bharat Engg. Works (Jam.) Ltd., Jamnagar 361002.
Vinay Engg. Works, 400–12, GIDC, Vithal Udyognagar, Vallabh Vidyanagar 388120.

Karnataka

Alfred Herbert (India) Ltd., 13/23, Grant Rd., Bangalore 560001.
Emmar Machine Tools, 2, Magrath Rd., Bangalore 560025
HMT Ltd., 36, Cunningham Rd., Bangalore 560052.
Mysore Kirloskar Ltd., P.O. Yantrapur 577602.
Prakash Home Industries, 6, Independence Rd., Belgaum 590002.



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Kerala

H. M. T. Ltd., Kalamasseri 683104, (Via Alwaye).

Maharashtra

Alex Machine Tools, 16, Sidhpura Indl. Estate, Bombay 400062.
Bakubhai Ambalal, Kaiser-I-Hind Bldg., B. Estate, Bombay 400038.
Bharat Imports & Exports, 6, Oak Lane, Machine House, Bombay 400001.
Cooper Engg. Ltd., Machine Tools Dn., Chinchwad, Pune 411019.
Jayems Engg. Co., Great Western Bldg., Apollo St., Bombay 400023.
K. M. Engineering Syndicate, 105, Apollo St., Bombay 400023.
Kirloskar Bros. Ltd., Udyog Bhavan, Tilak Rd., Pune 411002.
Machine Components, 507, Gultekdi Birmal Wadi, Behind Chakan Oil Mills, Shankersheth Rd., Pune 411037.
Machine Tool Traders, Crossley House, 6, British Hotel Lane, Off Bombay Samachar Mrg., Bombay 400023.
Machinery Mfg. Corpn., 68, Nagindas Master Rd., Bombay 400001.
Machines & Tools Corpn. of India, Lentin Chambers, Dalal St., Bombay 400023.
Popular Machinery Corpn., Agra Bldg., Oak Lane, Bombay 400023.
Sami Inds., 16-B, Girikunj Ind. Estate, Mahákali Rd., Andheri East, Bombay 400093.
Shubh Machinery (Sales) Corpn., 15, Bank St., Bombay 400023.
Tata Engg. & Locomotive Co. Ltd., Chinchwad, Pune 411019.
Traub. India Pvt. Ltd., Pimpri, P.F., Post Bag 2, Pune 411018.

Punjab

Accurate Engg. Works, Dugri Rd., Ludhiana 141002.
Alfa Machinery Makers, G. T. Rd., Batala 143505.
Atlas Engg. Industries, G. T. Rd., Batala 143505.
Beco Engg. Co. Ltd., G. T. Rd., Batala 143505.
Indian Turn-O-Mat Industries, 22–23 R, Indl. Area B, Ludhiana 141003.
Jagdeep Foundry (Regd.), G. T. Rd., Batala 143505.
Mohindra Machinery Makers, G. T. Rd., Simble, Batala 143505.
National Brass Engg. Foundry, 35, Indl. Area, Jullundur 144005.
New Bijli Foundry (Regd.), Kashmir Rd., Batala 143505.
New Punjab Mechanical Works (Regd.), G. T. Rd., Batala 143505.
Prime Machine Tools, 826, Indl. Area B, Ludhiana 141003.
R. K. Machine Tools Pvt. Ltd., Indl. Area A, Ludhiana 141001.
Shakti Engg. Works, G. T. Rd., Batala 143505.
Sharda Foundry and Engg. Works, G. T. Rd., Batala 143505.

Tamil Nadu

Alfa Machine Tools, 6, Second Line Beach, Madras 600001.
Gedee Weiler Pvt. Ltd., Gopal Bagh, 317, Avanashi Rd., Coimbatore 641018.
Madras Machine Tool Mfrs. Ltd., Singanallur, Coimbatore 641005.

West Bengal

National Machine Inds., 83/1, Madan Mohan Burman St., Calcutta 700007.
Pathak Inds., 117, G. T. Rd., Salkia, Howrah 711106.
Textile Machinery Corpn. Ltd., P.O. Belgharia 700056, 24 Parganas.

LEAD & LEAD PRODUCTS

A. K. Motiwala, 145, Lohar Chawl, Bombay 400002.
Gemini Corpn., 99, Surat St., Bombay 400009.
Hooseini Metal Rolling Mill Pvt. Ltd., 66-68, N. Dhuru St., Bombay 400003.
Indian Lead Pvt. Ltd., Rampart House, 6th Flr., K. Dubash Mrg., Bombay 400023.
K. K. Nag Pvt. Ltd., D-3, Bhosari Ind. Estate, Pimpri, Pune 411018.
Standard Metal Works Pvt. Ltd., 17, Tardeo Bridge, Bombay 400034.
Udyogin Metal Inds., 72/A, Kandivli Indl. Estate, Kandivli West, Bombay 400067.
Universal Metal Inds., 43, Bhandari St., Bombay 400004.

LEATHER & LEATHER PRODUCTS

Andhra Pradesh

Deccan Leathers Ltd., 6-3-680–B, Punjagutta, Hyderabad 500004.
K. L. Industries, 1-92, Vani Nagar, Bowenpally, Hyderabad 500011.
Vinyllora Ind. Pvt. Ltd., 58/3, Ranigunj Circle, M. Gandhi Rd., Secunderabad 500003.

Delhi

Eastern Leathers, Dakshineshwar, 10, Hailey Rd., New Delhi 110001.
Nava Bharat Enterprises Pvt. Ltd., 101-A, Surya Kiran, K. Gandhi Marg, New Delhi 110001.
Vijaya Leather Ind. (Regd.), 142, Ghaffar Mkt., Karol Bagh, New Delhi 110005.

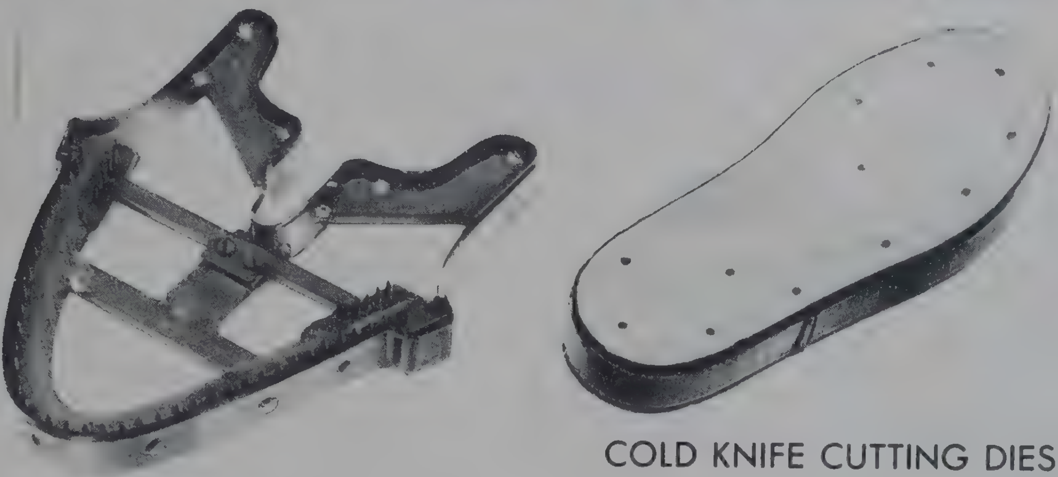
Gujarat

Beltex Pvt. Ltd., Naroda Back Rd., Ahmedabad 380002.
Gujarat Leather Industries Ltd., Super Mkt. Premises, Near Handloom House, Ashram Rd., Ahmedabad 380009.
International Chrome Leather Co., Santram Bldg., Nadiad 387001.
Kumar Inds., 19, Indl. Area, Naroda, Ahmedabad 382330.
Pickers Ltd., Naroda Back Rd., Ahmedabad 380002.
Tikelon India, 2, Harshid Chambers, Ashram Rd., Ahmedabad 380013.

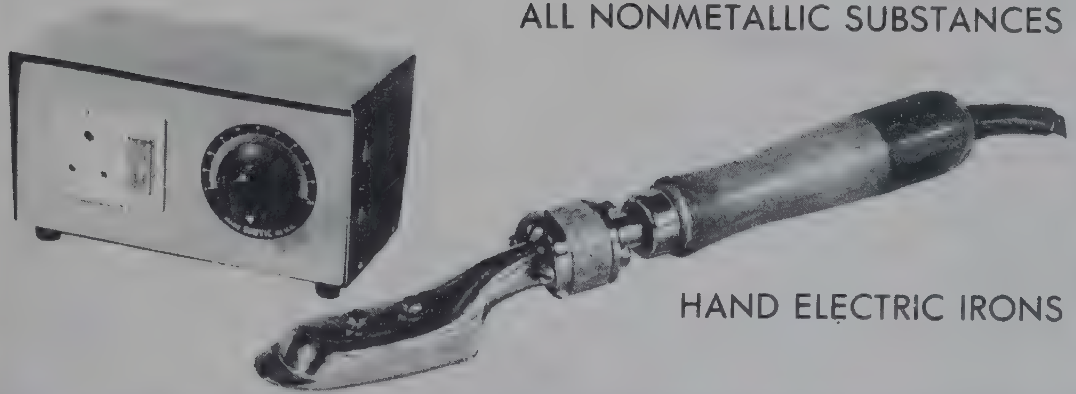
Kerala

Indo Leather Inds., Eravipuram, Quilon 691001.
Vanjinad Leathers Ltd., Post Box 1751, Cochin 682016.

MACHINES, KNOW-HOW AND ACCESSORIES FOR LEATHER GOODS & FOOTWEAR



COLD KNIFE CUTTING DIES
FOR
ALL NONMETALLIC SUBSTANCES



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Spearheading the thrust in development of traditional leather industry in U.P.

U.P. State Leather Development & Marketing Corporation Ltd., a state Govt. owned organisation is involved in the manufacturing of shoes and leather accessories using high quality leather and advanced technology.

The Corporation also provides manufacturing facilities to the artisans and weaker section by way of training, providing raw material and other related facilities at various Common Facility Centres being run in different towns of Uttar Pradesh. With the back up of 15 retail outlets all over the state, the Corporation is keeping pace with the ever growing demand for leather products.

The U.P. State Leather Development & Marketing Corporation Ltd.,
(A U.P. Govt. Undertaking)
16/7, Sadar Bhatti Crossing,
AGRA-282 003.

Quality Leather products from a U.P. Govt. undertaking.

Maharashtra
Art Home, 4, Jerbai Baug, Byculla, Bombay 400027.
Artistic Leather Goods & Accessories, National House, Tulloch Rd., Bombay 400039.
Bharat Leather Works, 48, Sleater Rd., Bombay 400007.
Bombay Leather Goods Depot, 14, Shamseth St., Bombay 400002.
Bonafide Industrial Works, 71, Kambekar St., Bombay 400003.
Bright Leather Ind., 338, A. Rehman St., Bombay 400003.
Dharampur Leather Cloth Co. Ltd., 10, Chowpatty Sea Face, Bombay 400007.
Gold Filled Leather Works, 157-161, S. Gandhi Mrg., Bombay 400002.
Kathiawar Inds. Ltd., 19, Bank St., Bombay 400023.
Leather Art Ind., Swadeshi Market, Bombay 400002.
Maharashtra Leather Works, 20, Nishanpada Rd., Bombay 400009.
National Leather Cloth Mfg. Co., Akurli Rd., Kandivli East, Bombay 400067.
Noble Leather Works, 82-86, A. Rehman St., Bombay 400003.
Pioneer Leather Works, Sitaram Bldg., Crawford Market, Bombay 400001.
Santosh Leather Corpn., Poonawala Chawl, Dharavi, Bombay 400017.
Sharda Manufrs., 32, 3rd Bhoiwada Lane, Bombay 400002.
Super Leather Works, 356, A. Rehman St., Bombay 400003.
Western India Tanneries Ltd., 2-A, Dharavi Rd., Bombay 400017.

Tamil Nadu
A. Abdul Shukoor & Co., 35, Broadway, Madras 600001.
Asia Finished Leather (Garment & Shoe) Pvt. Ltd., 12, Ramapillai St., Periamet, Madras 600003.
Dindigul Co-op. Leather Works Ind., Society Ltd., Dindigul 624001.
Gordon Woodroffe Leather Mfg. Co. Ltd., 1/21, North Beach Rd., Madras 600001.
Jayam Trading Corpn., 26, K. Sadayappan St., Madras 600003.
K. Rajagopal & Co., 145, Patel Rd., Coimbatore 641009.
Leather Crafts (India) Pvt. Ltd., 1–78, Rajaratnam Rd., Ullaharam, Madras 600091.
M. A. Khizar Hussain & Sons, 6, V. V. Koil St., Periamet, Madras 600003.
Maypar Leather Mfg. Co. Pvt. Ltd., 185, Poonamalee High Rd., Madras 600010.
Sreenivas & Co., 10, Sydenhams Rd., Madras 600003.
T. Abdul Wahid & Co., 18-A, Vepery H. Rd., Madras 600003.
Tiruchy Leather Goods Producers Ind. Co-op. Society, Tiruchirapalli 620001.
Usman Sharif & Co., Post Box 1926, Madras 600001.

Uttar Pradesh
Belting Corpn., 98/138, Purwa Hiraman, Kanpur 208001.
Industrial Leather Mfg. Co., 124-B/618, Govind Nagar, Kanpur 208006.
K. L. Industries, 124B/B, Govindnagar, Kanpur 208006.
Kohli Indl. Corpn. Pvt. Ltd., 13/384, Civil Lines, Kanpur 208001.
Prime Products Ltd., P. Box No. 80, Kanpur 208001.
Saddleways, 34/119, Chawal Mandi, Kanpur 208001.
Surisons & Co., Post Box No. 410, Kanpur 208001.
Tannery & Footwear Corpn. of India Ltd., 13–400, Civil Lines, Kanpur 208001.
Washer Corpn., 45, Halim Market, Chamanganj, Kanpur 208001.
Webbing & Belting Factory Ltd., G.T. Rd., Ghaziabad 201001.

West Bengal
Arts & Prints Pvt. Ltd., 31, Park Mansions, Park St., Calcutta 700016.
Birkmyre Bros. Ltd., 87, Stephen House, Dalhousie Sq. East, Calcutta 700001.
Calcutta Leather & Allied Products Marketing Co-op. Society Ltd., 13-S, Tangra Rd., Calcutta 700014.
Chinese Leather Syndicate Ltd., 56, South Tangra Rd., Calcutta 700039.
East Asia Skin Corpn., 20, Tiretta Bazar St., Calcutta 700073.
Eastro Leathers, 62, Bentinck St., Calcutta 700001.
I.E.C. Ltd., 47, South Tangra Rd., Calcutta 700039.
Industrial Leather & Rubber Works, 10, Canning St., Calcutta 700001.
International Tanning Industries, 4, Ghulam Jilani Khan Rd., Calcutta 700039.
J. H. Fenner & Co. (India) Pvt. Ltd., 56-D, Free School St., Calcutta 700016.
Morrison & Cottle Pvt. Ltd., 30-G, J. Nehru Rd., Calcutta 700016.
National Tannery Co. Ltd., 1, Middleton St., Calcutta 700001.
P. Basak & Co., 9, Chidam Modi Lane, Calcutta 700006.
Tewari International, 14, Ch. Chowk St., Calcutta 700013.

LEATHER PRODUCTS MANUFACTURING MACHINES
Harman Leather Machines, 24, Kala Bhavan, Mathew Rd., Bombay 400004.

LIFTS
(See under Electric Lifts in this list.)

LIME & ALLIED PRODUCTS
Avon Trading Corpn., 122, Hind Rajasthan Bldg., 95, D. Phalke Rd., Bombay 400014.
Bharat Colour Trading Co., 16/46, Tilak Rd., Ghatkopar East, Bombay 400077.
Burma Lime & Chemical Co. Ltd., 22/3, Jhama Pukur Lane, Calcutta 700009.
Dyershine & Chemicals Pvt. Ltd., 10, Alipur Rd., Delhi 110054.
Laxmi Lime Mineral Co., Hararwala Bldg., Islampura, Bombay 400004.
Light Precipitated Chemicals Ltd., Dharwar 580007.
Mahendra Bipin Chemical Industries Ltd., Room No. 1, 2nd Flr., Bldg. No. 2, 8, Horniman Circle, Bombay 400023.
Mayur Inds., 45/46, Indl. Area, Jodhpur 342003.
Sannover Lime Enterprise, 48, Kamlagarh Rd., Dehra Dun 248001 (U.P.).
Super Chem Lime & Allied Products, 2/34, Tardeo Airconditioned Mkt., Bombay 400034.
Uttrakhand Minerals Marketing Corpn., 62, Gandhi Rd., Dehra Dun 248001, U.P.
Vigyan Chemical Inds., 90, Raja Rd., Dehra Dun 248001.

LOCKS & FITTINGS
Arora Mfg. Co., E-161, Focal Point, Ludhiana 141010. (Punjab).
Bharat Lock House, 5140-41, Gandhi Mkt., Sadar Bazar, Delhi 110006.
De's Lock Ind., 31, Haripada Dutta Lane, Calcutta 700033.
Games & Novelties Pvt. Ltd., 5007, Sirkiwalan, Delhi 110006.
Globe Engrs. Pvt. Ltd., Modinagar 201201, Ghaziabad Dist., U.P.
Godrej & Boyce Mfg. Co. Ltd., Godrej Bhavan, Home St., Bombay 400023.
Hindustan Udyog, E-34, Focal Pt., Ludhiana 141010 (Punjab).
Honlock Inds., Post Box 93, Aligarh 202001.
Locks & Padlocks (India), Chheda Engg. Works, Interlink Ind. Estate, Caves Rd., Jogeshwari (East), Bombay 400060.
Mag Enterprises, 105, A-3, Dhanraj Indl. Estate, Sun Mill Lane, Lower Parel, Bombay 400013.
Nerve Lock Co., C-7, Indl. Estate, Aligarh 202001. U.P.
R. P. Locks Co., XIII/5612, Gandhi Mkt., Sadar Bazar, Delhi 110006.
Regal Industrial Corpn., 156-158, Mohideen Manzil, E. Rahimtulla Rd., Bombay 400003.
Security Equipment Mfrs. Ltd., Post Box 330, Ahmedabad 380001.
Shri Krishna Ind., 4, Ind. Estate, Kanpur 208012.
Tiger Locks Ltd., Marris Rd., Aligarh 202001.
Vaultex Inds., 4/24, Indl. Estate, Gorwa Rd., Vadodara 390016.

LUBRICATING OILS
(See under Petroleum Products in this list.)

LUGGAGE

(See under Travelling Requsites in this list.)

MACHINE TOOLS

(See 'Tools – Machine' in this list.)

MACHINERY

Alfred Herbert (India) Ltd., Kaiser-i-Hind Bldg., Sprott Rd., Ballard Estate, Bombay 400038.

Associated Engg. Co., Ghaswala Estate, Jogeshwari, Bombay 400060

Balmer Lawrie & Co. Ltd., 21, Netaji Subhas Rd., Calcutta 700001.

C. Bole & Co., 61, Narayan Dhuru St., Bombay 400003.

Engg & Industrial Foundry Co., Mettupalayam Rd., Coimbatore 641011

Falcon Enterprises, Menon Estate, S. V. Rd., Goregaon West, Bombay 400104

Finex Sieves Pvt. Ltd., A-1, 606, Makarpura, Vadodara 390010

Gujarat Machinery Mfrs. Pvt. Ltd., 470, Worli Rd., Bombay 400025.

HBD Machines Mfg. Corpn., 120, Bharat Ind. Estate, Tokersi Jivraj Rd., Bombay 400015

H. S. Sobha Singh & Sons, Nagin Mahal, 82, Veer Nariman Rd., Bombay 400020.

Himalaya Machinery Pvt. Ltd., 608, GIDC, Makarpura, Vadodara 390010.

Hindustan Engg. Inds., 234, C. M. Azad Rd., Bombay 400008.

Indo-German Shoe Machine Co. Pvt. Ltd., 107, Govt. Indl. Estate, Bombay 400067.

Industrial Machinery Mfrs., 14-B, Kurla Industrial Estate, Near Narayan Nagar, Ghatkopar, Bombay 400086.

Industrial Machinery Mfrs. Pvt. Ltd., Near New Cotton Mills, Amraiwadi, Ahmedabad 380008.

Jamshedpur Engg. & Machinery Mfg. Co. Pvt. Ltd., Rly. Stn. Rd., Tatanagar, Jamshedpur 831004

Lynx Machinery Ltd., 104, Ultadanga Main Rd., Calcutta 700067

Machinery Mfg. Corpn., 68, Medows St., Bombay 400023.

Mechano International, 236, Hind Rajasthan Bldg., D. Phalke Rd., Dadar, Bombay 400014.

Meghraj Machines, 2/9, Ind. Estate, Gorwad, Vadodara 390003.

National Machinery Mfg. Ltd., P. Box 37, Vadodara 390001.

Orum Engg. Co., 104, Govt. Indl. Estate, Bombay 400067.

Patil Machines Pvt. Ltd., 107, Arun Chambers, Tardeo Rd., Bombay 400034

Perfect Machine Tools Co. Pvt. Ltd., Bell Bldg., Sir P. M. Rd., Bombay 400001.

Pioneer Engg. Works, Naroda Rd., Ahmedabad 380002.

Popular Machinery Corpn., Agra Bldg., Oak Lane, Bombay 400023

Prakash Fabricators, Post Box 207, Kolhapur 416001.

Premier Machines Pvt. Ltd., 59, Najafgarh Rd., New Delhi 110015.

Rita Grinders, G. T. Rd., Kalsinagar, Ludhiana 141003.

SLM-Maneklal Inds. Ltd., Mistry Bhavan, D. Vachha Rd., Bombay 400020.

Santosh Ind., A-1, Sona Udyog, Parsi Panchayat Rd., Andheri (E), Bombay 400069

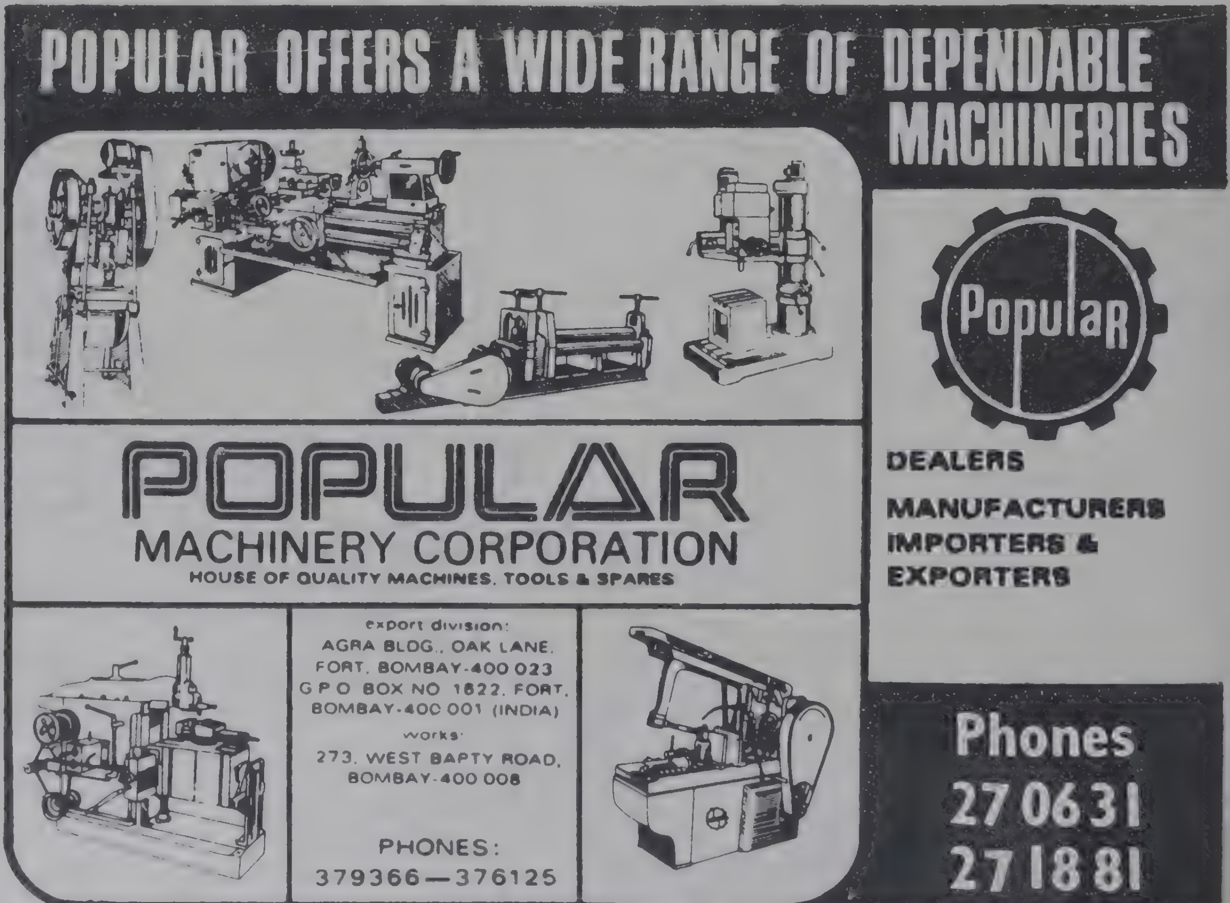
Saraswati Indl. Syndicate Ltd., Yamunanagar 135001. Ambala Dist., Haryana.

Sardar Electric & Engg. Co., Seksaria Ind. Estate, S. V. Rd., Malad, Bombay 400064.

Teknoworks (India), L. B. Shastri Marg, Bhandup, Bombay 400078

Triveni Engineering Works Ltd., NSIC Building, P.O. Udhyognagar, Naini 211008. Allahabad Dist.

Utkal Machinery Ltd., 41, Chowringhee Rd., Calcutta 700016.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BOMBAY-400 001 (INDIA)
works:
273, WEST BAPTY ROAD,
BOMBAY-400 008

PHONES:
379366—376125

Phones
27 06 31
27 18 81

MAGNETS & MAGNETIC APPLIANCES

Amicron Magnetics, 45, Rani Jhansi Rd., New Delhi 110055.
Associated Magnets, 307, Embassy Centre, N. Point, Bombay 400021.
Auroville Electronics & Allied Inds. Pvt. Ltd., 24, Rue Francois Marin, Pondicherry 605001.
Automatic Controls, 5, Russell St., Calcutta 700016.
Bengal Engg. Co. Pvt. Ltd., 12, Dalhousie Sq. East, Calcutta 700001.
Deepak Inds. Ltd., Magnetics Dn., 16, Hare St., Calcutta 700001.
East Coast Enterprises Ltd., 33, Brabourne Rd., Calcutta 700001.
Elektromag, Unique Indl. Estate, Off Veer Savarkar Rd., Prabhadevi, Bombay 400025.
Excel Magnets Pvt. Ltd., 22D, S.A. Brelvi Rd., Bombay 400023.
Ferri-Mag India, Post Box 27, Chinchwad, Pune 411019.
General Magnetics, Post Box 4422, Bangalore 560044.
Indu Magnetics, Plot A/21/4, Rd. No. 10, Indl. Estate, Udna 394210. Gujarat State.
J. K. Industries, Off W. Express Highway, Nemjibhai Compd., S. N. Dube Rd., Dahisar East, Bombay 400068.
Jaipur Metals & Electricals Ltd., Near Railway Station, Jaipur 302001.
Konel Corpn., 401-A, Niranjan, 99, Marine Drive, Bombay 400002.
Permanent Magnets Ltd., Dattapada Rd., Borivli East, Bombay 400066.
Sarga Engg. Corpn., A-7, Parul Kunj, 267, SVP Rd., Borivli West, Bombay 400092.
Southern Magnetics Pvt. Ltd., II/3, Instronics Estate, Tiruvanmiyur, Madras 600041.
Sterling Magnets Pvt. Ltd., 25, Unique Indl. Estate, Prabhadevi, Bombay 400025.
Syp Engg. Corpn., Patel Indl. Estate, S. V. Rd., Dahisar East, Bombay 400068.
Tempo Industrial Corpn., 394, Dr. Bhadkamkar Mrg., Bombay 400004.

MARBLES & TILES

Abu Marble Mining Pvt. Ltd., 59, R. A. Kidwai Rd., Bombay 400019.
Acme Tiles Manufg. Co., 49, M. Azad Rd., Bombay 400004.
Adenwala Marbles Pvt. Ltd., 464/70, Duncan Rd., Bombay 400004.
Anil Hardboards Ltd., Kanjur Mrg., Bombay 400078.
Bharat Tiles & Marble Pvt. Ltd., 32, Apollo St., Bombay 400023.
Bhor Inds. Ltd. (Bldg. Projects Divn.), 386, V. Savarkar Mrg., Bombay 400025.
Bombay Tiles, 110, Raheja Centre, N. Point, Bombay 400021.
Delhi Marble Inds., 3, Hailey Rd., New Delhi 110001.
Diamond Marbles Pvt. Ltd., P. Box 40, Udaipur 313001.
Esco (Poona) Pvt. Ltd., 2432, East St., Pune 411001.
Essen Tiles Flooring, 5, Nehru Stadium, V.O.C. Park, Coimbatore 641018 (Tamil Nadu): Narasimhapuram, Kanjikode West, Palghat 678623 (Kerala).
Jain Marble Factory, P. Box 20, Makrana 341505 (Rajasthan).
Madurai Meenakshi Mosaic, 16, Cenotaph Rd., Alwarpet, Madras 600018.
Mahalakshmi Inds., B-4, Mettupalayam Ind. Estate, Pondicherry 605001.
Mek Marble, 456, Duncan Rd., Bombay 400004.
Metro Marble Inds., 87, Gandhinagar, Off Dr. E. Moses Rd., Worli, Bombay 400018.
Mosaic Paarquettes, 1262, Rajajinagar, II Stage, Bangalore 560010.
National Tiles & Ind. Pvt. Ltd., 31, Hamam St., Bombay 400001.
Neelam Marbles & Inds. Pvt. Ltd., 2439, Patwari Ka Rasta, Bapu Bazar, Jaipur 302003.
New India Mosaic & Marble Co. Pvt. Ltd., Ind. Estate, Lalbaugh, Bombay 400012.
Polymarble Mfg. Co. Pvt. Ltd., Sangli Bank Bldg., P. Nariman St., Bombay 400001.
Prakhasam Civil Engg. Inds., C-41, Ind. Estate, Yadavagiri, Mysore 570002.
Prince Marble Inds., Bharat Tiles Compd., Opp. ICI Godown, Reay Rd. Rly. Stn., Bombay 400033.
Rajasthan Marble Inds., 3/1, Patel House, Hosur Main Rd., Adugodi, Bangalore 560030.
S. K. Tile Industries, 89A, Mittal Chambers, N. Point, Bombay 400021.
Shree Sainath Cement Products, C/o Bhikhabhai Gordhandas & Co., 311, N. Natha St., Bombay 400009.
Shrinagar Marbles, 161/1, 1st Main Rd., Seshadripuram, Bangalore 560020.
Somany Pilkingtons Ltd., 2, Red Cross Place, Calcutta 700001.
Superfine Marbles, C/o Filmalaya Studio, Ceaser Rd., Amboli, Andheri West, Bombay 400058.
Swastik Marble Inds., Rupam, 152, Jawaharnagar, Goregaon West, Bombay 400062.
Tara Tiles, C/o Post Box 201, Shahupuri, Kolhapur 416001.
Tolia Tiles Inds., 84, Bombay Timber Mkt., Reay Rd., Bombay 400010.
Universal Tiles Ltd., 6-3-612/3 A. & B., Anand Nagar Colony, Khairatabad, Hyderabad 500004.

MARINE CRAFTS & ENGINES

Aero Marine Inds. Pvt. Ltd., Super A-7, Guindy Ind. Estate, Madras 600032.
Andrew Yule & Co. Pvt. Ltd., 32, Nicol Rd., Ballard Estate, Bombay 400038.
Chowgule & Co. Pvt. Ltd., Chowgule House, Marmugao Harbour 403601. Goa.
Garden Reach Engineers & Shipbuilders Ltd., 43/46, Garden Reach Rd., Calcutta 700024.
Geeta Engg. Works Pvt. Ltd., 602-B, Poonam Chambers, Shivsagar Estate, Worli, Bombay 400018.

MATERIAL HANDLING EQUIPMENT

CONVEYORS

(See under 'Conveyors' in this list.)

FORK LIFT TRUCKS, LIFTING JACKS

Andhra Pradesh

Krishi Engines Pvt. Ltd., Sanatnagar, Hyderabad 500018.

Bihar

Tata-Robinson Fraser Ltd., 11, Station Rd., Jamshedpur 831007.

Gujarat

Gujarat Ind. Trucks Ltd., Surat Navsari Rd., P.O. Baroda Rayon 394220. Surat Dist.

Haryana

Talbros Automotive Components Ltd., 74, Sector 6, Faridabad 121006.

Maharashtra

Associated Mfrs. & Engrs., 11, Gulab Park, Borla-Koliwada Rd., Chembur, Bombay 400074.
Brady & Morris Engg. Co. Ltd., 12, V. Nariman Rd., Bombay 400001.
Electro Fabricators Pvt. Ltd., A-301, Wagle Indl. Estate, Rd. No. 32, Thane 400604.
Fibro Indl. Trading Co., Kurla-Andheri Rd., Sakinaka, Bombay 400072.
Godrej & Boyce Mfg. Co. Pvt. Ltd., Godrej Bhavan, Home St., Bombay 400023.
Hoist-O-Mech Ltd., Industry Manor, Opp. Bengal Chemicals, Bombay 400025.
Ingersoll-Rand (India) Ltd., Maybaker House, S. K. Ahire Marg, Bombay 400025.
Jost's Engg. Co. Ltd., Great Social Bldg., Sir P. Mehta Rd., Bombay 400021.
Kanubhai Engineers Pvt. Ltd., 117, Bajaj Bhavan, N. Point, Bombay 400021.

Larsen & Toubro Ltd., L & T House, Ballard Estate, Bombay 400038.
Laser Electronics, 70, Ambedkar Rd., Opp. Aurora Cinema, Bombay 400019.
Mahindra Owen Ltd., 148, Bombay-Pune Rd., Pimpri, Pune 411018.
Mistry Iron & Steel Works, Vijay Chambers, Tribhuvan Rd., Bombay 400004.
Omega Engg. Co., 149, Gamdevi Rd., Bombay 400078.
Premier Automobiles Ltd., Construction House, W. Hirachand Marg, Bombay 400038.
Tata Engg. & Locomotive Co. Ltd., Bombay House, Homi Mody St., Bombay 400023.
Tractel Tirfor (India) Pvt. Ltd., 30, Altamount Rd., Bombay 400026.
V. S. Lifting Tackles, 11, Harichand Textile Mill Compd., Vikhroli, Bombay 400079.
Voltas Ltd., Volkart Bldg., Graham Rd., B. Estate, Bombay 400038.

Tamil Nadu

Alfomega Hydroworks Pvt. Ltd., 146, Lattice Bridge Rd., Madras 600041.
Conveyor Equipment Co. Pvt. Ltd., 3, Race Course Rd., Guindy, Madras 600032.
Vikram & Co., No. 2, Lattice Bridge Rd., Madras 600020.

Uttar Pradesh

Pulling & Lifting Machines Pvt. Ltd., B/10, Indl. Area No. 3, Meerut Rd., Ghaziabad 201001.

West Bengal

Arun Industries, 26, Upper Chitpur Rd., Calcutta 700001.
Carter Pooler & Co. Ltd., 1, K. N. Dutta Rd., Calcutta 700036.
Electric Construction & Equipment Co. Ltd., Parbangla, Batanagar 743313. 24-Parganas Dist.
Kaybee Instruments & Equipment Corpn., 60/1, Chowringhee Rd., Calcutta 700020.
Mars Engg. Works, 21, B. B. Ganguly St., Calcutta 700012.
Oriental Trading Corpn., 134, B.R.B.B. Rd., Calcutta 700001.

PULLEYS, PULLEY BLOCKS, CRANES, HOISTS, ETC.

Delhi

Amta Ind. (India), 17, DLF Ind. Area, New Delhi 110015.
Ardee Mechanical Inds. Pvt. Ltd., 28, Barakhamba Rd., New Delhi 110001.
Atlas Pulley Mfg. Co., 5392, Shradhanand Marg, Delhi 110006.
Avon Hoists, 505, Manasarovar, 90, Nehru Place, New Delhi 110019.
B. K. Khanna & Co. Pvt. Ltd., 14-F, Central Place, New Delhi 110001.
Benlaks (India) House, Shradhanand Marg, Delhi 110006.
Dass Hitachi Pvt. Ltd., 21-A, Janpath, New Delhi 110002.
Dehati Engg. Works, 15, Najafgarh Rd., Ind. Area, New Delhi 110015.
Goodlift (India) Inds. (Regd.), A-12, St. No. 4, Anand Parbat Ind. Area, New Rohtak Rd., New Delhi 110055.
Indudyog Co. Pvt. Ltd., 40, Ind. Estate, Okhla, New Delhi 110020.
K. G. Khosla & Co. Pvt. Ltd., 1, D. B. Gupta Rd., New Delhi 110055.
Lifting Equipment & Accessories, B-13/1, Jhilmil Indl. Area, Shahdara, Delhi 110032.
Mechanical Movements Pvt. Ltd., 3, N. Subhas Mrg., New Delhi 110002.
Prem Nath Nanda & Sons, Hauz Qazi, Delhi 110006.
Pulling & Lifting Machines Pvt. Ltd., 12, Sriram Rd., Civil Lines, Delhi 110006.
R. D. Varma & Co. Pvt. Ltd., 28, Barakhamba Rd., New Delhi 110001.
Reva Engg. Inds. Pvt. Ltd., F-25/1, Okhla Indl. Area, Phase II, New Delhi 110020.
Shakti Pulley Mfg. Co., 5391, Light Bldg., Shradhanand Marg, Delhi 110006.
Simplicity Cranes Pvt. Ltd., 1001, Nirmal Towers, Barakhamba Rd., New Delhi 110001.
Tractel Tirfor India Pvt. Ltd., 302, Harsh Bhawan, 64-65, Nehru Place, New Delhi 110019.

Gujarat

Elecon Engg. Co. Ltd., Vallabh Vidyanagar 388120.
Pioneer Equipment Co. Pvt. Ltd., 432, Padra Rd., Vadodara 390005.
Sayaji Iron & Engg. Co. Ltd., Chhani Rd., Vadodara 390002.

Haryana

Escorts Ltd., 18/4, Mathura Rd., Faridabad 121001.

Karnataka

Armatic, 26, M. M. Ind. Estate, Jayanagar West, Bangalore 560011.
Armsel (Bangalore), 25, Kormangla Indl. Layout, Hosur Rd., Bangalore 560034.
C.M.C. Works, 19/1, Platform Rd., Bangalore 560020.
Mantons (Bangalore) Pvt. Ltd., No. 3, Corpn. Bldg., Residency Rd., Bangalore 560025.
Steel Construction Co. Pvt. Ltd., 41, Hardinge Rd., Bangalore 560001.

Kerala

Kerala Electrical and Allied Engg. Co. Ltd., Mamala, Cochin 682305.

Maharashtra

Abdulhusein Peerbhoy & Sons, 66-68, Peerbhoy Bldg., Narayan Koli Mrg., Bombay 400003.
Arms Electricals & Electronics Pvt. Ltd., India Printing House, 42, G. D. Ambekar Mrg., Wadala, Bombay 400031.
Ashton Green & Co., 118, Sir Vithaldas Chambers, 16, Apollo St., Bombay 400023.
B. R. Hermann & Mohatta (I.) Pvt. Ltd., Mustafa Bldg., Sir P. Mehta Rd., Bombay 400001.
Bardai Industries Pvt. Ltd., Zakeria Bunder Rd., Sewri, Bombay 400015.
Bharat Textile Inds., Darukhana, Reay Rd., Bombay 400010.
Bombay Cranes Pvt. Ltd., 778, 5th Rd., Khar, Bombay 400052.
BUC Mechanical Equipments Pvt. Ltd., 119 ABC, Govt. Ind. Estate, Kandivli West, Bombay 400067.
C. S. Hoist (India), 17/B-1, Shiv Shakti Indl. Estate, LBS Mrg., Ghatkopar, Bombay 400086.
Camax India, 99/103, 2nd Flr., Lohar Chawl, Bombay 400002.
Consolidated Hoists Pvt. Ltd., Plot No. 29-30, Gultekdi Indl. Estate, Pune 411037.
Crescent Iron & Steel Corpn. Ltd., Ind. Area, Lalbaug, Bombay 400012.
Deccan Cranes & Hoists, 4111, Hind Rajasthan Bldg., D. Phalke Rd., Bombay 400014.
Dynacraft Machine Co. Pvt. Ltd., C. D. Barfiwalla Marg, Bombay 400058.
Eastern Machinery & Trdg. Co., Imperial Chambers, Wilson Rd., B. Estate, Bombay 400038.
Eastern Trading & Engg. Co., 708/709, Raheja Chambers, 213, N. Point, Bombay 400021.
Eddycranes Engineers Pvt. Ltd., 8/C, Choksey Bldg., Gamdevi, Bombay 400007.
Electro Fabricators Pvt. Ltd., A-301, Wagle Indl. Estate, Rd. No. 32, Thane 400604.
Electromag Devices, Unique Industrial Estate, Veer Savarkar Marg, Prabhadevi, Bombay 400025.
Esoofali Esmailji Karachiwalla & Co., 43-45, N. N. Koli Mrg., Mandvi, Bombay 400003.
Esskay Lifting Tackles, Harichand Textile Mills Compd., LBS Mrg., Vikhroli West, Bombay 400079.
Express Industrial Services Pvt. Ltd., Mittal Tower, C Wing, 14th Flr., N. Point, Bombay 400021.
Fibro Industrial Trading Co., Kurla-Andheri Rd., Sakinaka, Bombay 400072.

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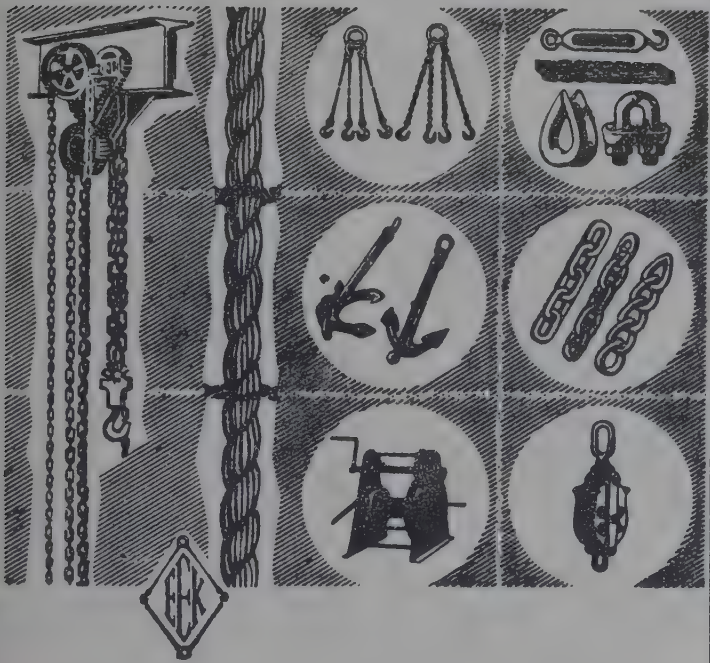

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FMC Engg. Works Pvt. Ltd., Sonal Indl. Estate, Off Saki Vihar Rd., Bombay 400072.
Garlic Engg., Garlick House, 414, S. Bapat Mrg., Bombay 400013.
Hercules Hoists Ltd., Minerva Ind. Estate, Opp. Ralliwolf, L. B. Shastri Marg, Mulund, Bombay 400080.
Hercules Mechanical Works, B-59, Wagle Ind. Estate, Thane 400604.
Hoist-O-Mech Ltd., Pokhran Rd. No. 2, Majiwada, Thane 400606.
Indmag Pvt. Ltd., 17, Off Arthur Bunder Rd., Bombay 400005.
Industrial Marketing Services, Jiji House, 1st Flr., Ravelin St., Bombay 400001.
Industrial Pulley Centre, 55, Bhajipala St., Bombay 400003.
Jashvant C. Shah & Co., Bharati Nivas, Block 6, 1st Flr., Besant Rd., Santacruz West, Bombay 400054.
K. T. Steel Ind. Pvt. Ltd., 21, Broach St., Bombay 400009.
Kalton's Engg. Works Pvt. Ltd., Jari Mari, Kurla-Andheri Rd., Bombay 400072.
Khandelwal Udyog Ltd., Kurla-Kirol Rd., Bombay 400086.
Larsen & Toubro Ltd., L & T House, Ballard Estate, Bombay 400038.
Mac Industrial Systems, Post Box 26614, Bombay 400019.
Materials Handling Engg. Co., 1, Sidhpura Ind. Estate, Masrani Le., Bombay 400070.
McKenzies Ltd., Donde Marg, Bombay 400015.
Mech-Electricals, 16, Kapadia Ind. Estate No. 3, 122-124, M. Vasanji Rd., Bombay 400093.
Millar's Machinery Co. Pvt. Ltd., Pokhran Rd. No. 2, Thane 400601.
New Standard Engg. Co. Ltd., N.S.E. Estate, Goregaon (East), Bombay 400063.
Power Gear Engg. Co., Jeevan Sahakar, Sir P. M. Rd., Bombay 400001.
R. N. Suresh Tools Corpn., 53, Commercial Chambers, Masjid Bunder Rd., Bombay 400003.
Radiant Electric & Machinery Co., Parekh Market, Kennedy Bridge, Bombay 400004.
Richardson & Cruddas (1972) Ltd., Byculla Iron Works, Bombay 400008.
Roberts, McLean & Co. Ltd., Ilaco House, Sir P. Mehta Rd., Bombay 400001.
Roman Inds., A-1 Inds. Annexe, J. B. Nagar, Andheri, Bombay 400059.
Shah Patel & Co., 111, Nagdevi St., Bombay 400003.
Shalimar Engg. Co., 32, Shalimar Indl. Estate, Bombay 400019.
Sharps Engg. Pvt. Ltd., Anupam Indl. Estate No. 2, LBS Mrg., Mulund, Bombay 400080.
Shesh Engg. Pvt. Ltd., 10, Sadguruchhaya, Ram Baug Lane 2, Kalyan 421301.
Shotblasting & Metal Spraying Pvt. Ltd., 509, Arun Chambers, Tardeo Rd., Bombay 400034.
Standard Materials Agencies, 45/46, Podar Chambers, S. A. Brelvi Rd., Bombay 400023.
Standard Plates & Vessels Pvt. Ltd., Plot 9, MIDC, Shiroli, Kolhapur 416122.
Steel-Smith, 8, Sethi Ind. Estate, Suren Rd., Andheri (East), Bombay 400093.
Supreme Hoist & Crane Mfg. Co., 26, Shivkrupa Ind. Estate, LBS Mrg., Vikhroli, Bombay 400083.
Tak Machinery Ltd., Janmabhoomi Bhavan, Ghoga St., Bombay 400001.
Tas Engg. Co. Pvt. Ltd., 333, A. Rehman St., Bombay 400003.
Todi Inds. Pvt. Ltd., Todi Estate, Lower Parel, Bombay 400013.
Universal Hoist-O-Fabrik, 708/709, Raheja Chambers, 213, N. Point, Bombay 400021.
V. S. Lifting Tackles, 11, Harichand Textile Mill Compd., Vikhroli, Bombay 400079.
Vidyut Engg. & Tech. Pvt. Ltd., A-12, Nand Jyot Indl. Estate, Andheri Kurla Rd., Bombay 400072.
W. H. Brady & Co. Ltd., 12/14, Veer Nariman Rd., Bombay 400001.

Western Mechanical Ind. Pvt. Ltd., Industry Manor, Opp. Bengal Chemicals, Bombay 400025

Westerwork Engrs. Pvt. Ltd., 15, Bhandup Village Rd., Bombay 400078.

WMI Cranes Ltd., Bhandup Village Rd., Bhandup, Bombay 400078.

Punjab

Zordor Inds., Hoshiarpur Rd., Jullundur 144001

Tamil Nadu

Adyar Industries, Kalashetra Rd., Off Lattice Bridge Rd., Madras 600041

Bansons Engg. Co., 61A, Seetharama Rd., Alwarpet, Madras 600018.

Chitram & Co. Pvt. Ltd., Main Rd., Royapuram, Madras 600013.

Marshall, Sons & Co. India Ltd., 8, Haddows Rd., Madras 600006.

South Coast (Hardware) Pvt. Ltd., 2/153, Broadway, Madras 600001

Southern Structurals Ltd., 29-A, Chamier's Rd., Madras 600028.

VNR Mfg. Industries, 92-A, Indl. Estate, Madras 600058.

Uttar Pradesh

Pulling and Lifting Machines Pvt. Ltd., B-10, Ind. Area, No. 3, Meerut Rd., Ghaziabad 201001.

Saran Engg. Co. Ltd., Sutherland House, Kanpur 208001.

West Bengal

A. Stock & Co. Ltd., 8, Goragacha Rd., Calcutta 700007.

Asian Marketing Co. Ltd., 38, N. Subhas Rd., Calcutta 700001.

Braithwaite & Co. (I) Ltd., 5, Hide Rd., Calcutta 700043.

Britannia Engg. Co. Ltd., 3, N. Subhas Rd., Calcutta 700001.

Burn Standard Co. Ltd., 10-C, Hungerford St., Calcutta 700017.

Coles Cranes of India Ltd., 517, Barrackpore Rd., Kamarhatti 700058, 24 Parganas Dist.

Construction Machinery Corpn., 32, G. Chandra Ave., Calcutta 700001.

Escal India Pvt. Ltd., P-34, C.I.T. Rd., Calcutta 700014.

Garden Reach Shipbuilders & Engrs. Ltd., 43/46, Garden Reach Rd., Calcutta 700024.

Hikks Engg. Inds., 10-A, Chandni Chowk St., Calcutta 700072.

Hindustan Motors Ltd., Uttarpara 712258. Hooghly Dist.

Indian Crane Co. Ltd., 517, B. T. Rd., Calcutta 700058.

J. K. Steel & Ind. Ltd., 7, Council House St., Calcutta 700001.

Jessop & Co. Ltd., 63, N. Subhas Rd., Calcutta 700001.

Krane & Winches, 22, Canning St., Calcutta 700001.

Kumardhubi Engg. Works, Chartered Bank Bldg., Calcutta 700001.

Lynx Machinery Ltd., 104, Ultadanga Main Rd., Calcutta 700001.

Modern India Construction Co. Ltd., 8, India Exchange Place, Calcutta 700001.

Mother India Lifting House, 40/4, Strand Rd., Calcutta 700001.

New Marine Mart, 4, Raja Woodmunt St., Calcutta 700001

Roberts Mclean & Co. Ltd., 27-B, Camac St., Calcutta 700016.

Usha Telehoist Ltd., 14, Princep St., Calcutta 700013.

Vinar Ltd., 2-A, Shakespeare Sarani, Calcutta 700071.

TRAILERS & TROLLIES

Andhra Pradesh

Hyderabad Allwyn Metal Works Ltd., Sanatnagar, Hyderabad 500018.

Delhi

Delhi Engg. Works Pvt. Ltd., G. T. Rd., Azadpur, Delhi 110033.

Ghaziabad Engg. Co. Pvt. Ltd., 42, Janpath, New Delhi 110002

Indudyog Co. Pvt. Ltd., 40, Okhla Ind. Estate, New Delhi 110020

New India Motors Pvt. Ltd., Scindia House, New Delhi 110001

Gujarat

Testeels Ltd., Ashram Rd., Ahmedabad 380014.

Karnataka

CMC Works, 19/1, Platform Rd., Bangalore 560020.

Govt. Central Indl. Workshop, Mysore Rd., Bangalore 560026.

Maharashtra

Basic Inds., 12/257, S. Bhagat Singh Rd., Bombay 400001.

BUC Mechanical Equipments Pvt. Ltd., 119, ABC Govt. Indl. Estate, Kandivli West, Bombay 400067

Esoofali Esmailji Karachiwala & Co., 43/45, Bhandari St., Mandvi, Bombay 400003

Ferro Process & Allied Engg., B-12, Giriraj Indl. Estate, Mahakali Rd., Andheri East, Bombay 400093.

Fibro Industrial Trading Co., Kurla Andheri Rd., Saki Naka, Bombay 400072.

K. T. Steel Inds. Pvt. Ltd., Broach St., Dana Bunder, Bombay 400009.

Kanara Engg. Co. Pvt. Ltd., Mascarenhas Rd., Bombay 400010.

Mahindra & Mahindra Ltd., Gateway Bldg., Apollo Bunder, Bombay 400039.

Marian Engg. Co., 710, Horniman Circle, Bombay 400023.

Mukul Industrial Corpn., 103-B, Tejpaul's Indl. Estate, Kurla Andheri Rd., Saki Naka, Bombay 400072.

Nagori & Sons, 41, Hamam St., Bombay 400023.

Power Gear Engg. Co., Jeevan Sahakar, Sir P. M. Rd., Bombay 400001.

Raja Steel Inds., 8, Kaka Halwai Estate, Pune 411009.

Ruby Industries, 75, Dr. A. Basant Rd., Bombay 400018.

Special Equipment Co., Chandraprabhu Indl. Estate, 20, K. V. Bhai Bal Mukund Mrg., Bombay 400012.

Punjab

Aminchand Bholanath, Tanda Rd., Jullundur 144001.

Tamil Nadu

Addison & Co. Ltd., 158, Mount Rd., Madras 600002.

Aruna Structurals, 213, St. Mary's Rd., Madras 600028.

Pierce Leslie India Ltd., C/o V A C M Pvt. Ltd., Plot 3-B (N.P.), Indl. Estate, Ambattur, Madras 600058.

Simpson & Co. Ltd., 202, Mount Rd., Madras 600002.

Southern Engg. Works, 83, Lattice Bridge Rd., Madras 600041.

Sreevatsa Engg. & Trading Co., 92-A, Indl. Estate, Madras 600058.

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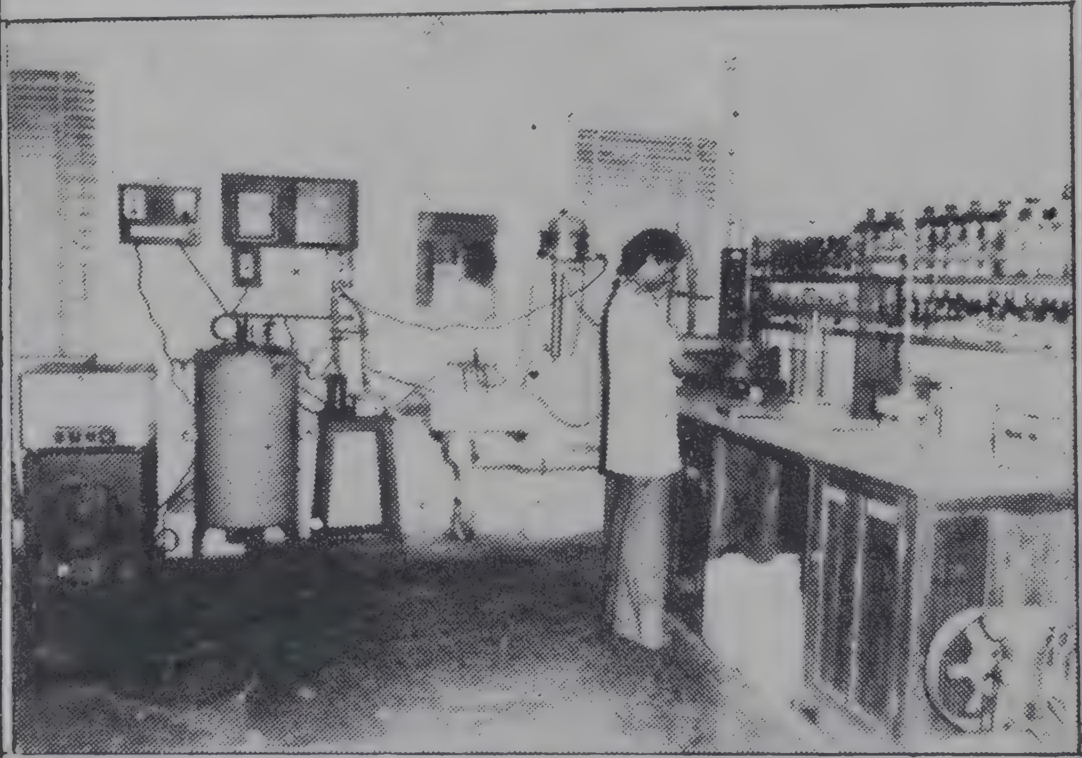

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Bharatiya Metal Smelting & Refining Corpn., 189, Sydenhams Rd., Apparao Garden, Madras 600112.
Indian Metal & Metallurgical Corpn., 498, Mint St., Madras 600003.
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Saru Smelting Pvt. Ltd., Sardhana Rd., Near Cantt. Rly. Stn., Meerut 250001.

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Standard Metal Co., 101, N. Subhas Rd., Calcutta 700001.
Waldies Ltd., A-1, Gillander House, N. Subhas Rd., Calcutta 700001.

METALS—PERFORATED & METAL SHEETS

Globe Indl. Corpn., 109, N. Subhas Rd., Calcutta 700001.
Karfa & Co., 115, N. Subhas Rd., Calcutta 700001.
Harischandra & Co., 233, A. Rehman St., Bombay 400003.
Jameson & Magrudar & Co. Pvt. Ltd., 33/1, Munshi Sadruddin Lane, Calcutta 700007.
Lokesh Iron Inds., Belanganj, Agra 282004.
Metal Perforation Pvt. Ltd., 158/160, N. Dhuru St., Bombay 400003.
Metal Perforators, 43, Abdul Rehman St., Bombay 400003.
Metal Perforators Pvt. Ltd., Anees Chambers, Carnac Rd., Bombay 400001.
Metalcom Inds., 68, Mahant Rd., V. Parle (East), Bombay 400057.
N. J. Metal Screens Mfrs. Pvt. Ltd., 134, N. Master Rd., Bombay 400001.
Navin Inds., 180, Linghi Chetty St., Madras 600001.
P. V. Kotwala & Co., 92, Kumbharwada, 6th Lane, Bombay 400004.
Siri Ram & Co., 97, Narayan Dhuru St., Bombay 400003.
Zenith Iron Works, 46, Abdul Rehman St., Bombay 400003.

METERS & MEASURING INSTRUMENTS—ELECTRICAL

Andhra Pradesh

Andhra Pradesh Electrical Equipment Corpn., Basant Rd., Sanatnagar, Hyderabad 500018.
Instruments Technique Laboratory, B-2, Co-op. Ind. Estate, Balanagar, Hyderabad 500037.
Vasavi Electronics, 162, Vasavi Nagar, Secunderabad 500015.

Delhi

Das Hitachi Pvt. Ltd., 21-A, Janpath (Windsor Place), New Delhi 110002.
Electrical Instruments Co., 20, Friends Colony, Grand Trunk Rd., Shahdara, Delhi 110032.
Electrocine (Sales) Corpn., Electl. Mkt., Chandni Chowk, Delhi 110006.
Havells Inds., 1826, Bhagirath Palace, Delhi 110006.
Meters & Instruments Pvt. Ltd., 4/90, Connaught Circus, New Delhi 110001.
Precision Instrument Mfg. Co., 1254, Kashmere Gate, Delhi 110006.

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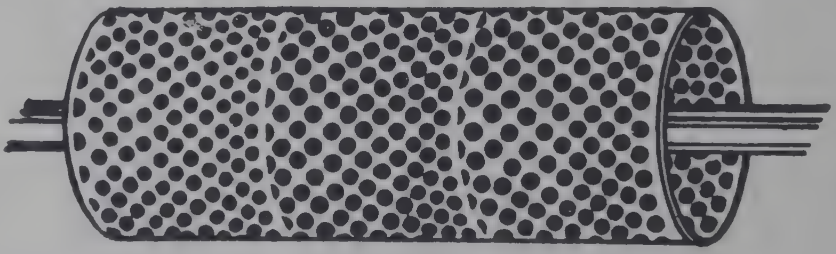

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GHOLWAD (Dist. Thane),
Pin: 401702. Phones: 90/58

3. Metal Perforators & Fabricators, G.I.D.C. J 294/6,
Umbergaon, Dist. Valsad,
Pin: 396171. Phone: 629.

Gujarat

Baroda Electric Meters Ltd., Vallabh Vidyanagar 388120.

Karnataka

British Physical Lab. India Pvt. Ltd., 28, K. Hanumanthiah Rd., Bangalore 560027.
Gloheat Instruments Corpn., 418, 12th Cross, Upper Palace Orchards, Sadashivnagar, Bangalore 560006.
International Instruments Pvt. Ltd., 140, Hosur Rd., Bangalore 560034.
SCR Tools Pvt. Ltd., 68-A, H. Siddiah Rd., Bangalore 560002.

Maharashtra

Apex Enterprises, 79, Govt. Ind. Estate, Kandivli West, Bombay 400067.
Bharat Electronics & Electricals, 407, Commerce House, N. Master Rd., Bombay 400023.
Dhoot Instruments Pvt. Ltd., 504, Raheja Centre, 214, N. Point, Bombay 400021.
Electro-Equipments Corpn. Ltd., 303-304, L. B. Shastri Marg, Mulund, Bombay 400080.
Electroscope Systems, 301, Navketan, Central Ave., Chembur, Bombay 400071.
Emjay & Co., 59, V. B. Gandhi Rd., Bombay 400001.
Enlec Enterprises, Seksaria Chambers, 139, N. Master Rd., Bombay 400001.
Frank Sadhachand & Co., Sadguru, Nehru Rd., Santa Cruz (E), Bombay 400055.
Geekays India, Jalaram Nagar, Bombay 400077.
Greens (India) Corpn., 89, Bank of Baroda Bldg., Palton Rd., Bombay 400001.
Gyro Laboratories Pvt. Ltd., 8, Gazdar St., Thakurdwar, Bombay 400002.
Hindustan Instruments, 7/9, Bell Lane, Bombay 400001.
Industrial Meters Pvt. Ltd., "Advent", 12-A, Gen. J. Bhosle Mrg., Bombay 400021.
Intimate Electronics, 70/10, Mohamedi Manzil, Mohamedali Rd., Bombay 400003.
Kaycee Ind. Ltd., 32, Nicol Rd., B. Estate, Bombay 400038.
Meco Instruments Pvt. Ltd., 310, Bharat Ind. Estate, Tokersi Jivraj Rd., Sewri, Bombay 400015.
Mersuj Dialometrics, B-53, Coziham, Pali Hill, Bandra, Bombay 400050.
Micromac Instruments, 39/5, Khamosh Shah Durga, Near Ghas Bazar, Kalyan 421301. (Thane Dist.).
Modern Equipment Development Co. Pvt. Ltd., Ghosalkar Compd., Shivaji Udyog Nagar, Dombivli East 421201. Thane Dist.
Motwane Mfg. Co. Pvt. Ltd., 127, M. Gandhi Rd., Bombay 400023.
Mysore Electrical Measuring Instruments, Unit No. 202-C, Ind. Estate, Ghatkopar, Bombay 400086.
National Supply & Distributing Agency, 11, Picket Cross Rd., Bombay 400002.
Nippen Electrical Inst. Co., 12-A, Marol Maroshi Rd., Andheri (E), Bombay 400059.
Pla Electro Appliances, Thakor Estate, Kurla-Kirol Rd., Vidyavihar West, Bombay 400086.
PMT Metrology & Electronics Pvt. Ltd., Bell Bldg., Sir P. M. Rd., Bombay 400001.
Prinz Engrs. (India), C-3, 3rd Flr., Commerce House, N. Master Rd., Bombay 400023.
Roman Inds., A1 Inds. Annexe, J. B. Nagar, M. Vasanji Rd., Andheri East, Bombay 400050.
S. S. Inds., D-22, Udyog Sadan, M.I.D.C. , Chakala, Bombay 400093.
Shanti Electric Instruments, A-54, Marol Indl. Area, M.I.D.C., Andheri East, Bombay 400093.
Testing Machines Corpn., 266, Dr. A. B. Rd., Worli, Bombay 400025.
Udeyraj & Sons, 158, K. M. Sharma Marg, Lohar Chawl, Bombay 400002.

Punjab

Accumeasures Punjab Ltd., B-75, Phase VIII, S.A.S. Nagar, Mohali.
Meters & Instruments Pvt. Ltd., 143, Indl. Area, Chandigarh 160002.

Tamil Nadu

Electronics & Business Machines Pvt. Ltd., 11-7, Instronics Campus, Madras 600041.
India Meters Ltd., 14, Ambattur Indl. Estate, Madras 600058.
Premier Instruments Coimbatore Ltd., Perianaickenpalayam, Coimbatore 641020.
Premjee Electronic Inds., 14. Errabalu Chetty St., Madras 600001.
Simco Meters Ltd., 109, N. H. Rd., Madras 600034.

West Bengal

A. N. Instruments Pvt. Ltd., 1B, Ashutosh Mukherjee Rd., Calcutta 700020.
Oasis Instruments Co. Ltd., 23, Canning St., Calcutta 700001.
Peico Electronics & Electricals Ltd., 7, Justice C. M. Rd., Calcutta 700020.
Sett and De, 16, G. Chandra Ave., Calcutta 700013.
Universal Electrics Ltd., 9/1, R. N. Mukherjee Rd., Calcutta 700001.

MICA PRODUCTS

Bajrang Mica Co. Pvt. Ltd., 120, Chittaranjan Ave., Calcutta 700073.
Ganesh Electricals, R. C. Barrack No. 26/302, Chembur Colony, Bombay 400074.
Hindusthan Mica Mart, Muslim Bazar, Giridih 815301. (Bihar).
Inderchand Rajgarhia & Sons Pvt. Ltd., 5, Rungerford St., Calcutta 700017.
Indian Mica Produce Co., 40, Strand Rd., Calcutta 700001.
Mica Mfg. Co. Pvt. Ltd., 3E, Camac St., Calcutta 700016.
Pravin Dhudalal & Co., 280, Lokmanya Tilak Mrg., Opp. G. T. Hospital, Bombay 400002.

MILLING MACHINES & CUTTERS

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Addison & Co. Ltd., 158, Mount Rd., Madras 600002.
Armecess Gauze & Tool Co. Pvt. Ltd., A-3, Ambattur Indl. Estate, Madras 600058.
Arya Manufg. Co., 69, Shradhanand Marg, Delhi 110006.
B. S. Machine Tools Corpn., 435, Jessore Rd., Calcutta 700055.
Barmi Engg. Works, Grand Trunk Rd., Qabool Nagar, Shahdara, Delhi 110032.
Batliboi & Co. Ltd., Apeejay House, V. B. Gandhi Mrg., Bombay 400023.
Bharat Fritz Werner Pvt. Ltd., Peenya. Bangalore 560022.
Bharat Tool Mfg. Co. Pvt. Ltd., Fergusson Rd., Lower Parel, Bombay 400013.
CTR Manufg. Ind. Ltd., Nagar Rd., Pune 411014.
Calicut Engg. Works Pvt. Ltd., 26-A, Camac St., Calcutta 700016.
Capital Tool Inds., 7-A, Indl. Area, Patiala 147001.
Chopra Machines Corpn., 27/2C, Strand Rd., Calcutta 700001.
Cimotec, 44-B, Seshadripuram Main Rd., Bangalore 560020.
Dies & Tools Ltd., 11, R. N. Mukherjee Rd., Calcutta 700001.
Excell-O India Ltd., 78-B, Dr. A. Besant Rd., Bombay 400018.
Garlick Engineering, Machine Tools Dn., Empire House, 414, S. Bapat Mrg., Bombay 400013.
Guaranteed Engg. Works (Regd.), G. T. Rd., Millerganj, Ludhiana 141003. (Punjab).
H.M.T. Ltd., 36, Cunningham Rd., Bangalore 560052.
Hindustan Export & Import Corpn. Pvt. Ltd., Anand Bhavan, Dr. D. N. Rd., Bombay 400001.
International Combustion India Pvt. Ltd., 101, Part St., Calcutta 700016.
Kirloskar Bros. Ltd., Udyog Bhavan, Tilak Rd., Pune 411002.
Machinery & Spares, 30, Apollo St., Bombay 400023.
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Maneklal & Sons (Calcutta), 23, G. C. Avenue, Calcutta 700013.
S. K. B. India, 5 & 6, Fancy Lane. Calcutta 700001.
Sarbjit Inds., Ram Tirath Rd., Amritsar 143001.
Sher-E-Punjab Engg. Works (Regd.), Kashmir Rd., Simble, Batala 143505. (Punjab).
Sideco Tools, Umayanalloor, Quilon 691571. (Kerala State).
Steel & Allied Products. Ltd., 2/1, Hossain Shah Rd., Calcutta 700023.
Sunrise Inds., Mavdi Plot, Rajkot 360004. (Gujarat).
Uma Tools Pvt. Ltd., S-17, Parvati Ind. Estate, Pune 411009.
United Engg. Eastern Corpn., 22, B.R.B. Bose Rd., Calcutta 700001.

MINERALS

Andhra Pradesh

Andhra Pradesh Mining Corpn. Ltd., 6-3-672, Panja Gutta, Hyderabad 500004.
National Mineral Devpt. Corpn. Ltd., Pioneer House, 6-3-653, Somajiguda, Hyderabad 500004.
Seshasahyee Mining Co., Betamcherla 518599, Kurnool Dist.

Bihar

Jain China Clay Mines Pvt. Ltd., Chaibasa 833201.
Singhbhum Mineral Co., P.B. No. 24, Chaibasa 833201.
Tata Iron & Steel Co. Ltd., Jamshedpur 831001.

Delhi

Rajrishi Mining Corpn., 4-3, Vandhna, 11, Tolstoy Marg, New Delhi 110001.
Sahu Minerals & Properties Ltd., 9th Flr., Dakshineshwar Bldg., 10, Hailey Rd., New Delhi 110001.

Goa

Chowgule & Co. Pvt. Ltd., Chowgule House, Mormugao Harbour 403803.
Damodar Mangalji & Co. Pvt. Ltd., Afonso de Albuquerque Rd., Panaji 403001.
Emco Goa Pvt. Ltd., P.O. 54, Margao 403601.
Sesa Goa Pvt. Ltd., Altinho, P.B. 125, Panaji 403001.
Shantilal Khushaldas & Bros., P.B. No. 35, Mormugao 403803.
Timblo Pvt. Ltd., Margao 403601.
V. M. Salgaocar & Bros. Pvt. Ltd., Salgaocar Bldg., P. B. No. 14, Vasco-da-Gama 403802
V. S. Dempo & Co. Pvt. Ltd., Campal, Panaji 403001.

Gujarat

Saurashtra Minerals Pvt. Ltd., East Kedia Plots, Porbandar 360575.
Shivrajpur Syndicate Ltd., Shivrajpur 389370, Panchmahals Dist.

Karnataka

Eastern Mining Co. (Mysore) Pvt. Ltd., Londa-Supa Rd., Londa 591301. Belgaum Dist.
Everest Mineral Industries, Near Indl. Estate, Khanapur Rd., Belgaum 590008.
Gadigi Mineral Mining Co., Gadigi Palace, Bellary 583101.
Mineral Sales Pvt. Ltd., Nehru Co-operative Colony, Hospet 583201. Bellary Dist.
P. Balasubha Setty & Sons, P.B. 3, Hospet 583201. Bellary Dist.
P. Venkanna Shetty & Bros., P.B. No. 33, Hospet 583201.
Sandur Manganese & Iron Ores Ltd., Lohadri Bhuwan, Yeshwantnagar 583124, Via Sandur, Bellary Dist.
West-End Minerals & Exports Pvt. Ltd., Madhavpur, Hubli 580020.

Madhya Pradesh

National Coal Devpt. Corpn. Ltd., P.O. Korba 495677. Bilaspur Dist.

Maharashtra

Ambica Minechem Inds., 129/131, Kazi Syed St., Bombay 400003.
Best Minerals Ltd., Saroj Bhavan, Ramdaspeth, Nagpur 440001.
Deccan Minerals Pvt. Ltd., Atlanta, 2nd Flr., Nariman Pt., Bombay 400021.
Goenka Minerals Pvt. Ltd., Mineral House, Civil Lines. Nagpur 440001.
Gujarat Clay Mills, 246, Reay Rd., Bombay 400010.
Indian Clay & Mineral Co., Tarabaug, Love Lane, Mazgaon, Bombay 400010.
J. P. Mineral Corpn., 6, Nirmal Kunj, M. G. Rd., Ghatkopar East, Bombay 400077.
Kumaraswamy Mining Co., 17/4, 'Sindhu', 87, Marine Drive, Bombay 400002.
Mag-Hard Minerals, Darya Bldg., 3rd Flr., 375, D. N. Rd., Bombay 400023.
Maharashtra Inds., 175, CST Rd., Kalina, Santacruz (East). Bombay 400098.
Maharashtra Minerals Corpn. Ltd., Industrial Assurance Bldg., 5th Flr., Churchgate, Bombay 400020.
Mineral Mining Co. Pvt. Ltd., 111, Indl. Area, Bombay 400022.
Natwarlal Shamaldas & Co., 94, N. Master Rd., Bombay 400001.
P. Manganese Ore Co. Ltd., P.O. Box No. 8, Nagpur 440001.
Polymer Mineral Inds., Next to Metro Playing Card Co., Behind Kurla Bus Depot, Bombay 400098.
Shree Satya & Co., 2, Pittaiwala Bldg., Dr. Batliwala Rd., Parel, Bombay 400012.

Rajasthan

Allied Minerals Pvt. Ltd., RIICO Flat NHW-4, Vishwakarma Indl. Area, Jaipur 302016.
Associated Soapstone Distributing Co. Pvt. Ltd., Johri Bazar, Jaipur 302003.
Bharat Marble Inds., Post Box 34, Makrana 341505.
Bharat Mineral Supply Corpn., Lodha Dharamshala, Prithviraj Mrg., Ajmer 305001.
Udaipur Mineral Devpt. Syndicate Pvt. Ltd., Bhilwara 311001.
Western Minerals Pvt. Ltd., 1031, Sanghji Ka Rasta, S. M. S. Highway, Jaipur 302003.

Tamil Nadu

Gimplex Minerals Pvt. Ltd., 19/20, Linghi Chetty St., Madras 600001.
Tamil Nadu Minerals Ltd., Twad House, 31, Kamarajar Salai, Chepauk, Madras 600005.

West Bengal

Ajaydeep Mineral Ind. Pvt. Ltd., 5-A, S. Chatterjee St., Calcutta 700006.
Anudyog, 2, G. C. Avenue, Calcutta 700013.
Aryan Mining & Trading Corpn. Pvt. Ltd., 61, Strand Rd., Calcutta 700006.
Bolani Ores Ltd., Chartered Bank Bldgs., P.B. 46, Calcutta 700001.
Ganges Mfg. Co. Ltd., 7, Council House St., Calcutta 700001.
Indian Mineral Ind. Ltd., 22/1, Dum Dum Rd., Calcutta 700002.
Karamchand Thapar & Bros. Pvt. Ltd. (Mineral Dept.), Thapar House, 25. Brabourne Rd., Calcutta 700001.
Lal Traders & Agencies Pvt. Ltd., 7, Waterloo St., Calcutta 700001.
M. S. Deb, 6–1, Lindsay St., Calcutta 700016.
Misrilall Mines Pvt. Ltd., Mineral House, 27-A, Camac St., Calcutta 700016.
Naveen Mineral Ind., 308, Gopal Lal Tagore Rd., Calcutta 700036.
Orissa Manganese & Minerals Pvt. Ltd., 207-A, R. B. Ave., P. B. 2262, Calcutta 700019.
Orissa Mineral Dev. Co. Ltd., P.B. 46, Chartered Bank Bldgs., Calcutta 700001.
Pacific Minerals Pvt. Ltd., 11, Sudder St., Calcutta 700016.
R. McDill & Co. Pvt. Ltd., Mineral House, 27-A, Camac St., Calcutta 700016.
Rungta Sons Pvt. Ltd., P-16, Kalakar St., Calcutta 700007.
S. K. Sarawagi & Co. Pvt. Ltd., 2, Digambar Jain Temple Rd. Calcutta 700007.
S. Lal & Co. Ltd., 9, Chittaranjan Ave., Calcutta 700013.
Serajuddin & Co., P-16, Bentinck St., Calcutta 700016.

Shaw Wallace & Co. Ltd., 4, Bankshall St., P.B. No. 70, Calcutta 700001.
Shree Narayan Co., 174, Mahatma Gandhi Rd., Calcutta 700007.
Swaika Group of Industries, 18-B, Brabourne Rd., Calcutta 700001.

MINING MACHINERY & EQUIPMENT

Bharat Westfalia Ltd., 16, Hare St., Calcutta 700001.
Eimco Elecon (India) Pvt. Ltd., Post Box 21, Vithal Udyognagar, Vallabh Vidyanagar 388121. (Gujarat).
Modern Metal Moulders (Assam) Ltd., Indl. Estate, Gauhati 781021. (Assam).
Premier Machines Pvt. Ltd., 59, Najafgarh Rd., New Delhi 110015.
Revathi-CP Equipment Ltd., Pollachi Rd., Malumachampatti, Combatore 641021.
Sandvik Asia Ltd., Air India Bldg., N. Point, Bombay 400021.
Southern Structurals Ltd., Pattabiram, Madras 600062.
Vulcan Laval Ltd., Mustafa Bldg., 7-A, Sir P. Mehta Rd., Bombay 400001.

MOTORS—ELECTRIC

Andhra Pradesh

Neeta Enterprises Pvt. Ltd., A-3, Co-op. Ind. Estate, Balangar, Hyderabad 500037.
Shriram Refrigeration Ind. Ltd., P.O. Balanagar Township, Hyderabad 500037.
South India Motor Manufg. Co. Pvt. Ltd., Nacharam Ind. Estate, Hyderabad 500039.

Delhi

Bharat Heavy Electricals Ltd., 18/20, K. Gandhi Mrg., New Delhi 110001.
Gautam Electric Motors Pvt. Ltd., 42, Okhla Ind. Estate, New Delhi 110020.
Jay Engg. Works Ltd., 23, K. Gandhi Marg, New Delhi 110001.
Nand Kishore & Co., 42, Shradanand Mrg., Delhi 110006.

Gujarat

Alpha Dynamic Products Pvt. Ltd., Plot Nos. 5 & 6, Rd. No. 14, Udyognagar, Udhna 394210.
Bomin Pvt. Ltd., Anand Bhuvan, Relief Rd., Ahmedabad 380001.
Elecen Machines Pvt. Ltd., 12, G.I.D.C. Ind. Estate, Makarpura Rd., Vadodara 390009.
Electrical Engg. Enterprise, Plot No. 4/5, G.I.D.C. Est., Naroda 382330, Ahmedabad Dist.
Industrial Machinery Mfrs. Pvt. Ltd., Near Ahmedabad New Cotton Mills, Off Amrai Wadi Rd., Ahmedabad 380008.
J. M. Corpn., A/16-17, Jagannathji Indl. Estate, Ahmedabad 380008.
Jyoti Electric Motors Ltd., Anand 388001.
Jyoti Electric Motors Ltd., Mogar 388340.
Jyoti Ltd., Ind. Area, Vadodara 390003.
Nemco Motors, Dhebarbhai Rd., Rajkot 360002.
Patel Industries, Urvashi Ind. Estate, Near Patel Wadi No. 3, Surat 395003.
Tiger Electric Tool Co., 21, Bhagat Colony, Makarpura Rd., Vadodara 390009.
Universal Electrical Corpn., Near Moti Talkies, Surat 395001.
Venus Entrepreneurs, 6/E, New India Estate, Udhna 394210.
Vidyut Engg. Works, Nari Rd., Bhavnagar 364001.
Wigman Electrical & Engg. Ind. Pvt. Ltd., 2/21, Ind. Estate, Vadodara 390003.

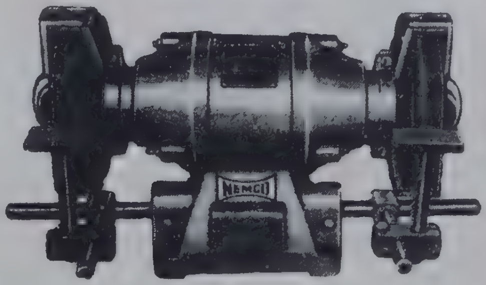
Haryana

American Universal Electric (I) Ltd., Model Town, Faridabad 121001.
Hindustan Brown Boveri Ltd., Ind. Area, Faridabad 121001.
Oswal Electricals, 49, Ind. Area, Faridabad 121001.

Karnataka

Allied Electricals, B-05, HMT Indl. Estate, Jalahalli, Bangalore 560031.

NEMCO



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NGEF Ltd., Byappanhali, Bangalore 560038.

Kerala

Kerala Electrical & Allied Engg. Co. Ltd., P.O. Mamala, Cochin 682305.

Maharashtra

Apee Electricals, 49, Kakad Indl. Estate, 111, Lady Jamshedji Rd., Mahim, Bombay 400016.
Arun Engg. Ind. Pvt. Ltd., Shantinagar Co-op. Ind. Estate, Vakola, Santa Cruz (East), Bombay 400035.
Bhagwati Enterprises, Shop No. 1, Jetunbi Chawl, M. G. Rd., Borivli East, Bombay 400066.
Bharat Bijlee Ltd., Electric Mansion, Nr. Century Bazar, Bombay 400025.
Bharat Electric & Engg. Corpn., 21, Dalal St., Bombay 400023.
Crompton Greaves Ltd., Kanjur, Bombay 400078.
Electrical Mfg. Co., 120, Vasan Udyog Bhavan, Opp. Phoenix Mills, Lower Parel, Bombay 400013.
Elmot Engg. Co. Pvt. Ltd., 103/A, Kalpita Enclave, Sahar Rd., Andheri (E), Bombay 400069
Emco Electra Pvt. Ltd., 94, Medows St., Bombay 400023.
Engineering Products Ltd., Jogeshwari Estate, 8, Vivekanand Rd., Bombay 400060.
Hindustan Motor Mfg. Co., 108-A & 109-B, Tejpaul's Ind. Estate, Saki Naka, Bombay 400072.
Lawkim Ltd., 16, Horniman Circle, Bombay 400023.
M. J. Electricals, Unit No. K-38 to 41 & 62, Sonal Ind. Estate, Ramchandra Lane Extn., Malad West, Bombay 400064.
Mark Elektriks, Plot 15, Gultekdi, Indl. Estate, Pune 411009.

Matchwell Electricals (India) Ltd., Off Nagar Rd., Pune 411014.
Mather Greaves Ltd., Chinchwad, Pune 411019.
Mody Industries (FC) Pvt. Ltd., 62, Bhavani Shankar Rd., Dadar (West), Bombay 400028.
Narhari Engg. Works, Dahanukar Bldg., 480, Kalbadevi Rd., Bombay 400002.
National Electrical Inds. Ltd., Indl. Estate, Lalbaugh, Bombay 400012.
Navayug Electric Corpn., J. B. Nagar, Andheri-Kurla Rd., Bombay 400059.
New India Electric Corpn., J. B. Nagar, Andheri-Kurla Rd., Bombay 400059
Nielcon Pvt. Ltd., J. B. Nagar, Mathuradas Vasanji Rd., Bombay 400059.
Precise Engg. Works, Kotkar Ind. Estate, Bombay 400063.
Radalt Inds., A-14, Nandiyot Indl. Estate, Andheri-Kurla Rd., Safed Pool, Bombay 400072.
Ramson & Sons, 44, Jamnadas Ind. Estate, Dr. R. Prasad Rd., Mulund (W), Bombay 400080.
Saga Windel Engineers Pvt. Ltd., Sheel Chambers, 10, Cawasji Patel St., Bombay 400001.
Sangam Electrical & Mechanical Ind. Pvt. Ltd., Plot Nos. 13-14, Ind. Estate, Sangli 416416.
Shembekar Industries, Bombay-Pune Rd., Chinchwad, Pune 411018.
Siemens India Ltd., 134-A, Dr. A. Besant Rd., Worli, Bombay 400018.
Spartan Electricals, Mathuradas Mills Compd., N. M. Joshi Mrg., Bombay 400013.

Pondicherry

Sri Narayana Engg. Corpn., C-9, Mettupalayam Ind. Estate, Pondicherry 605001.

Punjab

Beegee Corpn. Pvt. Ltd., 25, Factory Area, Patiala 147002.
Electricals Corporation, BS, 21, Chowk Sodal Ind. Estate, Jullundur 144004.
Golden View Electrical Ind. Pvt. Ltd., BS, 14, Chowk Sodal Ind. Estate, Jullundur 144004.

Tamil Nadu

Basic Engrs. & Traders, 40, Errabalu Chetty St., Madras 600001.
Best & Crompton Engg. Ltd., 13/15, North Beach Rd., Madras 600001.
Coimbatore Premier Corpn. Ltd., Mettupalayam Rd., Coimbatore 641030.
Ellen Inds., Ellaithotam Rd., Peelamedu, Coimbatore 641004.
Festo Elgi Pvt. Ltd., India House, Trichy Rd., Coimbatore 641018.
Mahendra Engg. Works, Puliyakulam, Coimbatore 641018.
Manju Electl. Inds. Pvt. Ltd., 38, Mettupalayam Rd., Coimbatore 641011
Navamani & Co., 4/457, Pappanickenpalayam, Coimbatore 641037.
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Maharashtra

Alimohamed Chotani & Co., Sonawala Bldg., 57, Bombay Samachar Mrg., Bombay 400023.
Bombay Computer Services Pvt. Ltd., 10/20, Kailash Kunj, Wadala, Bombay 400031.
C. J. Inds. (LNL), Hampton Court, N. Parekh Marg, Bombay 400005.
CMS Computers Pvt. Ltd., 201, Arcadia, N. Point, Bombay 400021.
Computility Computer Systems Pvt. Ltd., Atlanta, 17th Flr., 209, N. Point, Bombay 400021.
Computronics India, Data Processing Centre, 1, Mittal Chambers, Nariman Point, Bombay 400021.
Eiko Computers Pvt. Ltd., Devatha Plaza, 3rd Flr., Residency Rd., Bangalore 560025.
Hindriton Computers & Consultants Systems P. Ltd., Eros Bldg., 42, M. Karve Rd., Bombay 400020.
Informatics Services Pvt. Ltd., Apsara Bldg., 6th Floor, Opp. Electric House, S. Bhagatsingh Rd., Colaba, Bombay 400039.
International Computers Indian Manufacture Ltd., Liberty Bldg., Sir V. Thackersey Mrg., Bombay 400020.
Jay Computer Products, 423, Giriraj, Sant Tukaram Rd., Carnac Bunder, Bombay 400009.
Josh Marketing Pvt. Ltd., B-6, Rd. A, St. 3, Indl. Area, Satpur, Nasik 422007.
Magna Systems, Haji Adam Mansion, Homji St., Bombay 400001.
Patni Computer Systems Pvt. Ltd., 303/304, Regent Chambers, Nariman Point, Bombay 400021.
Rolta Computers & Inds. Pvt. Ltd., Maker Tower F, 17th Flr., Cuffe Parade, Bombay 400005.
Tata Burroughs Ltd., Manish Commercial Centre, 261-A, Dr. A. B. Rd., Bombay 400025.
Tej Computer Systems, 432, Kaliandas Udyog Bhavan, Worli, Bombay 400025.
Zenith Computers Ltd., 106, Mittal Chambers, N. Point, Bombay 400021.

Tamil Nadu

Case Computer Systems Pvt. Ltd., 5, Kondi Chetty St., Madras 600001.
K. C. P. Ltd., 38, Mount Rd., Madras 600006.
Tamil Nadu Electronic Components Pvt. Ltd., 5, M. Kumaramangalam St., Madras 600034.
Transtech Distribution, S-8, Sastrinagar, Madras 600020.
Yashonand Enterprises, 12, Temple Rd., Madavakkam, Tank Colony, Kilpauk, Madras 600010.

Uttar Pradesh

Uptron, 10, Ashok Mrg., Lucknow 226001.

West Bengal

Digital Instruments and Systems India, 48A, M. Nehru Rd., Calcutta 700029.
MMC Digital Systems, 3, Woodburn Rd., Calcutta 700020.

COPIERS

Advani-Oerlikon Ltd., Shivsagar Estate, Dr. A. Besant Rd., Bombay 400018.
BPL-India, Central Marketing Organisation, BPL Centre, 32, Church St., Bangalore 560001.
Chowgule Inds. Ltd., Chowgule House, Mormugao Harbour 403803. (Goa).
Copier Sales Corpn., 75, Daryaganj, New Delhi 110002.
Dynamatic Office Systems, Mahindra Spicer Bldg., B. Estate, Bombay 400038.
Ekantia Copiers Pvt. Ltd., 31, Rajpur Rd., Delhi 110054.
Electro Photomax, L-38, Connaught Place, New Delhi 110001.
Forbes, Forbes Campbell & Co. Ltd., Latham Dn., Forbes Bldg., Charanjit Rai Mrg., Bombay 400001.
G. R. Photomax Pvt. Ltd., 1101-3, Hemkunt House, Rajendra Place, New Delhi 110008.
Graphics India, Nariman Bhavan, N. Point, Bombay 400021.
Harish Trent Pvt. Ltd., 19, Parsi Panchayat Rd., Andheri East, Bombay 400069.
Indian Xerographic Systems Pvt. Ltd., Plot No. 9, Thane Belapur Rd., P.O. Turbhe, New Bombay 400613.
Kores (India) Ltd., Business Machines & Systems Dn., Plot 10, Off Dr. E. Moses Rd., Worli, Bombay 400018.
Logic Systems Pvt. Ltd., Post Box 3543, New Delhi 110024.
Meco-Tronics Pvt. Ltd., Raheja Chambers, 213, N. Point, Bombay 400021.
Methodex Systems Pvt. Ltd., 185, Mount Rd., Madras 600006.
Modi Zerox Ltd., Hemkunt Tower, 13th Flr., Nehru Place, New Delhi 110019.
Murphy India Ltd., Office Systems Dn., 4658-A, Ansari Rd., 21, Daryaganj, New Delhi 110002.
National Radio & Electronics Ltd., 39, Montieth Rd., Egmore, Madras 600008.
Office Automation, 300, Perin Nariman St., Bombay 400001.
Photo Copying Services, 227, Lower Circular Rd., Calcutta 700020.

DATA SYSTEM

Biscay Data Products Pvt. Ltd., 27, Mirza Ghalib St., Calcutta 700016.
Datamatics Corpn., Bombay Mutual Bldg., 293, Dr. D. N. Rd., Bombay 400001.
DCM Data Products, 8/E, Rani Jhansi Rd., New Delhi 110055.

DICTATING MACHINES

World Business Machines Pvt. Ltd., 26-A, Khan Mkt., New Delhi 110003.

DRAWING OFFICE EQUIPMENT

Andhra Pradesh

Harvin Scientific Optics Pvt. Ltd., C-7, 8 & 34, Ind. Estate, Sanatnagar, Hyderabad 500018.

Gujarat

B. G. Talati, Paper Garden, Opp. Rly. Stn., Umreth 38220. Kaira Dist.
D. D. Enterprises, Adarsh Apartments, Nawabwada, Raopura, Vadodara 390001.

Maharashtra

Allied Instruments Pvt. Ltd., 30-BD, Govt. Ind. Estate, Kandivli, Bombay 400067.
Bombay Miscellanies Pvt. Ltd., Khan Manzil, 28, Calicut St., Bombay 400001.
Bombay Stationery Mart, 7A, Sir P. M. Rd., Bombay 400001.
Industrial Marketing Services, Jiji House, 1st Floor, Ravelin St., Bombay 400001.
Maharaja Trade Links, D-44, Aaram Society, Vakola, Santacruz East, Bombay 400055.
Raja Bahadur Motilal Poona Mills Ltd., Marketing Divn., 505, Kakad Chambers, 132, Dr. A. Besant Rd., Bombay 400018.

Uttar Pradesh

Drawing Instruments Mfg. Co., Behari Lal Rd., Dehra Dun 248001.

West Bengal

Kartar & Co. (India), 60/1, Chowringhee Rd., Calcutta 700020.
Reprographics Group, Macneill & Magor Ltd., 2, Fairlie Place, Calcutta 700001.
Simco, 2A, Kedar Dutta Lane, Calcutta 700006.

DUPLICATING MACHINES

Delhi

Radio & Communication, B-3/1, Okhla Indl. Area, Phase II, New Delhi 110020.
Roneo Vickers India Ltd., 136, Sunder Nagar, New Delhi 110003.
Shourie Duplicators Pvt. Ltd., Ind. Area, Najafgarh Rd., New Delhi 110015.
Vipon Electronics Co., 10/18, Shaktinagar, Delhi 110007.

Maharashtra

Cidas Inds., 111, Prasad Chambers, Opera House, Bombay 400004.
Kesho Ram & Sons India Pvt. Ltd., 314, Commerce House, N. Master Rd., Bombay 400023.
Kores (India) Ltd., Business Machines & System Dn., Post Box 6558, Bombay 400018.

Tamil Nadu

Indian Duplicator Co. Ltd., 125, Nungambakkam High Rd., Madras 600041.
Methodex Systems Pvt. Ltd., 38/3, Mount Rd., Madras 600002.

Uttar Pradesh

Hivka Duplicators Pvt. Ltd., Aishbagh, Lucknow 226001.

West Bengal

Dass Zimmerman Pvt. Ltd., 10, Taratolla Rd., Calcutta 700053.
Gestetner Duplicators Pvt. Ltd., 18, Rabindra Sarani, Calcutta 700001.
J. K. Business Machines Ltd., 2, Mangoe Lane, Calcutta 700001.
Remington Rand of India Ltd., 3, Council House St., Calcutta 700001.

FILING SYSTEMS

Delhi

A. K. Industries, 70, Rani Jhansi Rd., New Delhi 110008.
Methodex Business Systems Pvt. Ltd., 608, Meghdoot, Nehru Place, New Delhi 110019.
Recordex Business Systems, 8/1, E. Patel Nagar, New Delhi 110008.
Roneo Vickers India Ltd., 136, Sunder Nagar, New Delhi 110003.

Maharashtra

Alkon Plastics Pvt. Ltd., 29 AB, Govt. Indl. Estate, Kandivli, Bombay 400067.
Postalia Interfrank Pvt. Ltd., G.P.O. Box 479, Bombay 400001.
Vanguard Business Systems, 70-C, Gowalia Tank Rd., Bombay 400036.

OFFICE FURNITURE

Andhra Pradesh

Novopan India Ltd., 1-10-60/3, Begumpet, Hyderabad 500016.

Delhi

A. K. Industries, 70, Rani Jhansi Rd., New Delhi 110008.
Ahuja Furnishers Pvt. Ltd., Mandir Mrg., Post Box 368, New Delhi 110001.
Recordex Business Systems, 8/1, E. Patel Nagar, New Delhi 110008.
Roneo Vickers India Ltd., 136, Sunder Nagar, New Delhi 110003.
Union Engg. Co., AA/6, Anand Parbat, St. No. 4, Guru Gobind Singh Mrg., New Delhi 110005.

Goa

Keith Abilities & Electronic Equipments Co., Post Box 292, Panaji 403001.

Gujarat

Ahmedabad Eagle Engg. Enterprises Pvt. Ltd., 410, Near Railway Crossing, Naroda Indl. Estate, Ahmedabad 382330.

Karnataka

British Physical Labs. India Pvt. Ltd., 28, K. Hanumanthiah Rd., Bangalore 560027.
Featherlite Products, 2, Timber Yard Layout, Mysore Rd., Bangalore 560026.
National Furnishing House, P.B. No. 6808, Bangalore 560002.

Maharashtra

Filex System, 172/74, Dr. D. N. Rd., Bombay 400001.
Godrej & Boyce Manufg. Co. Pvt. Ltd., Godrej Bhavan, Home St., Bombay 400023.
Indoors, 50, S. Bhagatsingh Rd., Bombay 400001.
Kala Steel Furniture, Azad Nagar, Opp. Castle Mill, Thane 400602.
Kamal Steel Products, 134, C. & D. Kandivli Indl. Estate, Bombay 400067.
Kumar Furniture Pvt. Ltd., National House, 6/8, Burjorji Bharucha Mrg., Bombay 400023.
Noormohameds, 109, A-111/B, Mohamedali Rd., Bombay 400003.
Omega Agencies, Near Parsi Dairy Farm, Bombay 400002.

Tamil Nadu

Fabs Equipment, 6/596-D, Trichy Rd., Coimbatore 641018.
Volga Furnishers, 533, Mount Rd., Madras 600018.

West Bengal

China Wood Works, 13C, Lower Chitpur Rd., Calcutta 700001.
Commercial Syndicate, 22, Canning St., Calcutta 700001.

OFFICE MACHINES

Delhi

Indian Communications Network Pvt. Ltd., 801, Siddharth, 96, Nehru Place, New Delhi 110019.

Maharashtra

Bradma of India Ltd., Volkart Bldg., 19, J. N. Heredia Mrg., Bombay 400038.
K. L. A. Business Machines, 229, Arun Chambers, Tardeo Rd., Bombay 400034.
Nandi Business Machines, 3, J. K. Indl. Estate, Mahakali Rd., Andheri East, Bombay 400069.
Precision Typewriters Co., Dena Bank Bldg., Horniman Circle, Bombay 400023.
Remington Rand of India Ltd., Mehta Mahal, Mathew Rd., Bombay 400004.
Roneo Vickers India Ltd., 39, A. K. Naik Rd., Bombay 400001.
Vanguard Business Systems, 70-C, Gowalia Tank Rd., Bombay 400036.
World Business Machines, 475, S. V. P. Rd., Marwan Vidyalaya Bldg., Opera House, Bombay 400004.

Tamil Nadu

Business Machine Syndicate, 1–155, Mount Rd., Madras 600002.
Facit Asia Ltd., P.O. Perungudi, Madras 600041.
Instruments and Apparatus Pvt. Ltd., 193, Mount Rd., Madras 600002.
P. N. Ganesan Pvt. Ltd., 7, Judge Jambulinga Mudaliar Rd., Madras 600004.

OFFICE STATIONERY & REQUISITES

Delhi

Bharat Carbon and Ribbon Mfg. Co. Ltd., N-75, Connaught Circus, New Delhi 110001.
Delhi Paper Products Co., E-34, Conn. Place, New Delhi 110001.
India Paper Products, 9–115, Barashabulla, Delhi 110006.
Kathuria Bros., 2097, Vir St., Sadar Bazar, Delhi 110006.
Oxford Ind. India, 84-A, Kamla Nagar, Delhi 110007.
Palson Inds., 165, Okhla Indl. Complex, Phase I, New Delhi 110020.
Ram Nath & Sons, 2426, Chawri Bazar, Delhi 110006.
Two Brothers Pvt. Ltd., 7, Mohan Singh Place, Irwin Rd., New Delhi 110001.

Goa

Cartybon Pvt. Ltd., Chowgule House, Mormugao Harbour 403803.

Gujarat

Airawat Ind., Below Central Bank Bldg., Gandhi Rd., Ahmedabad 380001.
B. G. Talati, Paper Garden, Opp. Rly. Stn., Umreth 388220, Kaira Dist.
Jayshree Stationery Mart, Kagdi Bazar, Below Gandhi Rd., Bridge, Ahmedabad 380001.
Mariners & Co., 25, Ajay Ind. Estate, Nagerwel Hanuman Rd., Rakhial, Ahmedabad 380023.
Paramount Paper Pin Products, 13, Saurashtra Socy., Behind Hirabag, Ambawadi, Ellis Bridge, Ahmedabad 380006.
Puthawala Corpn., 2347, Moti Makeriwad, Relief Rd., Ahmedabad 380001.
Ryman Printers & Stationers, Capital Commercial Centre, Basement B-11–12, Ashram Rd., Ahmedabad 380009.
Sureshchandra & Bros., Opp. Dena Bank, Gandhi Rd., Ahmedabad 380001.

Karnataka

Arun Agencies, Dajiban Peth, Pendai Gali, Hubli 580020.
Khoday Industries Pvt. Ltd., No. 10, 1, Main Rd., Gandhinagar, Bangalore 560009.
Sajjan Ind., 124, Chord Rd., Rajajinagar, Bangalore 560010.

Kerala

Metropolitan Instruments Ltd., 241, Syrian Church Rd., Trivandrum 695001.

Maharashtra

Ashok File Ind., 185, Bazargate St., Bombay 400001.
Bombay Book Mfg. Co., 244, Raviwar Peth, Pune 411002.
Bombay Miscellanies Pvt. Ltd., Khan Manzil, 28, Calicut St., Bombay 400001.
Bombay Pencils Pvt. Ltd., Seksaria Indl. Estate, Malad West, Bombay 400064.
Bombay Stationery Mart, 7-A, Sir P. M. Rd., Bombay 400001.
Cartybon P. Ltd., Bakhtawar, 4th Flr., Nariman Point, Bombay 400021.
Crystal Stationery Mart, 146, A. Rehman St., Bombay 400003.
Deelip Stationery Mart, 299, A. Rehman St., Bombay 400003.
Eastern Industries, Kasturchand Mills Estate, Dr. M. C. Javle Rd., Dadar West, Bombay 400028.
Express Stationery Service, 12-A, Gunbow St., Bombay 400001.
Fixoclips, Dhutpapeshwar Prasad, Mangalwadi, Bombay 400004.
Hatim & Co. (Bookwala), 154, A. Rehman St., Bombay 400003.
Hind Commercial Agency, 16, Modi St., Opp. G.P.O., Bombay 400001.
Hindustan Pencils Pvt. Ltd., 510, Himalaya House, Palton Rd., Bombay 400001.
Killick Nixon Ltd., Coribonum Dn., 31, Murzban Rd., Bombay 400001.
Kores (I) Ltd., Plot No. 10, Off Dr. E. Moses Rd., Worli, Bombay 400018.
Lion Metal Ind., 187, A. Rehman St., Bombay 400003.
Lion Pencils Pvt. Ltd., Jolly Maker Chamber I, Nariman Point, Bombay 400021.
Mehra Leonardt Pens Pvt. Ltd., Mehra Estate, L. B. Shastri Marg, Vikhroli, Bombay 400079.
Mercantile Stationery Mfg. Co. Pvt. Ltd., Podar Chambers, S. A. Brelvi Rd., Bombay 400001.
Metrex Pvt. Ltd., Sunder Estate, Near Kamani, Kurla, Bombay 400070.
Paradise Pencils, A–114, Byculla Service Inds., Sussex Rd., Byculla, Bombay 400027.

Paramount Book Mfg. Co., 27, Sutar Chawl, Bombay 400002.
Rockvel Corpn., Anand Bhuvan, Sir P. M. Rd., Vile Parle (E), Bombay 400057.
Shah Book Mfg. Depot, 199, A. Rehman St., Bombay 400003.
Staple Pins Pvt. Ltd., 293, D. Upadhyaya Marg, Mulund, Bombay 400080.
Wire Pin Ind., 40, Chakala Rd., Andheri (E), Bombay 400069.

Punjab

Aero Stationery Works (Regd.), Basti Sheikh, Jullundur 144002.
Evershine Inds., Gill Rd., Miller Ganj, Ludhiana 141003.

Tamil Nadu

Madras Pencil Factory, Stringers St., Madras 600001.
V. Perumal Chetty & Sons, 15, Stringers St., Madras 600001.

Uttar Pradesh

Raj Pencil Mfg. Factory, 6-C, Ind. Estate, Clutterbuckganj, Bareilly 243502.

West Bengal

Bharat Carbon & Ribbon Mfg. Co. Ltd., 25, Brabourne Rd., Calcutta 700001.
Ganga Saran & Sons Pvt. Ltd., 1, Gibson Lane, Calcutta 700001.

OIL ENGINES

(See 'Engines—Oil' in this list).

OIL MILL MACHINERY

Bharat Industrial Corpn., Petit Compound, Bombay 400007.
De-Smet (India) Pvt. Ltd., Shree Niketan, A. Besant Rd., Bombay 400018.
K. Sudarshan Inds., Jandiala Rd., Tarn Taran 143401, Amritsar Dist.
Krishna Engg. Workshop, Charminar Factory Rd., Azamabad, Hyderabad 500020.
Lyallpur Engg. Co., G. T. Rd., Ghaziabad 201001.
Numex Engrs., 306, Commerce House, Medows St., Bombay 400001.
Nutak Engrs., 48, Saki Vihar Rd., Saki Naka, Bombay 400072.
Omega Indl. Corpn., G-2, Paras Nagar, Majas Rd., Jogeshwari East, Bombay 400060.
S. P. Foundries, 77–156, Latouche Rd., Kanpur 208001.
Swastik Engg. Co., Mukand Nagar, Ghaziabad 201001, U.P.
Tekma Machinery Mfg. Co. Pvt. Ltd., Saki Vihar Rd., Bombay 400072.
Troika Processes Pvt. Ltd., Mani Mahal, Mathew Rd., Bombay 400004.
United Engg. (Eastern) Corpn., 22, B. R. B. B. Rd., Calcutta 700001.
United Oil Mill Machinery & Spares Pvt. Ltd., 704, Chiranjiv Tower, 43, Nehru Place, New Delhi 110019.
Vulcan Laval Ltd., Mustafa Bldg., Sir P. Mehta Rd., Bombay 400001.

OIL MILLS—VEGETABLE

Andhra Pradesh

Andhra Pradesh Oil & Chemical Inds. Ltd., 5-91-29, Chandramoulinagar, Guntur 522007.
Kedia Vanaspathi (Pvt.) Ltd., Mir Alam Tank, Hyderabad 500002.
Tungabhadra Inds. Ltd., Walker Town, Hyderabad 500025.

Gujarat

Bhavnagar Oil & Chemical Ind. Pvt. Ltd., Bunder Rd., Bhavnagar 364001.
Bhavnagar Vegetable Products Ltd., P.B. 28, Bunder Rd., Bhavnagar 364001.
Deepak Solvent Extraction Ind., Jawahar Rd., Manavadar 362630, Junagadh Dist.
Prabhat Solvent Extraction Ind. Pvt. Ltd., Rajendra Rd., Manavadar 362630, Junagadh Dist.

Kerala

Easwar Oil Inds. Pvt. Ltd., Edapal 679576, Malappuram Dist.

Maharashtra

Ahmed Oomerbhoy, Ahmed Oomer St., Two Tanks, Bombay 400008.
Allana Oil Mills, Post Box No. 3646, Bombay 400004.
Berar Oil Industries, Vansada Peth, Akola 444001.
Bombay Oil Industries Pvt. Ltd., Kanmoor House, 281, N. Natha St., Bombay 400009.
Dautatram Rameshwarlal Pvt. Ltd., 215–17, Kalbadevi Rd., Bombay 400002.
Hindustan Lever Ltd., Haji Bunder, Sewree, Bombay 400015.
Importers Copra Crushing Ind. Ltd., 33, Immamwada Rd., Bombay 400009.
Indian Vegetable Products Ltd., Forbes Bldg., C. Rai Marg, Bombay 400001.
Jai Hind Oil Mills Co., 153, L.B.S. Marg, Bhandup, Bombay 400078.
Jayant Oil Mills, 13, Sitafalwadi, Mount Rd., Mazgaon, Bombay 400010.
Kamani Oil Industries, 323, Narsi Natha St., Katha Bazar, Bombay 400009.
Liberty Oil Mills, 16, L. Shastri Rd., Kurla, Bombay 400070.
Mansingka Ind. Pvt. Ltd., Maker Bhavan 1, New Marine Lines, Bombay 400020.
New India Oil Mills, 387-89, N. Natha St., Bombay 400009.
Raj Oil Mills, 228, Bellasis Rd., Bombay 400008.
Raja Oil Mills, 88, Masjid Bunder Rd., Bombay 400009.
Sanjiv Oil Inds., Karanja 444105. Akola Dist.
Shree Jagdish Oil Inds. Pvt. Ltd., 281–87, Narshi Natha St., Bombay 400009.
Sonawala Ind. Pvt. Ltd., 137, S. Memon St., Bombay 400002.
Tata Oil Mills Co. Ltd., Bombay House, Homi Mody St., Bombay 400023.
Ulhas Oil & Chemical Ind. Pvt. Ltd., 16, Apollo St., Bombay 400023.
Vegoils Ltd., L. M. Nadkarni Mrg., Wadala, Bombay 400031.
Western India Vegetable Products Ltd., Bakhtawar, Backbay Reclamation, Bombay 400021.

Orissa

Orissa Vegetable Oil Complex Ltd., 11-J, Lewis Rd., Bhubaneswar 751014.

Tamil Nadu

Nevatia Pvt. Ltd., 331–333, T. Chetty St., Madras 600001.
Yadalam & Co., 1, Thathamuthiappan St., Madras 600001.

Uttar Pradesh

Amrit Vanaspati Co. Ltd., Amritnagar, Ghaziabad 201100.
Jindal Vanaspati Udyog Pvt. Ltd., Ramnagar Rd., Kashipur 244713, Nainital Dist.
Modi Vanaspati Mfg. Co., Modinagar 201204.
Prag Vanaspati Products, Barafkhana, Aligarh 202001.

West Bengal

B. C. Paul & Sons Pvt. Ltd., 2–2, G. C. Chatterji Rd., Calcutta 700002.
Ivan Jones Ltd., P. N. B. House., 18-B, Brabourne Rd., Calcutta 700001.
Kusum Products Ltd., 9, Brabourne Rd., Calcutta 700001.
Swaika Group of Ind., P. N. B. House, 18-B, Brabourne Rd., Calcutta 700001.

OIL SEALS, 'O' RINGS

Advance Marketing Agencies (Regd.), Post Box 11, Calcutta 700001.
Allied Hydro-Pneumatic Equipments, 2 A, Banaji St., Off Cawasji Patel St., Bombay 400001.
Aruna Rubber Inds., 2, Paul Appasamy St., Off Giri Rd., Madras 600017.
Ashok Rubber Works, Post Box No. 17522, Bombay 400104.
B. Boral & Co., 22, Strand Rd., Calcutta 700001.
Benz Sales Corpn., 26, Kennedy Bridge, Bombay 400004.

Bombay Oil Seals Co., Kacharpatti Rd., Ghatkopar, Bombay 400086.
Chimanlal L. Vasa, 1st Avantikabai Gokhale St., Sandhurst Rd., Bombay 400004.
Crown Inds., Patel Motor Mkt., K. Gate, Delhi 110006.
Fenner (India) Ltd., 3, Madurai Melakkal Rd., Madurai 625016.
General Mfg. Co., 92, Narkula Ganj, Bareilly 243005 (U.P.).
Ghansham & Co., 501–3, S. V. P. Rd., Bombay 400004.
Gotom Elastomers, 3-156, Subhash Nagar, New Delhi 100027.
Indian Engg. & Trading Co. (Calcutta), P-40, Princep St., Calcutta 700013.
International Impex Corpn., 16, Kiln Lane, Bombay 400007.
La Prenca Inds. Pvt. Ltd., Sonawala Est., Sonawala Cross Rd., Bombay 400063.
Mykoda Auto Ind., 2, Krishna Motor Mkt., K. Gate, Delhi 110006.
N. D. Brothers, B-26, G. T. Karnal Rd., Indl. Area, Delhi 110033.
Oil Seals Mfg. Co. Pvt. Ltd., 10, Veer Nariman Rd., Bombay 400023.
Perfect Circle Inds., Clutterbuckganj, Bareilly 243052, U.P.
Perfect Circle Victor Ltd., S-305, L. B. S. Marg, Mulund, Bombay 400080.
Perfect Oil Seals & Industrial Rubber Products, Plot 84, MIDC, Bhosari, Pune 411028.
Peter Autokits Pvt. Ltd., Makwara Lane, Marol Naka, M. Vasanji Rd., Andheri (E), Bombay 400059.
Polyseal Inds. Pvt. Ltd., 18, Sidco Indl. Estate, Kappalur 626711; Madurai Dist. (Tamil Nadu).
Purohit Rubber Works, Kala Bhuvan, Mathew Rd., Bombay 400004.
Racmann Koshatkinn (Regd.), 53, Indl. Area, Najafgarh Rd., New Delhi 110015.
Southern Equipment Corpn., 22, Purushothamma Mudaliar Rd., Madras 600034.
Spare-Age (India) Ltd., 4-B, Purshottam Bldg., Tribhuvan Rd., Bombay 400004.
Super Seals India Pvt. Ltd., 1213, Kailash Bldg., New Delhi 110001.
Super Tools Centre, G-36, Sarvodaya Nagar, Bombay 400004.
Swastik Rubber Products Ltd., Swastik House, Pune 411003.
Universal Oil Seals Mfg. Co., Sidhpura Ind. Estate, Masrani Lane, Kurla, Bombay 400070.
Universe Trade Enterprises, 1, Princep St., 3rd Flr., Calcutta 700072.
Vako Seals, 3–4, K. R. D. N. Estate, Goregaon East, Bombay 400063.
Vinko Industries, 2820-M, Guru Nanak Auto Mkt., K. Gate, Delhi 110006.
Westoseals Corpn., Modi Chambers, French Bridge, Bombay 400004.
Zenith Rubber Ind., 19, Chandni Chowk St., Calcutta 700013.

OPTICAL FRAMES & INSTRUMENTS

Andhra Scientific Co. Ltd., R. Tagore Rd., Machilipatnam 521001.
Arun Opticals Pvt. Ltd., Mistry Mansion, 107, M. Gandhi Rd., Bombay 400023.
Bharat Ophthalmic Glass Ltd., Lenin Sarani, Durgapur 713210. *(Regnl. Offices:* K. Parikh House, 47, P. D'Mello Rd., Bombay 400009; 2/12 Meeran Sahib St., Madras 600006. 1B, Park St., Calcutta 700016.
Consol Products, B1, Royal Indl. Estate, Wadala, Bombay 400031.
Elite Optical Inds., 57, Mount Rd., Madras 600032.
Himalaya Opticals, E-13, Defence Colony, New Delhi 110023.
Hindustan Ophthalmic Lens Mfrs., Opp. Kothi Bus Stand, Vadodara 390001.
Indo-Asahi Glass Co. Ltd., 3, Hungerford St., Calcutta 700017.
Industrial Optics, 208, N. S. C. Bose Rd., Calcutta 700040.
Lawrence & Mayo (India) Pvt. Ltd., 274, Dr. D. N. Rd., Bombay 400001.
Metzer (India) Optical Instruments Co., 110, Himalaya House, Palton Rd., Bombay 400001.
Montex Corpn., Yusuf Bldg., M. Gandhi Rd., Bombay 400023.
National Instruments Ltd., 1/1, Raja S.C. Mullick Rd., Jadavpur, Calcutta 700032; Ansal Bhawan, K. Gandhi Mrg., New Delhi 110001; K. Parikh House, 47, P. D'Mello Rd., Bombay 400009; 150A/3, Anna Salai, Madras 600002; Coll. Square, Cuttack 753003.
Oberoi Optics International Pvt. Ltd., Sultan Singh Bldg., K. Gate, Delhi 110006.
Optical Instrumentation (India), 21, Beadonpura, New Delhi 110005.
Phiroze M. Dastur & Co., 379, Dr. D. N. Rd., Bombay 400001.
Spectra Systems Pvt. Ltd., M. S. R. Indl. Estate, Bangalore 560054.
Towa Optics India Pvt. Ltd., 4-C, Ansari Rd., New Delhi 110002.

ORTHOPAEDIC EQUIPMENT

(See under Medical Equipment).

PACKAGING MACHINERY

Autobisk Plants Co., East Cross, 32, Asoka Rd., Mysore 570001.
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Samarpan Fabricators Pvt. Ltd., Plot A-182/A-183, Rd. Z.; Off Rd. No. 16, Wagle Indl. Estate, Thane 400604.
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Vulcan Laval Ltd., Mustafa Bldg., 7-A, Sir P. Mehta Rd., Bombay 400001.
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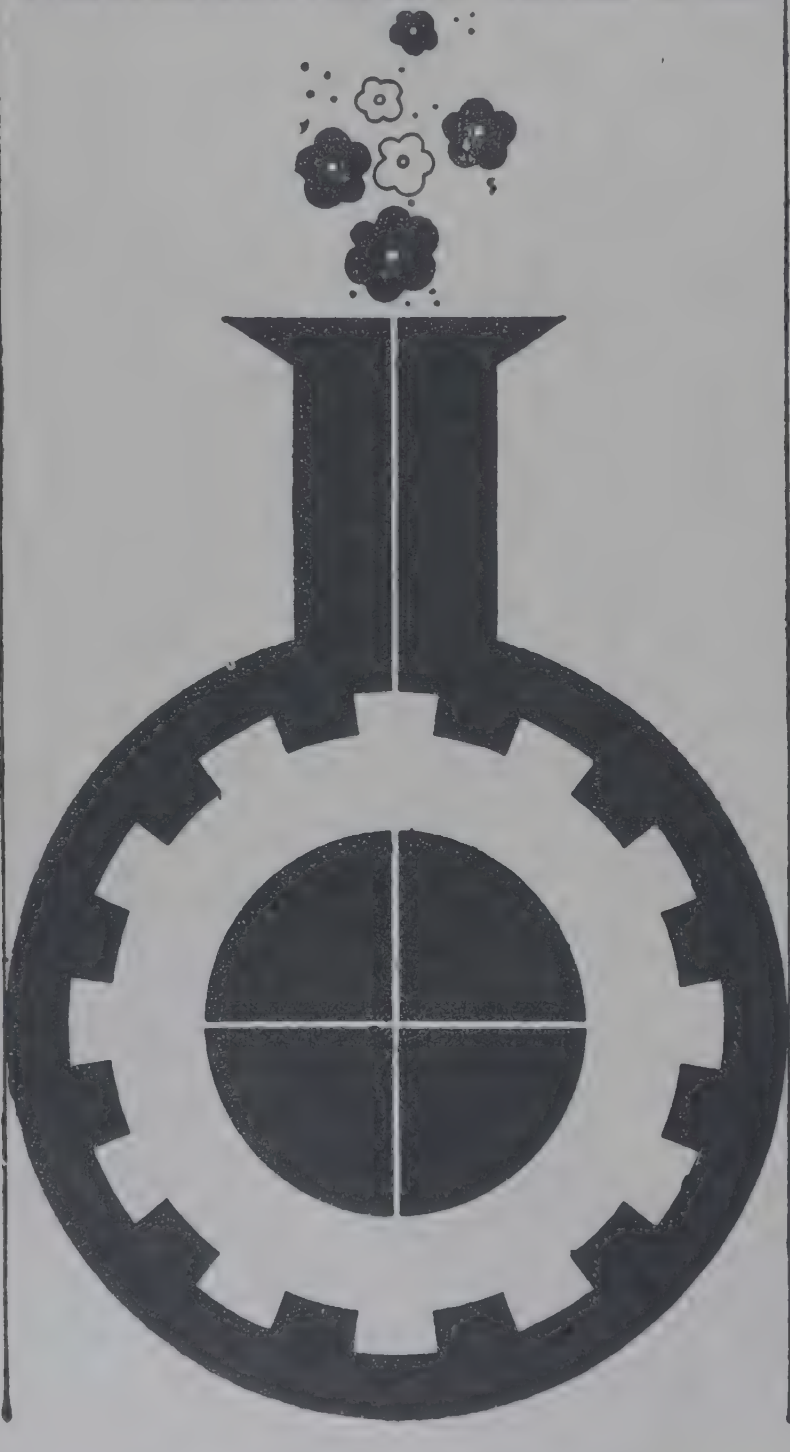

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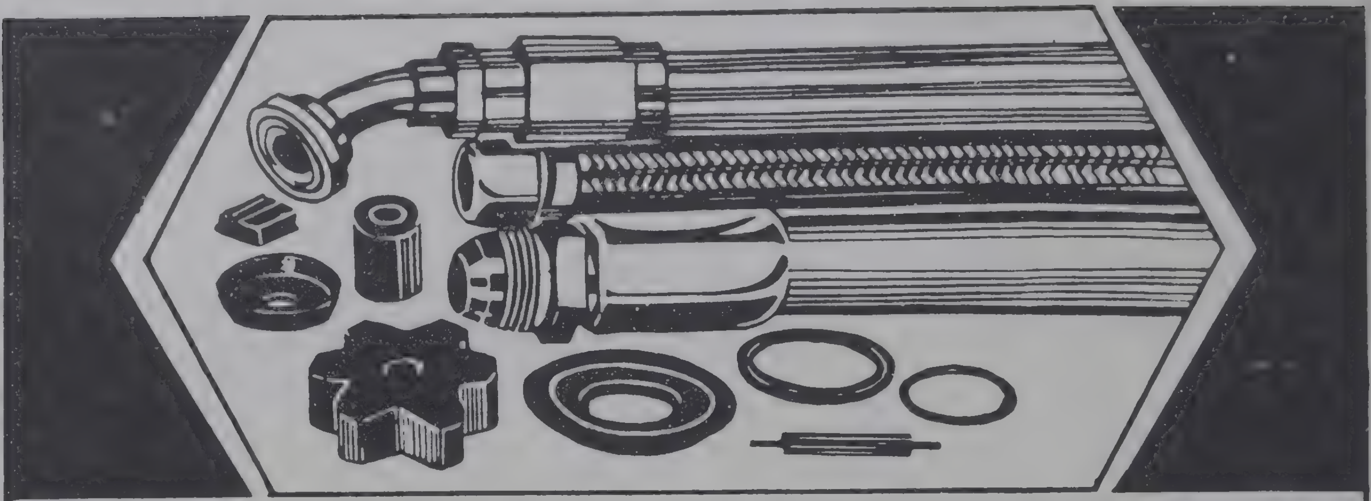

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Mysore Paint & Waterproof Ltd., Myritle Villa, H-A-2, Bangalore 560017.

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Reliable Colour Works, 61, Jail Rd. (North), Bombay 400009.
Sarang Paint & Varnish Ind., Masoli, Dahanu Rd. 40162. (W Rly).
Saurashtra Paints Pvt. Ltd., Court Chambers, New Marine Lines, Bombay 400020.
Savlar Paint & Varnish Works Pvt. Ltd., Saki-Vihar Rd., Saki Naka, Bombay 400072.
Sigma Paints Ltd., Old Nagardas Rd., 'Mogra', Andheri East, Bombay 400069.
Snehadeep Paints, 354, Great Nag Rd., Utkhana Layout, Nagpur 440009.
Snowcem India Ltd., Killick House, Charanjit Rai Mrg., Bombay 400001.
Star Paint & Oil Ind., Crescent Chambers, Tamarind Lane, Bombay 400023.
Superior Paint Industries, Irani Wadi, Kandivli, Bombay 400067.
Union Paint & Chemical Co., 1, Indian Metal Rolling Mill Compound, L. B. S. Marg, Vikhroli, Bombay 400083.
United Colour Co., 26-A, A. R. Rangnekar Marg, French Bridge, Bombay 400007.
Universal Paints Corpn. Pvt. Ltd., Marol, Military Rd., Bombay 400059.
Urvashi Ind., Block No. 16/A, Bombay Cotton Mills Estate, Kalachowki Rd., Bombay 400033.
Wakefield Paint Pvt. Ltd., 80, S. Vivekanand Rd., Jogeshwari, Bombay 400060.

Rajasthan

Alwar Paint, Colour & Varnish Works Ltd., Ind. Area, Alwar 301001.

Tamil Nadu

Addisons Paints & Chemicals Ltd., Huzur Gardens, Sembiam, Madras 600011.
Anuradha Paints, 149/1 Ramapuram, Mt. Poonamallee High Rd., Madras 600089.
British Paints India Ltd., 69, Peters Rd., Madras 600006.
Coromandel Paints & Chemicals Ltd., No. 5, Habibullah Rd., T. Nagar, Madras 600017.
Gasar Bros., Tuticorin 628003.
Madras Enamel Works Ltd., 65, Sydenham Rd., Madras 600003.
Ravi Paints & Chemicals Ltd., 85-87, Armenian St., Madras 600001.
Shalimar Paints Ltd., 11/12, Second Line Beach, Madras 600001.
Snow White Indl. Corpn., 368, T. H. Rd., Madras 600021.

Uttar Pradesh

Bansilal & Son, Sahibabad, Ghaziabad 201001.
Chemi Chrome Ind. Pvt. Ltd., 84/79, G. T. Rd., Kanpur 208001.

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Modi Paint & Varnish Works, Modinagar 201204.
Nagrath Paints Pvt. Ltd., 46, Fazalganj, Kanpur 208001.
National Chemical Works, P. B. No. 90, Varanasi 221001.
Punjab Paint Colour & Varnish Works, 123/529, Fazalganj, Kanpur 208001.

West Bengal

Alkali & Chemical Corpn. of India Ltd., 18, Strand Rd., Calcutta 700001.
Asiatic Paints & Chemicals, 3, Commercial Bldg., N. Subhas Rd., Calcutta 700001.
Associated Pigments Ltd., 14, N. Subhas Rd., Calcutta 700001.
Belur Paint & Colour Co., 2, Mullick St., Calcutta 700007.
Bengal Enamel Works Ltd., 24, Chittaranjan Ave., Calcutta 700012.
Bharat Tin & Enamel Co. Pvt. Ltd., 2-A, Shakespeare Sarani, Calcutta 700016.
Blue Star Enamelware Co. Pvt. Ltd., 4, Dalhousie Sq. East, Calcutta 700001.
British Paints (I) Ltd., 32, Chowringhee Rd., Calcutta 700071.
Calcutta Paint Colour & Varnish Works, 8, Chunapukur Lane, Calcutta 700012.
Dhariwal Paints Pvt. Ltd., 11, Clive Row, Calcutta 700001.
Eagle Paint & Pigment Ind. Pvt. Ltd., 135, B. R. B. B. Rd. Calcutta 700001.
East India Paint & Chemical Works Ltd., 21, G. C. Bose Lane, Calcutta 700050.
General Paint Co. of India, G.P.O. Box 2673, Calcutta 700001.
Hoyle's Paints Ltd., 2, Mangoe Lane, Calcutta 700001.
Indian Paint Colour & Varnish Co. Ltd., 14, N. Subhas Rd., Calcutta 700001.
Jenson & Nicholson (I.) Ltd., 225, A. J. Bose Rd., Calcutta 700020.
Kem Ind. Products Pvt. Ltd., 40, Tangra Rd., Calcutta 700015
Lakshmi Paint Works, 14/2, Old China Bazar St., Calcutta 700001.
M. L. Day & Co., 36, G. C. Ave., Calcutta 700013.
Macfarlane Paints, 18, R. N. Chowdhury Rd., Calcutta 700015.
Murarka Paint & Varnish Works Pvt. Ltd., 4E, Dalhousie Square East, Calcutta 700001.
N. Haldar & Co. Pvt. Ltd., 21/D, S. Chatterjee St., Calcutta 700006.
Napier Paint Works Pvt. Ltd., 1/2, Moti Sil St., Calcutta 700013.
Narayan Chowdhury Bros. Pvt. Ltd., 2, B.B.D. Bag East, Calcutta 700001.
Paints & Chemicals Co., 10, Govt. Place East, Calcutta 700069.
Paints & Lacquers, 3/A, Kabir Rd., Calcutta 700026.
P. C. Chanda & Co. Pvt. Pvt. Ltd., P-15/1, Chowringhee Sqr., Calcutta 700069.
Ruby Paint & Varnish Works Pvt. Ltd., 96, M. Gandhi Rd., Calcutta 700007.
Shalimar Paints Ltd., 13, Camac St., Calcutta 700017.
Solar Paints Pvt. Ltd., 14, Barrackpore Trunk Rd., Calcutta 700056.
Superlite Paints Corpn., 28, A. T. Mukherji Rd., Calcutta 700020.
Sur Enamel & Stamping Works Ltd., 24, Dr. L. M. Bhattacharya Rd., Calcutta 700014.
Technico Enterprises Pvt. Ltd., 592, Block 'O', New Alipore, Calcutta 700053.
United Paint Ind., 40/1, Strand Rd., Calcutta 700001.
Usasoke, 3, Portuguese Church St., Calcutta 700001.
Waldies Ltd., Gillander House, 8, N. Subhas Rd., Calcutta 700001.

PAPER & BOARD MILLS

Ameya Paper Mills Pvt. Ltd., Prananda, W. High Court Rd., Dharampeth, Nagpur 440010.
Arvind Boards & Paper Products Ltd., Bilimora 396321.
Bhadrachalam Paperboards Ltd., Post Box No. 4, Bhadrachalam 507111. (A.P.).
Bombay Board & Paper Mills Pvt. Ltd., Hamam House, Hamam St., Bombay 400001.
Gupta Paper Board Mills, Talab Bazar, Ludhiana 141001.
Handmade Paper Directorate, Khadi & Village Ind. Commission, Bombay 400056.
Manaylux Papers & Boards Pvt. Ltd., 69, Surveyorpet, Bangalore 560004.
Nath Pulp & Paper Mills Ltd., Adalat Rd., Aurangabad 431001.
Nizam Paper & Board Mills Ltd., Old Palace Bldg., Pudukottai 622001. (Tamil Nadu).
Parashuram Paper & Board Mfg. Co. Ltd., Subhash Timblo Bhavan, Margao 403601. (Goa)
Pudumjee Pulp & Paper Mills Ltd., Thergaon, Chinchwad, Pune 411033.
Seshasayee Paper & Boards Ltd., Erode 638007.
Sugam Paper & Board Mills Pvt. Ltd., Ninat, Surat Dist.
Surat Paper & Board Mills, 7, Tank St., Surti Mohalla, Off Nagpada, Bombay 400008.
Swastik Paper Ind., Sewree Cross Rd., Bombay 400015.
Tamilnadu Cardboards & Paper Mills Ltd., 6, Cathedral Rd., Madras 600086.
Tungabhadra Pulp & Board Mills, Munirabad 583234 (Raichur Dist.).

PAPER—GUMMED TAPE & CELLULOSE ADHESIVE TAPE

Amartara Ind., Saki-Vihar Rd., Bombay 400072.
Anu Inds., 2, Masrani Lane, Kurla, Bombay 400070.
B. D. M. Industries, Gamma House, Gamdevi Rd., Bombay 400078.
Diamond Products Ltd., 4, Clive Row, Calcutta 700001.
Gripwell Gum Tapes, Sidco Estate, Villivakkam, Madras 600049.
Natraj Paper Ind., 38/46, Nagdevi St., Bombay 400003.

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Strawboard Mfg. Co. Ltd., Saharanpur 247001, U.P.
Waterproof Corpn. Pvt. Ltd., Waco House, Masrani Lane, Kurla, Bombay 400070.

PAPER—HANDMADE

Jayant Paper Mills Ltd., Utran 394105, Surat Dist.
Khadi & Village Industries Commission, Irla Rd., Vile Parle (W), Bombay 400056.
Handmade Paper Research Centre, Agricultural College Compound, Pune 411005.

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Paper Machine Work Inds. Ltd., Paper Dn., SCO55, Madhya Mrg., Sector 26D, Chandigarh 160026.
Paper Products Ltd., Vaswani Mansions, D. Vachha Rd., Bombay 400020.
Sehgal Papers Ltd., 55, Nehru Place, New Delhi 110024.
Siddhomal Paper Conversion Co., Chawri Bazar, Delhi 110006.

PAPER CONES & TUBES

Bulcon Fibre Drums Pvt. Ltd., 58, MIDC, Andheri East, Bombay 400093.
Eastern Paper Tube Factory, Ashok Nagar, Chakravarti Ashok Rd., Kandivli East, Bombay 400067.
Fibre Foils Pvt. Ltd., A-6, MIDC Ind. Area, Andheri East, Bombay 400093.
Kamal Paper Cone Ind., Shed II, Indl. Area, Max Rd., Ujjain 456001.
Perfect Paper Cone & Tube Pvt. Ltd., 47-A, Virwani Ind. Estate, Goregaon (E), Bombay 400063.
Poly-Cone Paper Pvt. Ltd., 213, Udyog Mandir Bldg., No. 1, 7/C, Pitamber Lane, Mahim, Bombay 400016.
Super Prefab Systems Pvt. Ltd., A-114, Ghatkopar Indl. Estate, LBS Mrg., Bombay 400086.
Textile Paper Tubes (India), Jolly Bhuvan, 10, New Marine Lines, Bombay 400020.
Tungabhadra Pulp & Board Mills, Munirabad 583234 (Karnataka).
Universal Paper Tube Co., Rajgopal Bldgs., Variety Hall Rd., Coimbatore 641001.

PAPER CONVERTERS

Bijal Paper Converters, Badami Coal Compd., Bapunagar Indl. Estate, Ahmedabad 380024.
National Cardware Mfg. Co., Victoria Mills Compd., 55, Gamdevi, Bombay 400007.
Warden & Co. India Pvt. Ltd., 340, J. J. Rd., Byculla, Bombay 400008.

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Acme Machinery Co., 81-A, Dhanji St., Bombay 400003.
Bramson Enterprises, E-55, Indl. Area, Yamuna Nagar 135001. (Haryana).
Delta Engg. Co., 52, Indl. Estate, Phase II, Yamuna Nagar 135001. (Haryana).
Eastern Paper Mills Ltd., Engg. Dn. for Pulp & Paper Machinery, 2 Dakshindari Rd., Calcutta 700048.
Gautam Engg. Co. & Consultancy Services, Plot No. B-35, M.I.D.C. (Chemical Zone), Ambarnath 425101. (Thane Dist.)
H. R. (Paper) Machinery Pvt. Ltd., Acharya Commercial & Shopping Centre, Gala No. 116, Dr. Choitram Gidwani Rd., Wadhavli, Chembur, Bombay 400074.
Industrial Paper Machine Pvt. Ltd., 29, Sona Udyog Ind. Estate, P. P. Rd., Andheri (E), Bombay 400069.
Manco Engg. Corpn., F-53, Indl. Area, Yamuna Nagar 135001. (Haryana).
Paper Mill Plant & Machinery Mfrs. Ltd., 181, Vivekanand Rd., Bombay 400060.
Perfect Paper Makers, 34, Phase II, Scheme II, Okhla Indl. Estate, New Delhi 110020.
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Sadana Bros., 271, Frere Rd., Near G.P.O., Bombay 400001.
Servall, 10-Z, Krishnaswamy Naidu Layout, Coimbatore 641011.
Victor Machine Tools, 18, Kamruddin Ind. Estate, Kurla-Andheri Rd., Bombay 400072.

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(See also chapter on Paper Industry.)
Acme Papers, Herald House, B. Shah Zafar Mrg., New Delhi 110002.
Airfoil Papers Ltd., Sweet Cottage, Jayaji Chowk, Gwalior 474001.
Ajanta Paper & General Products Pvt. Ltd., Aban House, 5th Flr., Rope Walk Lane, Bombay 400001.
Amaravathi Sri Venkatesa Paper Mills Ltd., Palani Rd., Madathukulam 642113. (Tamil Nadu).
Andhra Pradesh Paper, Rajahmundry 533101. (A.P.).
Andrew Yule & Co. Ltd., 32, Nicol Rd., Ballard Estate, Bombay 400038.
Ashok Paper Mills Ltd., P.O. Ashok Paper Mills 783388. Goalpara Dist. (Assam).
Aurangabad Paper Mills Ltd., Mittal Tower, 16th Flr., B Wing, N. Point, Bombay 400021.
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Balkrishna Paper Mills Ltd., 18/24, Nandlal Jani Rd., Wadi Bunder, Bombay 400009.
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Bengal Paper Mills Co. Ltd., Raniganj 713347. (Burdwan Dist.), W. Bengal.
Bertams Scott India Ltd., 1/1, Kimber St., Calcutta 700017.
Bombay Paper Mfg. Co., 109, Sheikh Memon St., Bombay 400002.
Cauvery Papers Ltd., 169-A, Rajmahal Vilas Extn., Bangalore 560080.
Circar Paper Mills Ltd., 3/491, Lakshmipuram, Nellore 524002. (A.P.).
Continental Paper Mills (India), P.O. Mayithara Market 688539. (Kerala State).
Delta Paper Mills Ltd., Sriramapuram, Bhimavaram 534202. (W. Godavari Dist.), A.P.
Eastern Paper Mills Ltd., 2, Dakshindari Rd., Calcutta 700048.
Gangappa Paper Mills Ltd., 61, Moore St., Madras 600001.
Ganpati Pulp & Paper Mills Ltd., Municipal Bldg., Patharkuva, Relief Rd., Ahmedabad 380001.
India Paper & Pulp Co. Ltd., Hazinagar 743135 (24 Parganas Dist.).
Ipco Paper Mills Ltd., Elphinstone Mills Compd., N. M. Joshi Mrg., Bombay 400013.
Jayakwadi Pulp & Paper Mills Ltd., Bank of Maharashtra Bldg., 2nd Flr., Sitabuldi, Nagpur 440012.
Jayant Paper Mills Ltd., 132, Dr. A. Besant Rd., Worli, Bombay 400018.
Kabini Papers Ltd., No. 3969, Mysore Nilgiri Highway, Nanjangud 571301. (Karnataka State).
Karnataka Newsprint Mfg. Co. Ltd., 88, 2nd Main Rd., Palace Guttahalli, Bangalore 560003.
Kolleru Papers Ltd., Marellavari St., Bhimavaram 534201, A.P.
Madhya Bharat Paper Mills Ltd., Hongkong House, 31, B.B.D. Bagh (South), Calcutta 700001.
Mandya National Paper Mills Ltd., Belagula 571606 (Karnataka).
Mukerian Papers Ltd., G.T. Rd., Mukerian 144211. Hoshiarpur Dist. (Punjab).
Mysore Paper Mills Ltd., 16/4, Ali Ashker Rd., Bangalore 560052.
Nath Pulp & Paper Mills Ltd., Adalat Rd., Aurangabad 431001.
New Field Paper Industries, 48, 2nd Carpenter St., Khetwadi Main Rd., Bombay 400004.
Orient Paper & Inds. Ltd., Brajrajnagar 768216, Sambalpur Dist., Orissa.
Pai Paper & Allied Inds. Pvt. Ltd., Khorshed Bldg., Sir P. Mehta Rd., Bombay 400001.
Paper Mill Plant and Machinery Mfrs., 181, S. V. Rd., Jogeshwari, Bombay 400060.
Paper & Pulp Conversion Ltd., 376, Shukrawar Peth, Pune 411002.
Papyrus Papers Ltd., 4, India Exchange Place, Calcutta 700001.
Partap Paper Mills, The Mall, Amritsar 143001.
Pondicherry Paper Mills Ltd., Pilliarkuppam, Bahour Commune, Pondicherry 607402.
Porwal Pulp & Paper Mills Ltd., Porwal Mansion, Kamptee 441001. Nagpur Dist.
Pravara Pulp & Paper Mill, Pravaranagar 413712.Ahmednagar Dist.
Punalur Paper Mills Ltd., Punalur 691305. (Kerala State.)
Ramgopal Paper Mills Pvt. Ltd., No. 18, IV Cross, Gandhinagar, Bangalore 560009.
Rohit Pulp & Paper Mills Ltd., Rohit Chambers, Ghoga St., Bombay 400001.
Rohtas Industries Ltd., P.O. Dalmianagar 821305, Bihar.
Sardar Sahakari Paper Mill Ltd., Gangadhara 394310.Surat Dist.
Sarvodaya Paper Mills Ltd., 705, Akash Deep, 26A, Barakhamba Rd., New Delhi 110001.
Satia Paper Mills Ltd., Rly. Rd., Muktsar 152026. (Punjab).
Shirke Paper Mills Pvt. Ltd., 72-76, Indl. Estate, Mundhwa, Pune 411036.
Shiva Paper Mills Ltd., 1703-4, Nirmal Tower, 26, Barakhamba Rd., New Delhi 110001.
Shivashakti Paper Mills Ltd., Jatrapura, Vidisha 464001. (M.P.)
Shree Rayalaseema Paper Mills Ltd., TGL Bldgs., Adoni 518301, (A.P.).
Shree Vindhya Paper Mills Ltd., Empire House, 214, Dr. D. Naoroji Rd., Bombay 400001.
Sinnfein Engg. Inds. Pvt. Ltd. (Paper Mill Dn.), A-13, MIDC Indl. Area, Ratnagiri 415639.
Sivalik Cellulose Ltd., Dakshineshwar, 10, Hailey Rd., New Delhi 110001.
South India Paper Mills Pvt. Ltd., Nanjangud 571301. (Karnataka).
Standard Paper Ind. Corpn., 151, Broadway, Madras 600001.
Star Paper Mills Ltd., 27, Brabourne Rd., Calcutta 700001.
Sun Paper Mill Ltd., 46, E. V. K. Sampath Rd., Madras 600007.
Supreme Paper Mills Ltd., 8, Camac St., Calcutta 700017.
Tamil Nadu Newsprint & Papers Ltd., 16, Whites Rd., Madras 600014.
Telangana Paper Mills Ltd., Nehrunagar Colony, Khammam 507001. (A.P.)
Titaghur Paper Mills Co. Ltd., 95, Park St., Calcutta 700016.
Tokushu-Menon Paper Mfg. Co. Ltd., 110, St. Mary's Rd., Madras 600018.
Tribeni Tissues Ltd., 3, Middleton St., Calcutta 700007.
Udaipur Paper Mills Ltd., Sonkia Bhawan, SMS Highway, Jaipur 302003.
Union Paper & Board Mills Ltd., 18, N. Subhas Rd., Calcutta 700001.
Universal Paper Mills Ltd., 75C, Park St., Calcutta 700016.
Vamsadara Paper Mills Ltd., Post Box 50, Srikakulam. (A.P.)
Vapi Paper Mills Ltd., G.I.D.C., Vapi 396191. (Gujarat).
Vidarbha Paper Mills Ltd., Bank of Maharashtra Bldg., Sitabuldi, Nagpur 440012.
West Coast Paper Mills, Shreeniwas House, H. Soman Marg, Bombay 400001.
Western India Paper & Board Mills Pvt. Ltd., L.B.S. Mrg., Vikhroli, Bombay 400083.
Zenith Papers, Kothi No. 700, Phase 2, Mohali 160051. Ropar Dist. (Punjab).

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(See also Ball Point Pens & Refills)

Andhra Pradesh

Opec India Pvt. Ltd., 27, Co-op. Indl. Estate, Balanagar Extn., Gandhi Nagar, Hyderabad 500037.

Delhi

Anand Traders, 5254, Kaushalya Bhavan, Sadar Bazar. Delhi 110006.
Hindustan Plastic Corpn., C-239, Mayapuri Indl. Area, Phase II, New Delhi 110027.
Luxor Metaltec (India) Pvt. Ltd., 236, Okhla Indl. Estate, New Delhi 110020.

Maharashtra

Asian Art Ind., 30, Govt. Ind. Estate, Kandivli West, Bombay 400067.
Asian Pen & Plastic Inds., 424-A, Raut Ind. Estate, S. B. Mrg., Mahim, Bombay 400016.
Associated Pen Inds., Udyognagar, S. V. Rd., Bombay 400062.
Balkrishna Pen Pvt. Ltd., Nagardas Rd., Andheri (E), Bombay 400069.
Bombay Fountainpen Depot, 262, A. Rehman St., Bombay 400003.
Chandra Industries, Old Nagardas Rd., Andheri (E), Bombay 400069.
Cruiser Pen Inds., 20, Hare Rama Hare Krishna Indl. Estate, I. B. Patel Rd., Goregaon East, Bombay 400063.
Dhiraj Pen Mfg. Co. Pvt. Ltd., 58/59, Kurla-Andheri Rd., Bombay 400069.
Exen Inds., Parekh Nagar, S. Vivekanand Rd., Bombay 400067.
Kingson Pen & Plastic Inds., 12, Deven Indl. Estate, I. B. Patel Rd., Goregaon East, Bombay 400063

Lion Pencils Pvt. Ltd., 95, Parijat, Marine Drive, Bombay 400002.
M. S. M. Refills Mfrs., 308/310, Udyog Mandir No. 1, 7-C, Pitamber Lane, Mahim, Bombay 400016.
Mhatre Pen and Plastic Ind. Ltd., Tulsi Pipe Rd., Dadar, Bombay 400028.
National Plastic Inds., 5, Rewa Chambers, New Marine Lines, Bombay 400020.
Nibs India, Nagardas Rd., Andheri (E), Bombay 400069.
Pankaj Pen Ind., I. B. Patel Rd., Goregaon East, Bombay 400063.
Perfect Distributors Services, 286, Jolly Centre, Tilak Rd., Santacruz West, Bombay 400054.
Premier Products, Anuj Plastic, New Bldg., G. B. Rd., Dahisar, Bombay 400068.
Superior Pen Co., 35, Hare Rama Hare Krishna Indl. Estate, I. B. Patel Rd., Goregaon East, Bombay 400063.
Thakkar Pen Mart, 220A, Janjikar St., Bombay 400003.
Triplex Products, Agarwal Est., 139, G. S. Vivekanand Rd., Jogeshwari West, Bombay 400060.
Veekay Corpn., Parsian Apartments, V. P. Rd., Andheri West, Bombay 400058.
Watumull Ind. Pvt. Ltd., Delstar, 9-9A, S. Patkar Rd., Bombay 400026.
Wimco Pen Co., Mehta Indl. Estate, I. B. Patel Rd., Bombay 400063.

Tamil Nadu

Nurit Inks Pvt. Ltd., Post Box 2925, Madras 600004.
Pilot Pen Co. (I) Ltd., 6, Armenian St., Madras 600001.

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(See under Metals—Perforated in this list).

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Bombay Perfumery Co., 1997, Gali Nilawali, Sitaram Bazar, Delhi 110006.
Calcutta Perfumery Co., Behind Mahalaxmi Market, Chandni Chowk, Delhi 110006.
J. K. Ind. Perfumers, 7, Shankar Market, 1430, Chitli Qubar, Delhi 110006.
Navin Bharat Mfrs., D-373, Defence Colony, New Delhi 110024.
Sohan Singh Attarwala & Son, 6484, Katra Baryan, Fatehpuri, Delhi 110006.
Sunder Chemicals & Agarbatti Works, 1716/21, Behind Pili Kothi, S. P. Mukherjee Marg, Delhi 110006.

Gujarat

Gujarat Aromatics Ltd., Haribhakti House, Opp. Kala Ghoda, Sayaji Baug, Vadodara 390005.
J. B. Shah & Co., Pankaj Society, Sarkhej Rd., Ahmedabad 380007.
M. L. Rathod & Co., Opp. Gaisford Talkies, Rajkot 360001.
National Agarbatti Works, Station Rd., Nadiad 387001.
Neepo Aromatics, Opp. Central Bus Stn., Dhebarbhai Rd., Rajkot 360001.
R. V. Dodia & Co., Dodia Mansion, M. Gandhi Rd., Rajkot 360001.
Vale & Co., Nanbhawadi, Bhavnagar 364002.

Karnataka

Ananth Agarbathi Co., 11, Stores St., Kalasipalayam, Bangalore 560002.
Aravinda Parimala Works, Mysore 570004.
Aromatik (I) Pvt. Ltd., 38, Link Rd., Malleswaram, Bangalore 560003.
Aswathiah & Bros., B. V. (Regd.). 183, Nagarthpet, Bangalore 560002.
Bharani Agencies, "Keshava Nivas", First Main Gandhi Nagar, Bangalore 560009.
Bharat Ind. Corpn., 67, Third Cross Rd., Srirampuram, Bangalore 560021.
Gayathri Perfumery Works, 27, Kalasipalayam New Extn., Bangalore 560002.
Modern India Trading Co., 5, Park Rd., Bangalore 560002.
Mysore Agarbatti Co., 1, Madrasab St., Bangalore 560053.
Mysore G. S. Sugandha Works, Benkey Navab St., Bangalore 560002.
Mysore Sugandhi Dhoop Factory Pvt. Ltd., No. 1, G-13/14, Cottonpet, Bangalore 560002.
N. Rangarao & Sons, 100 ft. Rd., Mysore 570001.
Onam Agarbathi Co., 156, III Main Rd., Chamarajpet, Bangalore 560018.
Padma Perfumery Works, Post Box 7826, Bangalore 560053.
Padmini Products, K. Kamaraj Rd., Bangalore 560042.
Saibaba Sugandhi Bhandar, 30/6, Church St., Shanti Nagar, Bangalore 560027.
Sankranti Agarbatti Co., 33, Pillappa Lane, Nagarthpet Cross, Bangalore 560002.
Sarathi Perfumery Works, Ganigarpet, Bangalore 560002.
Sri Satyanarayana Parimala Factory, Mysore 570001.
Sri Vijayalaxmi Agarbathi Works, P. Box 7102, Bangalore 560053.
Sunanda Aromatic Ind., D-14, Sayyaji Rao Rd., Mysore 570001.
Super Perfumery Works No. 7, 1st Cross, Police Rd., Ramsinghpet, Bangalore 560053.

Maharashtra

A. A. Attarwala & Co., Commercial Chambers, Opp. Zakaria Masjid, Bombay 400003.
A. Hami Bros., 8, Patka Manzil, E. Rahimtoolla Rd., Bombay 400003.
A. J. Patwa & Co., 86, Sutar Chawl, Bombay 400002.
Acharya Products, 6, Sangeet Sagar, Laxminarayan Lane, Bombay 400019.
Amba Perfumery Works, 37/38, Lokmanya Tilak (V.G.) Mkt., Grant Rd., Bombay 400007.
Aromatic & Ind. Chemicals Pvt. Ltd., Mulji Jetha Bldg., 12, Champa Galli Cross Lane, Bombay 400002.
Aromatic Products & Chemicals Pvt. Ltd., 42, Prospect Chambers, Dr. D. Naoroji Rd., Bombay 400001.
Attar Md. Dawood & Bros., 43, Old Bengalipura St., Bombay 400003.
Attari Bros., 3, Commercial Chambers, Masjid Bunder Rd., Bombay 400003.
Bay Keris Inds., 825, S. K. Bhole Rd., Bombay 400002.
Calcutta Essence Supply Co., Mulchand Mansion, Shamaldas Gandhi Mrg., Bombay 400002.
Camphor & Allied Products Ltd., Jehangir Bldg., 133, M. Gandhi Rd., Bombay 400023.
D. D. Shah & Co., Damodar Bldg., 105, S. Gandhi Marg, Bombay 400002.
Dujodwala Ind., 1401, Prasad Chambers, Near Roxy Cinema, Bombay 400004.
Eastern Aromatics Pvt. Ltd., Datta Mandir Rd., Bhandup, Bombay 400078.
Enamdar Trading Co., Devkaran Mansion, 63, S. Gandhi Marg, Bombay 400002.
ESBE-Chem Products, 7, Neel Sagar Apartments, Prabhadevi, Bombay 400025.
Ethical Products (I) Pvt. Ltd., Advani Chambers, Sir P. Mehta Rd., Bombay 400001.
Famous Cosmetic Inds., 50, Dimtikar Rd., Nagpada, Bombay 400008.
Foreign Scent Supplying Syndicate, Station Rd., Goregaon West, Bombay 400062.
Fragrance and Flavour Corpn., C-11, Udyog Sadan, Marol Ind. Area, Andheri East, Bombay 400059.
Golax Ind. Perfumers, A-4, Shivaji Service Ind., Taikalwadi Rd., Bombay 400016.
Goldensum Mfg. Co., 4B, Ranvir Bldg., 70, Princess St., Bombay 400002.
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Industrial Perfumes Ltd., Hay Bunder Rd., Bombay 400033.
J. D. Savant & Co., Gordhandas Khimji Bldg., 35, Vithaldas Rd., Bombay 400002.
Kanta Flavouring Industries, A-15, Royal Indl. Estate, Naigaum Cross Rd., Bombay 400031,
Kausar Perfumers, Juma Masjid, Opp. Mangaldas Mkt., Bombay 400002.
Kora Gramodyog Kendra, Shimpoli Rd., Borivli West, Bombay 400092.
Lana Floressens, 178, C.S.T. Rd., Kalina, Bombay 400029.
M. M. Khambatwala, 440, Kalbadevi Rd., Bombay 400002.
Madhavji Mavji & Co., 206, Samuel St., Bombay 400003.
Manila Incorporation, 159/3, Cavel Cross Lane. 6, Kalbadevi Rd., Bombay 400002.
Mody & Co., Engineer Bldg., 265, S. Gandhi Marg, Bombay 400002.
Mukesh Industries, 7, Anjirwadi, Champsi Bhimji Rd., Mazgaon, Bombay 400010.
Mysore Dhoop & Agarbatti Works, E-2/2, Bharat Nagar, Grant Rd., Bombay 400007.
Mysore Fine Agarbatti Factory, Shop No. 50, M.M.C. Market, Grant Rd., Bombay 400007.
Mysore Sugandhi Dhoop Factory P. Ltd., 13, Commercial Chambers, Near Jakaria Masjid, Bombay 400003.
Mysore Y. S. Agarbatti Works, 6, Arab Lane, Byculla, Bombay 400008.
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National Essence Supply Co., Tanksal Bhavan, 191, Kalbadevi Rd., Bombay 400002.
National Trading Co., 190-91, Mangaldas Rd., Bombay 400002.
New India Aromatics Co., Devkaran Mansion No. 3, 45/47, S. Gandhi Marg, Bombay 400002.
Oriental Aromatics, Saraf Mansion, 32, S. Gandhi Marg, Bombay 400002
P. M. Rathod & Co. Pvt. Ltd., 453, Kalbadevi Rd., Bombay 400002.
Pearline Paris Pvt. Ltd., Rehman Bldg., 24, SV. Nariman Rd., Bombay 400001.
R. C. Aromatics & Chemicals, 139, Vivekananda Rd., Bombay 400060.
Rayon Ind., Navyug Mansion, N. Barucha Rd., Grant Rd., Bombay 400007.
S. H. Kelkar & Co. Pvt. Ltd., 36, Mangaldas Rd., Bombay 400002.
Satish Perfumers, 12-B, Shalimar Indl. Estate, Bombay 400019.
Shah Agarbatti Co., 66, Kalyan St., Bombay 400009.
Shri Mahila Griha Udyog Lijjat Papad, Agarbatti Dn., "Swanand", Dattapada, Borivli East, Bombay 400066.
Spac Aromas, Planet Indl. Estate, Subhash Rd., Bombay 400057.
Synoflor Co., Saraf Mansion, 32, S. Gandhi Marg, Bombay 400002.
Synthetics & Aromatics, 1/C, Kulsum Terrace, Walton Rd., Colaba, Bombay 400039

Pondicherry
Flavours India Pvt. Ltd., Shed Nos. 5 & 14, Type C, Mettupalayam Ind. Estate, Pondicherry 605001.

Tamil Nadu
Devi Industries, 19/20, Azad St., Gandhi Nagar, Madurai 625020.
K. B. Perfumeries, 25, Rasappa Chetty St., Madras 600003.
Maschmeijer Aromatics (India) Pvt. Ltd., G. S. T. Rd., Madras 600044.
Mercantile Corpn., 21, Third St., Gopalapuram, Madras 600086.
Millet Rochas Pvt. Ltd., 5, Tank Bund Rd., Madras 600034.
Robin Chemicals Pvt. Ltd., 1A/4, N. M. M. Rd., Aminjikarai, Madras 600029.

West Bengal
Allied Aromatics Ltd., 13, Camac St., 2nd Flr., Calcutta 700017.
Calcutta Essence Supply Co., 41, Ezra St., Calcutta 700001.
Jamnadas & Brothers Pvt. Ltd., 1, Bonfield Lane, Calcutta 700001.
Moolraj & Co., 33, Brabourne Rd., Calcutta 700001.
Mukti Agencies, 69-B, Salimpur Rd., Calcutta 700031.
National Aromatic Co., 70, B. R. B. B. Rd., Calcutta 700001.
National Perfumery House, 44/45, Ezra St., Calcutta 700001.
Pushpa Perfumery Products, 17, Lower Chitpur Rd., Calcutta 700001.
United Trades Agency (Calcutta), 34, Armenian St., Calcutta 700001.
Vesco Products Co., 66, Ezra St., Calcutta 700001.

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Andhra Pradesh State Inds. Development Corpn. Ltd., Agro Bhavan, 10-2-3, AC Guards, Hyderabad 500004.
Hyderabad Chemical Supplies Pvt. Ltd., Bank St., Hyderabad 500001.
Vayaz Indian Pesticides Pvt. Ltd., 16-B, Moula Ali Ind. Estate, Hyderabad 500040.
Volhro Ltd., 115, Park Lane, Secunderabad 500003.

Delhi
Dow Chemicals N. V., 14, Golf Links, New Delhi 110003.
Grain Conservation & Warehousing Ind. Pvt. Ltd., 16-B, Gangaram Hospital Marg, New Delhi 110060.
Hindustan Insecticides Ltd., E-3, Defence Colony, New Delhi 110024.
Industrial & Allied Sales Pvt. Ltd., Surya Kiran, 19, K. Gandhi Marg, New Delhi 110001.
Industrial Chemicals & Minerals, 4/5-B, A. Ali Rd., New Delhi 110002.
Jaipal Udyog, 604, Akash Deep, 26-A, Barakhamba Rd., Connaught Lane. New Delhi 110001.
Monsanto Chemicals of India Pvt. Ltd., 3/8, A. Ali Rd., New Delhi 110002.
Northern Minerals Pvt. Ltd., 138, Kamla Market, New Delhi 110001.
Pesticides India, 50, Manasarovar, 90, Nehru Place, New Delhi 110019.

Goa
Goa Pesticides Pvt. Ltd., Chowgule House, Margao 403601.
Hindustan Ciba Geigy Ltd., Santa Monica Plant, Corlim, Ilhas 403110.

Gujarat
Alembic Chemical Works Co. Ltd., Alembic Rd., Vadodara, 390003.
Cropmore Pvt. Ltd., C-5, Naroda Ind. Estate, P.O. Naroda 382330. Ahmedabad Dist.
Gujarat Insecticides Ltd., 48, Hill Rd., Bandra, Bombay 400050
Parul Industries, Kalali Rd., Atladra, Vadodara 390012.
Paushak Ltd., Alembic Rd., Vadodara 390003.
Selective Chemicals Pvt. Ltd., Ruvapari Rd., Bhavnagar 364001.
Vallabh Pesticides Mfg. Co., Vithal Udyognagar 388121. (Kaira Dist.).

Haryana
Jai Chemicals, 14/1, Mathura Rd., Faridabad 121003.

Karnataka
Agromore Ltd., Mysore Rd., Bangalore 560026.
Bangalore Pesticides Ltd., 33, Abshot Rd., Sankey Rd. Cross, Bangalore 560052.

Kerala
Aspinwall & Co. Ltd., Calvethy, Cochin 682001.
Entoma Insecticides & Agro Chemicals, "Ram Kripa", Yakkara Rd., Palghat 678001.

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Bayer (India) Ltd., Express Towers, Nariman Point, Bombay 400021.
Bharat Pulverising Mills Pvt. Ltd., Hexamar House, 28, Sayani Rd., Bombay 400025.
Bombay Chemicals Pvt. Ltd., 129, M. Gandhi Rd., Bombay 400023.
Camphor & Allied Products Ltd., Jehangir Bldg., 133, M. Gandhi Rd., Bombay 400023.
Central Insecticides & Fertilizers, Vihar Lake Rd., Saki Naka, Bombay 400072.
Dai-Ichi Karkaria Pvt. Ltd., Liberty Bldg., New Marine Lines, Bombay 400020.
Excel Ind. Ltd., 184-87, S. Vivekanand Rd., Jogeshwari, Bombay 400060.
Farm Chemicals Ltd., Advani Chambers, Sir P. Mehta Rd., Bombay 400001.
Ficom Organics Ltd., 701, Dalamal Towers, N. Point, Bombay 400021.
Gandhi Pharmacem Inds. Pvt. Ltd., 34, Ramchandra Bldg., Opp. G. T. Hospital, Tilak Rd., Bombay 400002.
Hico Products Pvt. Ltd., Mogal Lane, Mahim, Bombay 400016.
Hyleg Comfry Health Products Pvt. Ltd., Clark House, 8, Wodehouse Rd., Bombay 400039.
Indiclay, 2, Udyognagar, S. V. Rd., Goregaon West, Bombay 400062.
Indofil Chemicals Ltd., Nirlon House, Dr. A. Besant Rd., Bombay 400025.
Industrial Minerals & Chemical Co., 125, N. Dhuru St., Nagdevi, Bombay 400003.
Khandelwal Mineral & Pesticides, 'Shriji', 10-A, Bhagwaghar Layout, Dharampeth, Nagpur 440010.
Khandesh Pesticides Pvt. Ltd., Jolly Maker Chambers II, Room No. 97, Nariman Point, Bombay 400021.
National Organic Chemical Inds. Ltd., Mafatlal Centre, Nariman Point, Bombay 400021.
New Chemi-Mineral Mills Pvt. Ltd., Ashok Nagar Cross Rd. No. 1, Kandivli (East), Bombay 400067.
Pestokem Ind. Pvt. Ltd., 40/3, Shankar Vihar, 17th Rd., Chembur, Bombay 400071.
Sai-Chemie International, 203, Pushpa Bhavan, Opp. Telephone Bhavan, Colaba, Bombay 400005.
Sandoz (India) Ltd., Sandoz House, Dr. A. Besant Rd., Worli, Bombay 400018.
Saromal Products, Jehangir Villa, 107, Wodehouse Rd., Colaba, Bombay 400005.
Shroff's Indl. Chemicals Pvt. Ltd., 167, Dr. A. B. Rd., Bombay 400018.
Star Chemicals (Bombay) Pvt. Ltd., 21, Noble Chambers, Parsi Bazar St., Bombay 400001.
Sudhir Chemical Co., 524, Sayani Rd., Bombay 400025.
Sujanil Chemical Inds., 69, Wanawari Indl. Area, Kondhwa Rd., Pune 411001.
Sviluppo Attivita Industrialie Commercialie, S.P.A., Saheb Bldg., 195, Dr. D. Naoroji Rd., Bombay 400001.
Tata Fison Ind. Ltd., 21, Ravelin St., Bombay 400001.
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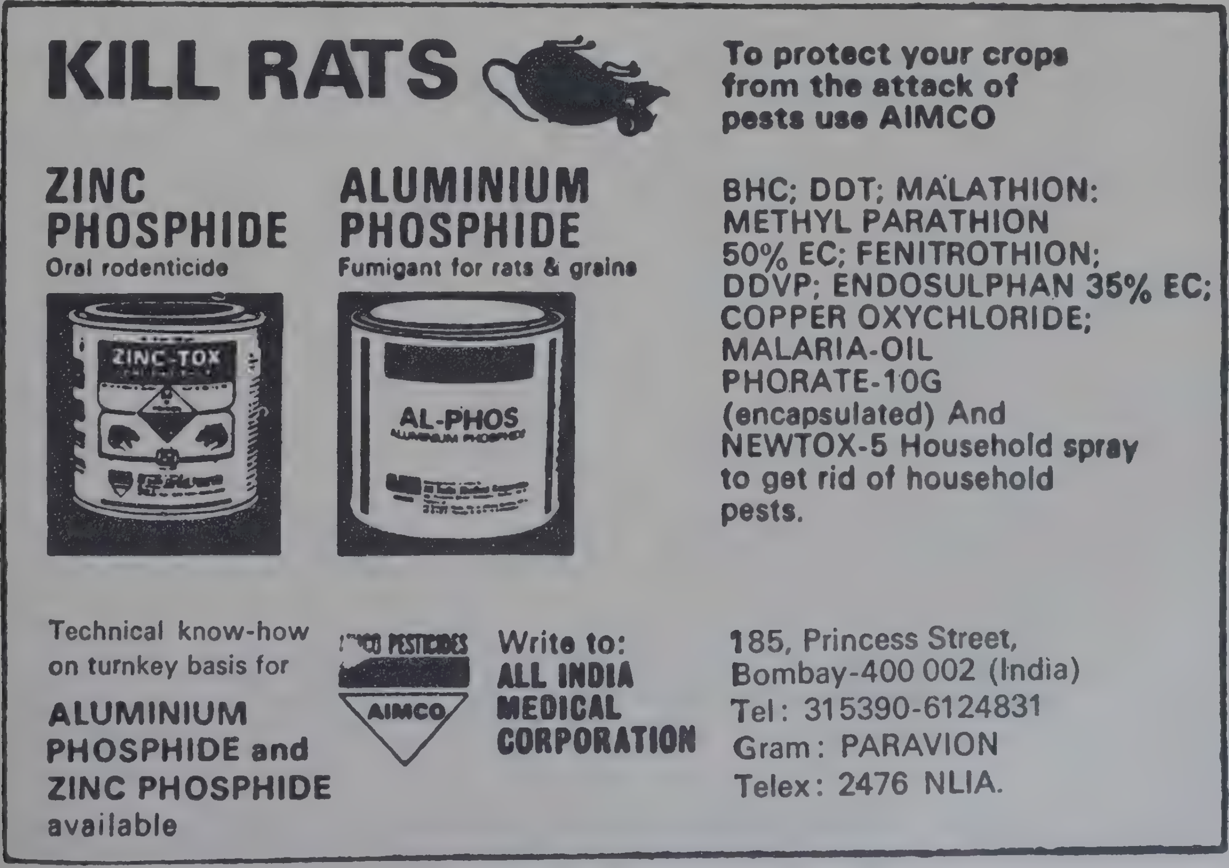
Punjab

Punjab Saltpetre Refinery Ltd., Ind. Estate, Ferozepur City 152001.
Punjab United Pesticides & Chemicals Ltd., 76, Sector 8-A, Chandigarh 160018.

Rajasthan

Gupta Chemicals Pvt. Ltd., Tripolia Bazar, Jaipur 302002.
Krishi Vyawastha, 47, Rui Mandi, Johari Bazar, Jaipur 302003.



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Jayalakshmi Fertilisers, Pesticides Dn., 59, G.N.T. Rd. Madhavaram, Madras 600110.

Mettur Chemicals & Ind. Corpn. Ltd., Mettur Dam R. S. 636402. Salem Dist.

Mysore Insecticides Co. Pvt. Ltd., Andhra Bank Bldg., No. 6, Linghi Chetty St., Madras 600001.

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Tropical Agro Systems Pvt. Ltd., 118, 2nd Flr., Broadway, Madras 600001.

Uttar Pradesh

Shivalik Rasayan Ltd., 140, Vasant Vihar, P.O. New Forest, Dehra Dun 248006.

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Croplife Chemicals Pvt. Ltd., 27, Bentinck St., Calcutta 700013.

India Alkalies Ltd., 5, Garstin Place, Calcutta 700001.

Kanoria Chemicals & Ind. Ltd., 9, Brabourne Rd., Calcutta 700001.

Metropole Chemical Ind., 73, N. Subhas Rd., Calcutta 700001.

Rajda Pesticides & Pest Control Corpn., 1, Portuguese Church St., Calcutta 700001.

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Mysore Petrochemicals Ltd., P. Box 34, Raichur 584101 (Karnataka).

National Organic Chemical Industries Ltd., Mafatlal Centre, Nariman Point, Bombay 400021.

Peddington Chemical Inds. (India), Wakefield House, Sprott Rd., Ballard Estate, Bombay 400038.

Petrosil Oil Co. Ltd., Steelcrete House, 3, Dinsha Vachha Rd., Bombay 400020.

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Savita Chemicals Pvt. Ltd., Nariman Bhavan, 6th Flr., Nariman Point, Bombay 400021.

Sharavati Petro-Chemicals Pvt. Ltd., 9th Mile, Old Madras Rd., Virgonagar, Bangalore 560049.

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Campbell Electronics, Prabhadevi Indl. Estate, V. Savarkar Mrg., Bombay 400025.

Frigmaires Engrs., Bharat House, 104B, Bombay Samachar Mrg., Bombay 400023.

Metadie Engg. Pvt. Ltd., 2 & 3, Vijay Indl. Estate, I. B. Patel Rd., Goregaon East, Bombay 400063.

Oriental Machinery (1919) Pvt. Ltd., 25, R. N. Mukherjee Rd., Calcutta 700001.

Pam Pharmaceutical & Allied Machinery Co. Pvt. Ltd., 131, Kandivli Indl. Estate, Bombay 400067.

Pharmalab Inds., Star Metal Compd., Vikhroli, Bombay 400083.

Sapphire Machines Pvt. Ltd., Plot 12638, Kalpataru, Prabhadevi, Bombay 400025.

United Engg. Co., Ashok Villa, Vallabhbhai Rd., Vile Parle West, Bombay 400056.

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Capital Photo Services Pvt. Ltd., 40, Lenin Sarani, Calcutta 700013.

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Ensign India Pvt. Ltd., P.O. Box 2459, Calcutta 700001.
Gansons Ltd., 131, Mount Rd., Madras 600006.
Great India Trdg. Co., 8, Beaumon Chambers, 27/33, N. Master Rd., Bombay 400001.
India Photographic Co. Ltd., 222, Dr. D. N. Rd., Bombay 400001.
K. Photo Equipment, 68/2, Mill Rd., Aishbagh, Lucknow 296004.
Kesho Ram & Sons India Pvt. Ltd., Opp. Dariba, Chandni Chowk Delhi 110006.
Patel India Pvt. Ltd., 190, Dr. D. Naoroji Rd., Bombay 400001.
Pharmalab Inds., Star Metal Compd., Agra Rd., Vikhroli, Bombay 400083.
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Vacuum India, A-12/13, Naraina Indl. Area, Phase I, New Delhi 110028.

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National Instruments Ltd., Ansal Bhawan, K. Gandhi Marg, New Delhi 110001

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Tamil Nadu

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Devi Cine Projector Mfg. Co., B-7, Ind. Estate, Guindy, Madras 600032.
National Instruments Ltd., 150A/3, Anna Salai, Madras 600002.
Pandyan Studio, 29, Pycrofts Rd., Madras 600005.
Visual Education Aids, Old Pykara Bldg., Avanashi Rd., Coimbatore 641018.

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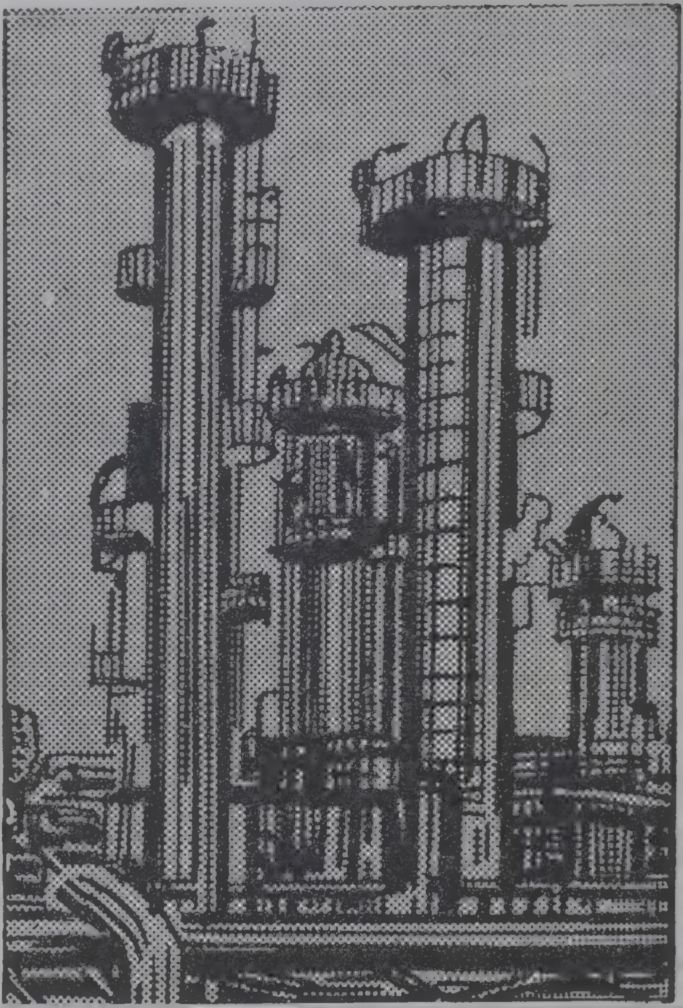

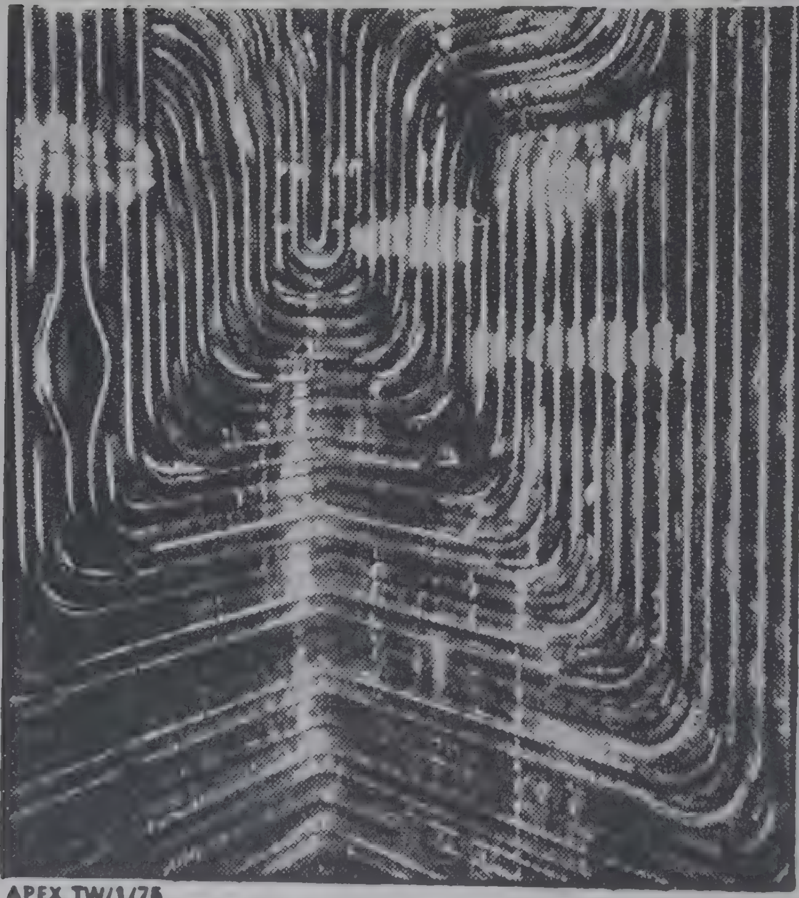

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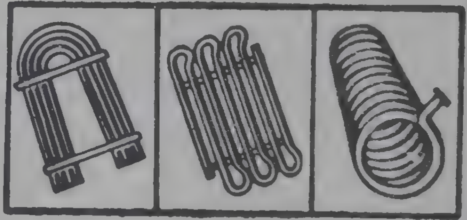

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Allied Piping Products India Pvt. Ltd., 31, Sipcot Indl. Complex, Hosur 635126. (Tamil Nadu).
Bengal United Co. Pvt. Ltd., Dolphin Court, 7/A, Middleton St., Calcutta 700071.
Bharat General Trading Co., 184, Mandvi Chambers, Samuel St., Bombay 400009.
Doneria Pvt. Ltd., 10/4, Hathras Rd., Agra 282006.
Eastern Equipment Co., 5/1, Clive Row, Calcutta 700001.
Extol Enterprises, Post Box 16204, Mazgaon, Bombay 400010.
Fibre Pipes India Ltd., 80, Avvai Shanmugham Rd., Madras 600014.
Heliplastics Ltd., Jeroo Bldg., 137, M. G. Rd., Bombay 400023.
India Electric Poles Mfg. Co., 2nd Lane, Darukhana, Bombay 400010.
Indian Hume Pipe Co. Ltd., Construction House, W. Hirachand Marg., Bombay 400038.
Jain Pipe Mfg. Co., Post Box No. 20, Jalgaon 425001.
Jindal Pipes Pvt. Ltd., 1/23-B, Asaf Ali Rd., New Delhi 110002.
Korba Pipe Co., Main Rd., Korba 495677 (M.P.).
M. J. Patel & Co. Pvt. Ltd., 116, P. D'Mello Rd., Bombay 400009.
Madras Engg. Works, 1, Kika St., Gulalwadi, Bombay 400004.
Mechanical Packing Inds. Pvt. Ltd., 15, Parsi Panchayat Rd., Andheri East, Bombay 400069.
National Casting Co., 103, Foreshore Rd., Howrah 711103.
Neo Pipes & Tubes Ltd., 1 & 2, Hare St., Calcutta 700001.
Pipe Supports (Indo British) Pvt. Ltd., 24, Stephen Court, 18, Park St., Calcutta 700016.
Progressive Fittings Pvt. Ltd., Taj Bldg., 3rd Flr., Dr. D. N. Rd., Bombay 400001.
R. M. Engg. Works, Rohit Mill Premises, Khokhra Mehmedabad, Ahmedabad 380008.
Raab Pipework Pvt. Ltd., 55, Wallajah Rd., Madras 600002.
Raj Iron Foundry, Sultanganj, Agra 282004.
Sakhi Engrs., 99/A, Mittal Chambers, Nariman Point, Bombay 400021.
Sandeep Inds., 25, N. Subhas Rd., Jullundur 144004.(Punjab).
Sementex Spun Pipes Pvt. Ltd., Mira, Thane 401104.
SHI Engineers, 46, SIDCO Indl. Estate, Coimbatore 641021.
Sivananda Pipe Fittings Ltd., 1, Rajmahal Vilas Extn., Mekhri Circle, Bangalore 560080.
Shreelakshmi Castings Works Pvt. Ltd., 278, Chittaranjan Ave., Calcutta 700006.
Stewarts & Lloyds of India Ltd., 41, Chowringhee, Calcutta 700071.
Subedar Inds., 48-A, Magazine St., Mazgaon, Bombay 400010.
Teekay Tubes Pvt. Ltd., 315/317, Navrattan, P. D'Mello Rd., Bombay 400009.
(Also see, 'Tubes, Pipes and Fittings' in this list.)

PLASTICS

CELLULOSE ACETATE

Karnataka

Mysore Acetate & Chemicals Co. Ltd., Sir J. Wadiyar Rd., Bangalore 560002.

West Bengal

East Anglia Plastics (Ind.) Ltd., 3, Camac St., Calcutta 700016.

P. F. MOULDING POWDER/RESINS

Bakelite Hylam Ltd., Tiecicon House, 18, Dr. E. Moses Rd., Bombay 400011.
Plastic Resins & Chemicals Ltd., Sahupuram, Arumuganeri 628202 (Tirunelveli Dist.) Tamil Nadu.

PLASTIC BLOW MOULDING

Bihar

R. B. Plastic & Metal Ind., P.O. Jharia 828111, Dhanbad Dist.

Delhi

B. K. Plastic Pvt. Ltd., A207, Defence Colony, New Delhi 110003.
India Plastics, 15-A, Sabharwal Market, New Delhi 110006.
Maidan Brothers, 277, Sadar Bazar, Delhi 110006.

Gujarat

Ente Plastic Co., 12A, Bharatkhand Cotton Mills Comp., Naroda Rd., Ahmedabad 380002.
Hindustan Polythene & Plastic Works, Ind. Area, Yamuna Mill Rd., Vadodara 390004.
Vora Plastics Manufg. Co., Vora Baug, Ghuntu Rd., P.B. 54, Morvi 363641.

Kerala

Modern Plastic Ind., Neerkunnam, Alleppey 688005.

Maharashtra

Arun Plastics, 74A, Govt. Kandivli Ind. Estate, M. Gandhi Rd., Kandivli West, Bombay 400067.
Ashok Plastics, 511, Arun Chambers, Tardeo, Bombay 400034.
Ashok Traders, 129-C, Govt. Indl. Est., Kandivli (W), Bombay 400067.
Bharat Plastic Corpn., 122, Mittal Tower, 'C' Wing, 12th Flr., N. Point, Bombay 400021.
Blow Plast Pvt. Ltd., Gauthan Rd., Off Bombay-Agra Rd., Bhandup, Bombay 400078.
Bright Bros. Ltd., 156A, J. Dadajee Rd., Bombay 400034.
Central Machinery & Plastic Products, 11, Tarun Indl. Estate, Mogra Rd., Andheri East, Bombay 400069.
Everest Indl. Corpn., 102, Sona Udyog Bhavan, Parsi Panchayat Rd., Andheri (E), Bombay 400069.
Garware Plastics Pvt. Ltd., Western Express Highway, Vile Parle, Bombay 400057.
General Plastics, 8, Tamarind Lane, Bombay 400023.
Indian Plastics Ltd., Poisar Bridge, Ghodbunder Rd., Kandivli, Bombay 400067.
Kalpana Plastic Ind., 20/3, Hadapsar Ind. Estate, Pune 411013.
Kosmek Plastic Mfg. Ltd., Old B.P.T. Rd., Mahul, Chembur, Bombay 400074.
Model Containers, C/o H. P. Shah & Company, 689, Govind Chowk, M. J. Market, Bombay 400002.
PVD Plast Mould Ind., 43, Forbes St., Bombay 400023.
Shree Kailash Texplabo Ind. & Agencies Pvt. Ltd., Prabhadevi Ind. Estate, Cadell Rd., Bombay 400025.
Sunlight Plastic Ind., 324, A to Z Ind. Estate, Fergusson Rd., Lower Parel, Bombay 400013.
Vinod Plastic Works, 248, 252, A. Rehman St., Bandukwala's Bldg., Bombay 400003.

Punjab

Baljit Bros., Chowk Lachmansar, Amritsar 143001.

Tamil Nadu

Nirmala Plastic Works, 170/2, S. C. Bose Rd., Madras 600001.
Polyene General Ind., Unit 11A, Ind. Estate, Guindy, Madras 600032.

Uttar Pradesh

Lari Ind., Iqbal Manzil, Near City Station, Lucknow 226001.

West Bengal

Ever Bright Plastic Works, 10/1, Portuguese Church St., Calcutta 700001.
Indar Plastic Works, 56/1, Canning St., Calcutta 700001.
Radheshyam Plastic Ind., 65-A, Nimtollaghat St., Calcutta 700006.

PLASTIC CANE & ROPES

Hyderabad Polyethylene Ind., 5/4/383, Mukaramjahi Rd., Hyderabad 500001
Indar Plastic Works, 56/1, Canning St., Calcutta 700001.
Maharashtra Plastic Industries, Subhas Nagar, Off Caves Rd., Jogeshwari East, Bombay 400060.
Polymers (I) Pvt. Ltd., 10, Mall Rd., Dum Dum, Calcutta 700028.
Ravish Synthetic Twines & Ropes Pvt. Ltd., B-70, Ind. Estate, Rajajinagar, Bangalore 560010.

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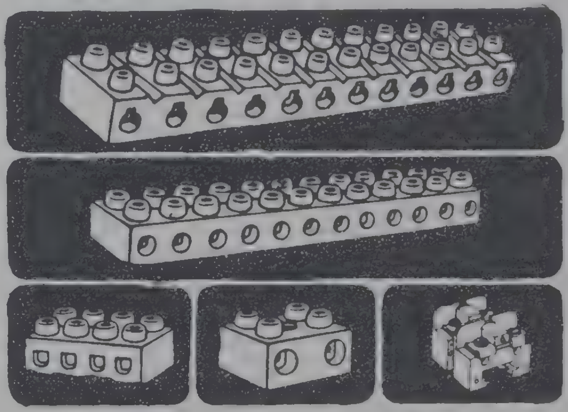

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Globe Products (India), 24, Friends Colony, G. Trunk Rd., Shahdara, Delhi 110032.

Gujarat

Alembic Chemical Works Co. Ltd., Vadodara 390003.
Hemant Bros., Super Market, Ashram Rd., Ahmedabad 380009.
Plastic Products Engg. Co., 'Lavanya', Behind Ahmedabad Medical Association Hall, Ahmedabad 380009.

Haryana

Nuchem Plastics Ltd., 54, Ind. Estate, Faridabad 121001.

Karnataka

Associated Trdg. Corpn., 48/4, Sri Jayachamarajendra Rd., Bangalore 560002.

Maharashtra

Barakaso Pvt. Ltd., Ishwarbhai Patel Rd., Goregaon East, Bombay 400063.
Baroda General Ind., Ram Baug, S. Vivekanand Rd., Malad, Bombay 400064.
Cipra Bakelite Co., Rout Wadi, Moghul Lane, Mahim, Bombay 400016.
Daylight Plastic Ind., 45, Suryodaya Mills Comp., Tardeo, Bombay 400034.
Ellora Art Ind., Shreejee Bhuvan, Lohar Chawl, Bombay 400002.
Imperial Ind. Co., Opp. Sitladevi Temple, L. Jamshedji Rd., Mahim, Bombay 400016.
Miland Products, 64-D, Govt. Ind. Estate, Kandivli, Bombay 400067.
Plastella, 91, S. Vivekanand Rd., Borivli, Bombay 400092.
Podar Plastics Pvt. Ltd., Podar Chambers, Parsee Bazar St., Bombay 400001.
Polymer Products Co., Saki-Vihar Lake Rd., Bombay 400072.
Polypick Ind., Bombay Mutual Bldg., Dr. D. Naoroji Rd., Bombay 400001.
Polyset Corpn., Plot No. A-44-45, M.I.D.C., Marol Ind. Estate, Mahakali Caves Rd., Bombay 400069.
Presto Ind., 106, Kansara Chawl, Kalbadevi Rd., Bombay 400002.
Presto-O-Lite, Ghodbunder Rd., Opp. Bandra Bus Garage, Santa Cruz, Bombay 400054.
Sputnik Ind., 30, Tejpal Rd., Vile Parle East, Bombay 400057.
Walchandnagar Ind. Ltd., Construction House, Ballard Estate, Bombay 400038.

Tamil Nadu

Plasticraft Ind., Velachery Rd., Madras 600042.
Praga Ind. Pvt. Ltd., Avanashi Rd., Coimbatore 641018.

Uttar Pradesh

Plastics Products Ltd., Kamla Tower, Kanpur 208001.

West Bengal

Assam Produce Co. Pvt. Ltd., 4, India Exchange Place, Calcutta 700001.
Eastern Traders (Agencies), 3, Chittaranjan Ave., Calcutta 700013.
Orient Plastic Ind., 12, Portuguese Church St., Calcutta 700001.
Universal Moulders, 4, Canal Rd., New Alipore, Calcutta 700053.

PLASTIC CRATES

Nilkamal Plastic & Allied Inds., 5, Rewa Chambers, New Marine Lines, Bombay 400020.

PLASTIC ELECTRICAL ACCESSORIES

Delhi

Rexco Ind. (India), Expo Plastics, G-35, Gulabi Baghi, Delhi 110007.

Maharashtra

Automats Engineers, T. K. Ind. Estate, King Edward Rd., Bombay 400015.
Merchant & Co. Pvt. Ltd., 162, Tulsi Pipe Rd. South, Lower Parel, Bombay 400013.
Novelty Plastics, Dayalal Compd., S. V. Rd., Malad West, Bombay 400064.
Standard Batteries Ltd., Vakola, Santa Cruz, Bombay 400055.

PLASTIC EXTRUSION

Andhra Pradesh

Hyderabad Polyethylene Ind., 5/4/383, Mukaramjah Rd., Hyderabad 500001.
Indian Detonators Ltd., Sanatnagar, Hyderabad 500018.

Delhi

T. S. Gomber Engg. Works, A-119, Wazirpur Indl. Area, Delhi 110052.
Tobu Enterprises Pvt. Ltd., 8/29, Indl. Area, Kirti Nagar, New Delhi 110015.

Gujarat

ABS Plastics Ltd., 51, GIDC Indl. Estate, Nandesari 391340. (Vadodara Dist.).
D. R. Industries, Swaminarayan Godown, Outside Dariapur Gate, Ahmedabad 380001.
Deutron Plastic Ind., Gujarat Laghu Udyog Vikas Mandal, Shamapur Gate, Ahmedabad 380001.
Gujarat Packaging Inds., Plot 165/3, Udyog Nagar, Udhna 394210.
Hindustan Polythene & Plastic Works, Yamuna Mill Rd., Vadodara 390004.
Modern Plastics Corpn., 4/4488, Begampura, Surat 395001.
Monalax Plastics, Sabhir House, Near Hajoori Soda Factory, Salabalgoura, Surat 395002.
Polypack Plastics, 85, G.I.D.C., Indl. Est., Vatva 382445.
Unick Plastics Ind., Plot No. 2/A/2/3, Udhna Ind. Estate, Udhna 394210, Surat Dist.

Karnataka

D. M. Industries, Morzaria Ind. Estate, 4, Banarghatta Rd., Bangalore 560029.

F. Fibre Corpn., A-83, Ind. Estate, Rajajinagar, Bangalore 560010.
Jambo Plastics Pvt. Ltd., M. S. Ramaiah College Comp., Gokul, Bangalore 560054.
Multiplast Ind. (Karnataka) Pvt. Ltd., P.B. 10, Hospet 583201.
Precision Extrusions, 8/B, Daddannadhundi Indl. Area, P.O. Mahdevpura, Bangalore 560048.
T. T. Pvt. Ltd., Duravaninagar, Bangalore 560016.

Kerala

Kumar Ind., Sree Devi, Kottumukku, Quilon 691001.
Phoenix Plastics, Kottayam 686001.

Maharashtra

Airoplast Private Ltd., C/40, 'Y' Rd., Wagle Ind. Estate, Thane 400604.
Ashok Plastics Ind., Shed No. 12, Ind. Estate, Dhule 424001.
Atom Plast, "Bhavna", 422, V. Savarkar Rd., Bombay 400025.
Bombay Synthetic Corpn., Govt. Ind. Estate, Plot No. 81, Kandivli West, Bombay 400067.
Chemo Plastics, 14, 'Sailesh', 59/75, Forjett St., Bombay 400026.
Dhiren Plastic Inds., A-101, Ghatkopar Indl. Estate, Bombay 400086.
Dhoot Chemo Plast Pvt. Ltd., Kranti Chowk, Aurangabad 431001.
Dikay Inds., 32, Sidhpur Indl. Est., Goregaon (W), Bombay 400062.
Eagle Enterprises Pvt. Ltd., 141, S. Devjee St., Bombay 400003.
F. Block Agencies Pvt. Ltd., Shale Bldg., Bank St., Bombay 400023.
Ganesh Ind., 32/34, 1st Marine St., Bombay 400002.
Glosso Pack Ind., Laxmi Woollen Mills Comp., B. Jagtap Rd., Bombay 400011.
Kaveri Plastichem Pvt. Ltd., Bullion Exchange Bldg., Jhaveri Bazar, Bombay 400002.
Maharashtra Plastic Ind., 312, Kalbadevi Rd., Bombay 400002.
Nova Plast Ind. Pvt. Ltd., Shree Laxmi Silk Mills Premises, M. C. Javla Rd., Bombay 400028.
Nylo Plast Ind. Pvt. Ltd., Nyloc House, 254-D2, Dr. A. Besant Rd., Prabhadevi, Bombay 400025.
Packart, Ahmedabad House, 13/15, W. H. Mrg., B. Estate, Bombay 400038.
Plastic Extruders Pvt. Ltd., National Insurance Bldg., Dr. D. Naoroji Rd., Bombay 400001.
Plastic Extrusion Products, M.I.D.C. Ind. Estate, Plot No. 16/17, II Cross Rd., J. B. Nagar, Bombay 400059.
Plasticable Pvt. Ltd., Lentin Chambers, 36, Dalal St., Bombay 400023.
Plastics Engg. Corpn., 14, Sainath Indl. Estate No. 2, Off Aarey Rd., Goregaon East, Bombay 400063.
Plastoflex Ind., 46, Nagdevi St., Bombay 400003.
Plasto-Pack Ind., 5-B, Suryodaya Mills Comp., Tardeo, Bombay 400034.
Polymers & Resins Corpn., 46, V. Nariman Rd., Opp. Akbarally's, Bombay 400001.
Shree Mahalaxmi Trading Corpn., 198, Kalbadevi Rd., Bombay 400002.
Thermo-Plastic Ind., 78, Kalachowki Rd., Lalbaug, Bombay 400033.
Trinity Plastics, 238, Nagdevi St., Bombay 400003.

Tamil Nadu

Devon Plastics, Dhun Bldg., 175/1, Mount Rd., Madras 600002.
Paper, Film & Foil Converters, P.B. 6, Sivakasi 623501. Ramnad Dist.

Uttar Pradesh

Garg Plastics, 47/86, Hatia, Kanpur 208001.

West Bengal

Extrusion, P-38, India Exchange Place, Calcutta 700001.
India Burlap & Laminating Works, 10, Clive Row, Calcutta 700001.
Neptune Plastic & Metal Inds., 16, India Exchange Place, Calcutta 700001.
Polyfabs Ltd., 2, Pretoria St., Calcutta 700016.
Transpackers, Flat No. 401, 'Niharika', 17/1C, Alipore Rd., Calcutta 700027.

PLASTIC FABRICATION

Delhi

Fancy Plastic Moulders, Mayapuri Indl. Area, Phase II, New Delhi 110027.

Maharashtra

Airoplast Pvt. Ltd., C-40, 'Y' Rd., Wagle Indl. Est., Thane 400601.
Amar Plastics, 81, Clive Rd., Bombay 400009.
Artee Products, 2/2, Dwarkanath Bhuvan, Katrak Rd., Wadala, Bombay 400031.
Bombay Plastic Corpn., Elphinstone Bldg., 10, Churchgate St., Bombay 400001.
Bright Bros. P. Ltd., 156-A, J. Dadajee Rd., Bombay 400034.
Indian Plastics Ltd., P-oisar Bridge, Kandivli, Bombay 400067.
Jagdhir Desai & Co., 13, Gunbow St., Bombay 400001.
Jyoti Plastic Works, Bombay Talkies Comp., Hemansu Rd., Malad West, Bombay 400064.
K. K. Nag Pvt. Ltd., 23/5-A, Bund Garden Rd., Pune 411001.
Multicrafters, 31, M. G. Rd., Ghatkopar, Bombay 400080.
Plastika Enterprise, 120, Bapu Khote St., 1st Flr., Pydhonie, Bombay 400003.
Podar Plastics Pvt. Ltd., Podar Chambers, Parsee Bazar St., Bombay 400001.
Rainbow Products, Indl. Assce. Bldg., Churchgate, Bombay 400020.

Tamil Nadu

Coromandel Prodorite Ltd., Tiam House, 28, Rajaji Rd., Madras 600001.
Polyene Film Inds. Pvt. Ltd., B-17, Indl. Est., Ambattur, Madras 600058.

PLASTIC FOAM

Andhra Pradesh

U. Foam Pvt. Ltd., 8-15 16, Ind. Estate, Sanatnagar, Hyderabad 500018.

Delhi

Bharat Foam Udyog Pvt. Ltd., 49, Rajpur Rd., Delhi 110006.
J. J. Foam Pvt. Ltd., 224, Okhla Indl. Estate, New Delhi 110055.

Gujarat

Nu-Foam Inds., G.I.D.C. Estate, Shed A/2, Nos. 3 & 4, Vatva 382440. (Ahmedabad Dist.).

Karnataka

K. B. Foam Pvt. Ltd., 12, Bore Bank Rd., Bangalore 560046.

Maharashtra

Artbangle Pvt. Ltd., 204, National Insurance Bldg., Dr. D. Naoroji Rd., Bombay 400001.
BASF Ind. Ltd., Maybaker House, Ahire Mrg., Bombay 400025.

PLASTIC GOODS

Andhra Pradesh

Admark Plastics Pvt. Ltd., P2 & P3, Ind. Area, Nacharam, Hyderabad 500039.
Padma Plastic Inds., Kareemabad Rd., Warangal 506002.

Delhi

Pearl Polymers Pvt. Ltd., 27-A, Najafgarh Rd., New Delhi 110015.
Plastic House, 5255, Ballimaran St., Delhi 110006.
S. Mohd. Suabheen & Co., 824, Ballimaran St., Delhi 110006.

Gujarat

ABS Plastics Ltd., 6, B. Jadav Chambers, Ashram Rd., Ahmedabad 380009.
Anjna Ind. Corpn., Bharat Bobbins Premises, Opp. Ajit Mills Ltd., Rakhial Rd., Ahmedabad 380023.

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Parag Plastics Ind. Pvt. Ltd., 80, Makarpura Ind. Estate, P.B. No. 199, Vadodara 390009.

Maharashtra

Bharat Foam Industrial Pvt. Ltd., 9, Kitab Mahal, Dr. D.N. Rd., Bombay 400001.

Billion Plastics Pvt. Ltd., 221, N. Point, Bombay 400021.

Brahma Bharati Udyog, Green-House, Green St., Bombay 400023.

Bright Bros. P. Ltd., 156-A, J. Dadajee Rd., Bombay 400034.

Gehi Plastic Inds., 204, Allied Indl. Estate, Off M. M. C. Rd., Mahim, Bombay 400016.

General Plastics, Calicut House, 8, Tamarind St., Bombay 400023.

Malson Plastics, C/o Mahendra Bros., Shop 2, Pradhan Ukeda Bldg., M. G. Rd., Mulund West, Bombay 400080.

Milton Plastics, 202/203, Raheja Centre, N. Point, Bombay 400021.

Narichania Consultancy & Agency Pvt. Ltd., 22, Sir P. M. Rd., Bombay 400001.

New Mayur Plastics, 46-47, Kakad Indl. Estate, Off Lady Jamshedji Rd., Mahim, Bombay 400016.

Nilkamal Plastic & Allied Inds., 5, Rewa Chambers, New Marine Lines, Bombay 400020.

Prince Plastics, 312, Churchgate Chambers, 5, New Marine Lines, Bombay 400020.

Vinis Products, 43/44, Royal Ind. Estate, 5-B, Naigaum Cross Rd., Wadala, Bombay 400031.

Orissa

Kartik Enterprises Pvt. Ltd., B-20, Indl. Est., Cuttack 753003.

Tamil Nadu

Deluxe Plastics Products, 6B, N. M. Mudaliar Rd., Madras 600029.

Electro Plastic Combination, 65, N. M. Mudaliar Rd., Madras 600029.

Plastic Glass Enterprises, 15, Tatabad, 9th St., P.O. Tatabad, Coimbatore 641012.

Praga Inds. Ltd., Peelamedu, Coimbatore 641004.

Tiptop Plastic Inds. Pvt. Ltd., 25, Kasi Chetty St., Madras 600001.

West Bengal

Climax Plastic Udyog, 11, Pollock St., Calcutta 700001.

Delton Steel & Metal Ind., P-2, Dalimtola Lane, Calcutta 700006.

Emco Gen. Plastic Ind., P-35, C.I.T. Rd., Calcutta 700014.

High Volt Equipment Pvt. Ltd., Premier House, P-39, Mission Row Extn., Calcutta 700013.

Indar Plastic Works, 56/1, Canning St., Calcutta 700001.

Peerless Plastics Ind. Pvt. Ltd., 4, Upper Chitpur Rd., Calcutta 700007.

Plastics Enterprises, 38, Strand Rd., Calcutta 700001.

Polymers (India) Pvt. Ltd., 10, Mall Rd., Dum Dum, Calcutta 700028.

Ratan Plastics Pvt. Ltd., 43/1, Strand Rd., Calcutta 700001.

Synthetic Moulders Ltd., 16, N. Subhas Rd., Calcutta 700001.

Techno Rubber & Plastic Works, 14, Chandni Chowk St., Calcutta 700001.

PLASTIC HOSES

Billion Plastics Pvt. Ltd., 221, Nariman Point, Bombay 400021.

PLASTIC INJECTION MOULDINGS

Andhra Pradesh

Plastic Engg. Components Pvt. Ltd., D/8-9, Govt. Ind. Estate, Moula Ali, Hyderabad 500040.

Delhi

Aarcee Plastic & Metal Ind. Pvt. Ltd., D-8, Nizamuddin (W), New Delhi 110013.

Bright Distributors, Swadeshi Market, Sadar Bazar, Delhi 110006.

Chawla Plastic Works Pvt. Ltd., A-4, Mayapuri, Phase I, New Delhi 110064.

Fancy Plastic Moulders, 104 A, Phase II, Mayapuri, Delhi 110027.

Rapid Engg. Co. Pvt. Ltd., 112, New Okhla Indl. Complex, Phase I, N. Delhi 110020.

Sindhu Plastic Containers, A-61/1, G. T. Karnal Rd., Indl. Area, Delhi 110033.

Goa

Goa Plast Pvt. Ltd., Vello Bldg., Panaji 403001.

Gujarat

Hindustan Polythene & Plastic Works, Indl. Area, Yamuna Mill Rd., Vadodara 390004.

Kaj Ind., Plastic House, Udyognagar, Udhna 394210.

Ranco Plastics, 'Shrinath Prasad', Takhteswar Plots, Bhavnagar 364001.

Sinter Plast Containers, Kalol 382721.

Jammu & Kashmir

Kashmir Plastic Inds., Polo View, Srinagar 190001.

Karnataka

Kaveri Plastic Pvt. Ltd., Morzaria Ind. Estate, Unit F, Shed No. 2, 4, Bannerghatta Rd., Bangalore 560029.

Plasticana, 63, 2nd Stage, Indl. Suburb, Tumkur Rd., Bangalore 500022.

Kerala

Common Facility Service Centre, Ind. Estate, Changanacherry 686104.

Madhya Pradesh

Acrocast, F9, Ind. Estate, Polo Ground, Indore 452003.

Ahuja Ind. Co., G. E. Rd., Opp. D. K. Hospital, Raipur 492001.

Jai Plastic Ind., 4-A, Ind. Estate, Raipur 492001.

Maharashtra

Amartara Plastics Pvt. Ltd., Saki Vihar Rd., Bombay 400072.

Arora Plastics Pvt. Ltd., Deonar, Govandi Station Rd., Bombay 400088.

Ashok Plastics, 67, Ideal Ind. Estate, Mathuradas Mills Comp., Lower Parel, Bombay 400013.

Bien Plastics, Paragon Textile Mills Comp., Globe Mills Passage, Worli, Bombay 400018.

Comet Corpn., 446, S. V. Patel Rd., Seksaria Bldg., Bombay 400004.

Dynamic Plastics Pvt. Ltd., 91, Tejpal Rd., V. Parle (E), Bombay 400057.

Elegant Inds. Pvt. Ltd., Udyog Bhavan, 250-D, Worli, Bombay 400025.

Endo Plastic Pvt. Ltd., A-21, Nand Dham Indl. Est., Andheri (E), Bombay 400059.

Everest Plastic Ind., Bajaj Bhavan, Nariman Pt., Bombay 400021.

Exen Ind., Parekh Nagar, Ghodbunder Rd., Kandivli (B.S.D.), Bombay 400067.

Formacators, 20, Evergreen Ind. Estate, Dr. E. Moses Rd., 2nd Fl., Mahalaxmi, Bombay 400011.

Gemini Plastic Ind., 3-A, Krishna Udyog Bhuvan, Dhuruwadi, Near Bengal Chemicals, Bombay 400025.

Gujarat Ind. Pvt. Ltd., Vishveshwarnagar, Goregaon (E), Bombay 400063.

Harrison & Co., 23/25, Paradise Lane, L. Jamshedji Rd., Mahim, Bombay 400016.

Indian Plastics Ltd., Poisar Bridge, Ghodbunder Rd., Kandivli, Bombay 400067.

J. L. Morrison Son & Jones (I) Ltd., Poisar, Kandivli, Bombay 400067.

Jaisingh Plastics Ind., 3rd Bhoiwada, Bhuleshwar, Bombay 400002.

Jamsar Engg. Works, Laxmi Woollen Mills Estate, Haines Rd., Mahalaxmi, Bombay 400011.

Jayesh Plastics, 112 A-B, Govt. Ind. Estate, Kandivli, Bombay 400067.

Jyoti Plastic & Allied Ind., Plot No. 49, A/B, Govt. Ind. Estate, Bombay 400067.

K. K. Nag Pvt. Ltd., 2/362, Bund Garden Rd., Pune 411001.

Kings Plastics, Block No. 7, Devkaran Mansion, 34, Vithaldas Rd., Bombay 400002.

Krishna Plastics, 139, Nagindas Master Rd., Bombay 400001.

M. K. Plastics Ind., 112, Kakad Ind. Estate, Bombay 400016.

Maniar Plastics Ind., 63, 3rd Bhoiwada, Bombay 400002.

Meenul Metallizing Pvt. Ltd., 1076, Haines Rd., Worli, Bombay 400018.

Modella Plastics, 167, C.S.T. Rd., Kalina, Bombay 400029.

Motco Plastics, 13-B, Kurla Ind. Estate, Agra Rd., Ghatkopar, Bombay 400086.

Nilkamal Plastic & Allied Inds., 5, Rewa Chambers, New Marine Lines, Bombay 400020.

P.S. Plastic Inds., Plot No. A/10, M.I.D.C. Indl. Area, Marol Cross Rd., St. No. 5, MIDC., Andheri East, Bombay 400093.

Phiroze Sethna Ind., Royal Insurance Bldg., 14, J. Tata Road, Bombay 400020.

Pla-Age Inds., 307/308, Sharda Chambers, 15, New Marine Lines, Bombay 400020.

Plastica, 94, Vithalwadi, Kalbadevi Rd., Bombay 400002.

Plastics Converters, National House, 6, Tulloch Rd., Bombay 400039.

Plastipeel Chemicals & Plastic Pvt. Ltd., Kripalani Est., Saki-Vihar Rd., Bombay 400072.

Plastocrafts Inds. Pvt. Ltd., Apte Est., 1076, Dr. E. Moses Rd., Worli Naka, Bombay 400018.

Polyplastics Corpn., 105-106, A-Z, Indl. Estate, G. Kadam Mrg., Lower Parel, Bombay 400013.

Rajpal Plastics Ind., 303, Neelkanth, 98, Marine Drive, Bombay 400002.

Simac Group (I) Pvt. Ltd., Plot No. B-72, Rd. No. 33, W.I. Estate, Thane 400604.

Sona Plastics Pvt. Ltd., 109, S. A. Brelvi Rd., Podar Chambers, Bombay 400001.

Supreme Inds., 17/18, Shah Ind. Estate, Veera Desai Mrg., Andheri West, Bombay 400058.

Trinity Plastics, 238, Nagdevi St., Bombay 400003.

United Enterprises, 340/341, A to Z Ind. Estate, Fergusson Rd., Bombay 400013.

Universal Corpn., 7, Udyognagar, Gala No. 104, 1st Flr., S.V. Road, Goregaon West, Bombay 400062.

V. K. Engg. & Plastics Ind., Western India House, Sir P. Mehta Rd., Bombay 400001.

Vinal Ind., 23, Sidhpura Ind. Estate, S. Vivekanand Rd., Goregaon, Bombay 400062.

Tamil Nadu

Bhupendra Plastic Ind., 20, Singara Garden Third Rd., Washermanpet, Madras 600021.

Govel Plastics Pvt. Ltd., 5/9, Veerabhadraier St., Nungambakkam, Madras 600034.

Indian Polythene Ind., 17, Ramanan Rd., Madras 600001.

National Products, 28, B. P. Mudali St., Mount Rd., Madras 600002.

Pandiyan Plastic Inds., 33, West Avani Moola St., Madurai 625001.

Plasticraft Inds., 45, Velacherry Main Rd., Madras 600042.

Sree Ambika Inds., 49/A, Mettupalayam Rd., Coimbatore 641030.

Uttar Pradesh

Bihani Ind., 30-B, Indl. Colony, Naini, Allahabad 211008.

West Bengal

Hind Plastic Works Pvt. Ltd., 16, Pageyputty St., Calcutta 700001.

Mahabir Plastic Ind., 6, Canal Rd., New Alipore, Calcutta 700033.

Pioneer Plastic Works Pvt. Ltd., 9, Ezra St., Calcutta 700001.

Plastic Mouldings & Allied Ind., 135, Park St., Calcutta 700017.

Pradip Plastic Moulders, 12-B, Rabindra Sarani, North Block, Calcutta 700001.

Spritz Automation (India) Pvt. Ltd., 140, A. Mukherjee Rd., Calcutta 700025.

Synthetic Moulders Ltd., 43, N. Subhas Rd., Calcutta 700001.

Universal Moulders, 4, Canal Rd., New Alipore, Calcutta 700053.

Western Plastics Co., 9, Gurusaday Rd., Calcutta 700019.

PLASTIC LAMINATION

Andhra Pradesh

Bakelite Hylam Ltd., Sanatnagar, Hyderabad 500018.

Gujarat

Duck Lemiplast, C/B, Plot No. 463, G.I.D.C. Makarpura Ind. Est., Vadodara 390009.

Melamine & Fibre Boards Ltd., Dr. Ambedkar Rd., Kalol 382721.

Wood Polymer Ltd., Mahatma Gandhi Rd., Bilimora 396321.

Madhya Pradesh

Lamina Ind. Pvt. Ltd., 21, Ind. Estate, Polo Ground, Indore 452001.

Maharashtra

ABC Synthetics Pvt. Ltd., 324, Arun Chambers, Tardeo Rd., Bombay 400034.

Caprihans (I.) Pvt. Ltd., Block 'D', Shivsagar Estate, Dr. A. Besant Rd., Bombay 400018.

Formica India Ltd., P.B. 64, Pune 411001.

Industrial Fabrics Pvt. Ltd., 95, A. Rehman St., Bombay 400003.

International Packaging, 250-B, Worli Rd., K. D. Compound, Bombay 400025.

Uttar Pradesh

Indian Coating & Laminating Corpn., 31, Factory Area, Kanpur 208012.

West Bengal

India Burlap & Laminating Works, 10, Clive Rd., Calcutta 700001.

Plastic Lamination Co., 8, Locke Gate Rd., Calcutta 700002.

PLASTIC LEATHER CLOTH

Delhi

Neo Poly Pack Pvt. Ltd., E-2, Greater Kailash, New Delhi 110048.

Karnataka

Varma Industrials Ltd., 5th Mile, Domlur Rd., Bangalore 560017.

Maharashtra

Asian Leather Cloth Mfg. Co., Manohar Indl. Est., Malad, Bombay 400064.

Bhor Inds. Ltd., 10, Bombay Samachar Marg, Bombay 400023.

Billion Plastics Pvt. Ltd., 221, N. Point, Bombay 400021.

Caprihans (India) Pvt. Ltd., Block-D, Shivsagar Estate, Dr. A. Besant Rd., Worli, Bombay 400018.

Dharampur Leather Cloth Co. Pvt. Ltd., 10, Chowpatty Sea Face, Opp. Tilak Statue, Bombay 400007.

Ellora Ind., 15, Tulsi Niwas, D. Rd., Churchgate, Bombay 400020.

Jyoti Leather Cloth Inds. Pvt. Ltd., Udyognagar, S. Vivekanand Rd., Goregaon West, Bombay 400062.

Mamaji Ind. Corpn., Atlas Mills Compd., Reay Rd., Bombay 400010.

National Leather Cloth Mfg. Co., Akurli Rd., Kandivli (E), Bombay 400067.

Polytex Ind., 5, Kurla Ind. Estate, L. B. S. Mrg., Ghatkopar, Bombay 400086.

Radhakrishna Ramnarain Pvt., Ltd., State Bank Bldg., Bank St., Bombay 400023.

West Bengal

East India Rubber Works Pvt. Ltd., 161, Chittaranjan Ave., Calcutta 700007.

PLASTIC MACHINERY

Alfred Herbert India Ltd., 13/3, Strand Rd., Calcutta 700001.

Allied Rubber & Plastics Pvt. Ltd., 1019, Hathras Rd., Agra 282006.

Boolani Engg. Corpn., Prabhadevi Ind. Estate, 402, V. Savarkar Marg, Bombay 400025.

Brimco Plastic Machinery Pvt. Ltd., 55, Govt. Ind. Estate, Kandivli West, Bombay 400067.

Engel India Machines & Tools Ltd., 1, Taratala Rd., Calcutta 700053.

Gee Kay Plastics Pvt. Ltd., 21/1, Mahalaxmi Indl. Est., Gandhi Nagar, Lower Parel (W), Bombay 400013.

Goyal Electronics Ind., 319, Prasad Chambers, Opera House, Bombay 400004.

Hindustan Machine Tools Ltd., 36, Cunningham Rd., Bangalore 560052.

Indian Hydraulic Ind., 70, Shivaji Marg, New Delhi 110015.

Jashvant C. Shah & Co., Bharati Nivas, Besant Rd., Santacruz West, Bombay 400054.

Juneja Engineering Works, A-36, M.I.D.C. Ind. Area, St. No. 2, Andheri (East), Bombay 400093.

Kolsite Ind., 31, Shah Ind. Estate, Bombay 400058.

Monga Electronics Pvt. Ltd., Arun Bazar, S. V. Rd., Malad West, Bombay 400064.

Novel Engrs. Pvt. Ltd., Sambava Chambers, Sir P. Mehta Rd., Bombay 400001.

Pioneer Engg. Co., 57, Bombay Samachar Mrg., Bombay 400023.

Pioneer Mfg. Corpn., 41, Veera Dalvai Ind. Estate, S. V. Rd., Bombay 400060.

Polycoat Inds., 316, Linghi Chetty St., Madras 600001.

Proclex Machinery Co., 16, 4th Main Rd., Gandhinagar, Adyar, Madras 600020.

R. H. Windsor (India) Ltd., E-6, Wagle Ind. Estate, Thane 400604.

Sandhu Mechanical Engg. Works, 32, Indl. Area 'A', Ludhiana 141003.

Shiv Ganga Inds., 16, Najafgarh Rd., New Delhi 110015.

Simsons & Martin Machinery Mfrs. (India) Pvt. Ltd., 1, Tripathi Balaji, 14th Rd., Khar, Bombay 400052.

S.L.M. Maneklal Ind. Ltd., Reid Rd., Ahmedabad 380002.

Solar Machines Pvt. Ltd., 22-D, S.A. Brelvi Road, Bombay 400001.

Spritz Automation (India) Pvt. Ltd., 140, A. T. Mukherjee Road, Calcutta 700025.

Universal Mechanical Works Pvt. Ltd., Off Fergusson Rd., Opp. B.D.D. Chawl No. 112, Bombay 400013.

PLASTIC MOULDS

Gujarat

Bakubhai Ambalal Pvt. Ltd., Bank of India Bldg., Bhadra, Ahmedabad 380001.

Hinet Brothers, Ind. Estate Corner, Bapunagar, Ahmedabad 380021.

Maharashtra

Accurate Moulds & Dies, United Industrial House, Shanti Nagar, Vakola, Bombay 400055.

Kalimata Plastic Ind., 205, Wadala Udyog Bhuvan, Naigaum Cross Road, Wadala, Bombay 400031.

L.W. Plastic Moulders, 506, Sir Vithaldas Chambers, 15, Bombay Samachar Mrg., Bombay 400023.

Niranjan Plastics, 19/7, Botawala Bldg., S.D.T. Road, Bombay 400016.

Plastic Engg. Corpn., 14-A, Sainath Ind. Estate No. 2, Off Aarey Road, Goregaon E., Bombay 400063.

Sheth & Sheth Ind., Janmabhoomi Chambers, Fort Street, Bombay 400001.

Suji Plastic Moulds & Die Works, Shantinagar Co-op. Indl. Est., Vakola, Santa Cruz, Bombay 400055.

PLASTIC PRESENTATION NOVELTIES

Delhi

Chanson Plastic Mfg. Co., 1/104, Panch Sheel Enclave, New Delhi 110017.

Gujarat

Tip-O-Plast, 292, G.I.D.C. Estate, Makarpura, Vadodara 390005.

Karnataka

Paxal Corpn., No. 13, Sri Krishnarajendra Road, Fort, Bangalore 560002.

Tip-Top Plastic Ind., 124, Kilari Road, Balepet, Bangalore 560053.

Maharashtra

Bharat Pen & Plastic Ind., Jagruti Indl. Estate, Moghal Lane 1, Bombay 400016.

Bright Brothers Pvt. Ltd., 156-A, J. Dadajee Road, Bombay 400034.

Hemu Plastics, Unit No. 31, Sona Udyog Estate, Parsi Panchayat Rd., Andheri East, Bombay 400069.

Hiroo Mfg. Co., 93, Bhajipala Lane, Bombay 400003.

S. L. Trading Co., 236A, Maulana Azad Rd., Bombay 400008.

Sil & Pack Inds., 233-A, Adarsh Indl. Estate, Chakala Sahar Rd., Andheri East, Bombay 400099.

Zephyr Leather Works, 396/402, Sheikh Memon St., Bombay 400002.

West Bengal

Industrial Trading Agency, 27-B, Chittaranjan Avenue, Calcutta 700013.

Orissa Plastics, 40, Strand Road, Calcutta 700001.

PLASTIC RAW MATERIAL SUPPLIERS

(Moulding Powder, Sheets, Rods, Tubes & Chemicals).

Gujarat

Cibatul Limited, Atul 396020. Valsad Dist.

Suhrid Geigy Ltd., P.B. 48, Wadi Wadi, Vadodara 390005.

Synthetics & Polymer Ind., S-2, Bapunagar Ind. Estate, Ahmedabad 380023.

Haryana

Acropolymers Pvt. Ltd., Khandsa Rd., Gurgaon 122001.

Crystic Resins India Pvt. Ltd., 54, Ind. Area, Faridabad 121001.

Karnataka

Mysore Polymers, Shed No. E/10, Ind. Estate, Ramanagaram 571511. Bangalore Dist.

Maharashtra

Allied Traders (Ind.), 169, Masjid Bunder Road, Bombay 400003.

Amritlal & Co. Pvt. Ltd., Rang Udyan, Sitladevi Temple Road, Mahim, Bombay 400016.

Bakelite Hylam Ltd., Tiecicon House, 18, Dr. E. Moses Road, Bombay 400011.

Bayer (I.) Ltd., Express Towers, Nariman Point, Bombay 400021.

Chowgule & Co. Hind Pvt. Ltd., India House, Fort St., Bombay 400001.

Ciba of India Ltd., Royal Insurance Bldg., 14, J. Tata Road, Bombay 400020.

Dr. Beck & Co. (Ind.) Ltd., Bombay-Poona Road, Pimpri, Pune 411018.

Everbright Industries, 82, Bapu Khote St., Bombay 400003.

General Pigment & Chemical Products Pvt. Ltd., Vihar Lake Road, Saki Naka, Bombay 400072.

H. S. Sobha Singh & Sons, Nagin Mahal, Nariman Rd., Bombay 400020.

Harshadray Pvt. Ltd., Jiji House, Raveline Street, Bombay 400001.

Herdillia Chemicals Ltd., Air India Bldg., Nariman Point, Bombay 400021.

Hoechst Dyes & Chemicals Ltd., Hoechst House, Backbay Reclamation, Bombay 400021.

India Carbon Ltd., Shivsagar Estate, Dr. A. Besant Road, Worli, Bombay 400018.

Indian Plastics & Chemicals Pvt. Ltd., 9, Wallace Street, Bombay 400001.

Indofil Chemicals Ltd., Nirlon House, Dr. A. Besant Road, Worli, Bombay 400025.

Mettur Beardsell Ltd., 15/16, Sir P. Mehta Road, Bombay 400001.

Mitter & Co., Mapla Bldgs., 187-A, A. Rehman St., Bombay 400003.

Monsanto Chemicals of India Pvt. Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 400038.

National Organic Chemical Ind. Ltd., Mafatlal Centre, Nariman Point, Bombay 400021.

Nitin Inds., 70, Kazi Syed St., Bombay 400003.

Plastichemicals Co., Mahalakshmi Chambers, B. Desai Road, Bombay 400026.

Plastipeel Chemicals Corpn., Kripalani Estate, Saki Vihar Road, Bombay 400072.

Polychem Ltd., 7, J. Tata Road, Churchgate Recl., Bombay 400020.

Polyolefins Ind. Ltd., Mafatlal Centre, Nariman Point, Bombay 400021.

Sanghavi Brothers, Rahmat Bldg., 52, A. Rehman Street, Bombay 400003.

T. T. Krishnamachari & Co., Vulcan Insurance Bldg., 202-A, V. Nariman Road, Bombay 400020.

Union Carbide India Ltd., Ind. Products Division, 15, Mathew Road, Bombay 400004.

Tamil Nadu

Shriram Fibres Ltd., Thiru Bldg., 3rd Flr., 160, Greames Rd., Madras 600006.

West Bengal

Allied Resins & Chemicals Ltd., 13, Camac Street, Calcutta 700016.

East Anglia Plastics (India) Ltd., 3, Camac Street, Calcutta 700016.

Plastic Powders Pvt. Ltd., 1, A. Mukherjee Road, Belgharia 700056. 24-Parganas.

Waldies Ltd., A-1, Gillander House, N. Subhas Road, Calcutta 700001.

PLASTIC SHEETS—METALLISED, ETC.

Acro Pearl Agencies, 67/69, Mohamedali Rd., Dada Manzil, Bombay 400003.

Chemicoat Ltd., Kalab Rd., P.O. Atladara, Vadodara 390003.

Jobshan Inds., 39, Govt. Ind. Estate, Kandivli West, Bombay 400067.

Nippon Polymers Pvt. Ltd., Trupti Apartments, Behind High Court, Ahmedabad 380009.

Plastika Enterprise, 120, Bapu Khote St., Bombay 400003.

Sakhi Inds., Plot 33-A, Indl. Estate, Tifra, Bilaspur 495001. (M.P.).

Vac Met Corpn., Pvt. Ltd., Damodar Udyog Kendra, Udhna Udyog Nagar, Udhna 394210.

PLASTIC VACUUM FORMING

Poona Complast Pvt. Ltd., Plot No. 72, D-III, M.I.D.C. Indl. Estate, Chinchwad, Pune 411019.

Vacuum Forming Co., 3-21, Prabhadevi Ind. Estate, 402, V. Savarkar Marg, Bombay 400025.

Visco Enterprise, 31, Shreenath Ind. Estate, Mahakali Caves Road, Andheri East, Bombay 400093.

PLASTICIZERS

Alta Laboratories Pvt. Ltd., Alta Bhavan, 532, Senapati Bapat Marg, Dadar, Bombay 400028.

Amines & Plasticizers Ltd., D Bldg., Shivsagar Estate, Dr. A. B. Road, Worli, Bombay 400018.

Indo-Nippon Chemical Co. Ltd., Maker Bhuvan, New Marine Lines, Bombay 400020.

Simon Chemical Inds. Ltd., Stephen House, 5th Flr., 4, B.B.D. Bagh East, Calcutta 700001.

Singh Plasticisers & Resins India Pvt. Ltd., 117-B, Arjun Nagar, New Delhi 110029.

PLAYING CARDS

Bright Mfg. Co., 14-A, Tank Bunder Rd., Bombay 400010.

Hindustan Playing Cards Mfg. Co., C.S.T. Road, Kalina, Bombay 400029.

Laxmi Playing Cards Mfg. Co., 23, Goa Street, Bombay 400001.

Metro Playing Cards Co., Metro Estate, Central Salsette Track Road, Kalina, Bombay 400029.

Parksons Printers, Ind. Est., Lalbaugh, Bombay 400012.

Popular Fine Art Litho Works Pvt. Ltd., 133-C, Vakola, Santa Cruz East, Bombay 400055.

PLYWOOD PRODUCTS

Abjeejay Agencies Pvt. Ltd., 61, Muktaram Babu Street, Calcutta 700007.

Andaman Timber Inds. Ltd., 26, Chittaranjan Ave., Calcutta 700012.

Arunachal Saw & Veneer Mills P. Ltd., 5, Fancy Lane, Calcutta 700001.

Assam Forest Products Pvt. Ltd., Adex House, 6, Rampart Row, Bombay 400023.

Balaji Metal & Plywoods, Devraj Bldg., S. V. Road, Goregaon West, Bombay 400062.

Bharat Plywood & Timber Products Pvt. Ltd., Fort Road, Cannanore 670001. (Kerala).

Central Plywood Agency, 53, C. R. Ave., Calcutta 700012.

Dadar Plywood, Anandsagar, Opp. Nanavati Girls School, Vallabhbhai Rd., V. Parle West, Bombay 400056.

Free India Plywood Co., Cheruvannur, Feroke, Calicut 673631. (Kerala).

Godavari Plywoods Ltd., 6-3-1186/11, Greenlands Rd., Begumpet, Hyderabad 500016.

Himalayan Plywood Inds. Ltd., Tinsukia 786125. (Assam State).

Hunsur Plywood Products Ltd., P.B. No. 2, Hunsur 571105. (Karnataka).

Indian Plywood Mfg. Co. Ltd., 9, Wallace St., Bombay 400001.

Indian Plywood Mfg. Co. Ltd., Dharwar 580007.

Indian Plywood Mfg. Co. Ltd., Akber House, 151, Broadw Madras 600001.

Kachwalla Brothers, 122/24, A. Rehman St., Bombay 400003.

Kanara Wood & Plywood Inds., Jeppu, Mangalore 575002.

Kerala Wood Inds. Ltd., 'Karunalayam', Wynad Rd., Calicut 673001.

Maklai Timber & Plywood Co., 79, Ghogari Mohalla, Bombay 400003.

Malabar Plywood Works, Feroke, Calicut 673631. (Kerala).

Meghalaya Plywoods Ltd., Bara Bazar Road, Shillong 793002. *Branches:* 453, C.I.T. Scheme, Calcutta 700029; Pinto Villa, R.B.S.K. Bole Road, Dadar, Bombay 400028.

Mysore Chip Boards Ltd., 13-D, Gokulam Rd., V.V. Mohalla, Mysore 570002.

Mysore Plywood Corpn., 76, Ismail Curtey Road, Bombay 400003.

Mysore Plywoods Ltd., Post Box No. 2276, Yeshwantpur, Bangalore 560022.

Nagaland Forest Products Ltd., Tijit. Mon Dist. 798621. (Nagaland).

National Plywood Inds. Pvt. Ltd., 5, Fancy Lane, Calcutta 700001.

Noordin Ebrahim & Co., 119, Bazargate St., Bombay 400001.

Om Parkash Fateh Chand Pvt. Ltd., 7/7, D.B. Gupta Road, Paharganj, New Delhi 110055.

Orient Plywood & Veneering Inds. Ltd., 34-B, Jolly Maker Chambers II, Nariman Point, Bombay 400021.

Orissa Composite Boards Ltd., Plot K/6, B. J. B. Nagar., Bhubaneswar 751014. (Orissa).

Plyboards India, 26B, Camac St., Calcutta 700016.

Plyking, 44, Chittaranjan Ave., Calcutta 700012.

Plywood Emporium, 61, C. R. Avenue, Calcutta 700012.

Polyformalin Pvt. Ltd., Lamina, Banerji Road, Cochin 620018.

Purushotham Goculdas Plywood Co., Purushotham Goculdas Bldg., Cannanore 670001. (Kerala).

Ram & Co., Pinto Villa, R.B.S.K. Bole Rd., Dadar West, Bombay 400028.

Saharia Krishi Prathisthan Ltd., Ador House, 6, Rampart Row, Bombay 400023.

Sarda Plywood Inds. Ltd., 9, Parsee Church St., Calcutta 700001.

Sitapur Plywood Mfrs. Ltd., Post Box No. 6, Sitapur 261001. (U.P.).

South India Plywood Inds., Post Box No. 55, Kottayam 686001. (Kerala).

Southern India Plywood Co., Peramannur, Mangalore 574159.

Southern Veneers & Woodworks Ltd., Post Box No. 35, Tellicherry 670101. (Kerala).

Sudarshan Plywood Inds., Bharat Chamber Bhavan, 399, Kalbadevi Rd., Bombay 400002.

Sudershan Timbers, Jadav Bhuvan, Near Hotel Shaan, 62-B, August Kranti Mrg., Bombay 400036.

Sylvan Plywood Mills, Post Box No.1, Kallattumkara, Trichur 680683. (Kerala).

Synthetic Plywood Inds. Pvt. Ltd., B-4, Ind. Estate, Uppal, Hyderabad 500039.

Travancore Plywood Inds. Ltd., Punalur 691305. (Kerala State).

Varat Timber Assam Pvt. Ltd., Tinsukhia 786125. (Assam State).

Venus Plywood Co., P.O. Nemmara, Palghat 678508. (Kerala).

Western India Plywoods Ltd., Mill Road, P.O. Baliapatam, Cannanore 670010. (Kerala).

Wood Craft Products Ltd., 9/1, R.N. Mukherjee Rd., Calcutta 700001.

Woodcrafts Assam, Lal Dwara Bldg., New Link Rd., Jhandewalan, New Delhi 110055.

PNEUMATIC TOOLS & EQUIPMENT

Advance Automation & Process Control Pvt. Ltd., B-55, Mayapuri, Phase 1, New Delhi 110064.

Baker Horstmann Mercer (I) Ltd., Nagar Road, Pune 411014.

Concord Controls Pvt. Ltd., 15, Nichaldas Mkt., Chembur, Bombay 400071.

Consolidated Pneumatic Tool Co. (India) Ltd., 301/302, L.B. Shastri Marg, Mulund, Bombay 400080.

Edicon Mining Equipment, Guru Gobind Singh Ind. Estate, Unit 12, Off W. Express Highway, Goregaon (E), Bombay 400063.

Electro Zavod (India) Pvt. Ltd., 19/1B, Keyatala Rd., Calcutta 700029.

Electropneumatics, Plot 11/72, Cross Rd., C', MIDC, Marol Indl. Estate, M. Caves Rd., Bombay 400093.

Hardware & Pneumatics, 30, Strand Rd., Calcutta 700001.

Holman & Climax Mfg. Co., Dolphin Court, 7A, Middleton St., Calcutta 700071.

IEC Pumps & Tools Pvt. Ltd., 603, Sadashiv Peth, Laxmi Rd., Pune 411030.

Industrial & Mining Tools Co., 30, Chittaranjan Ave., Calcutta 700012.

Jenco Valves Mfg. Co., C-1, Udyog Sadan No. 1, MIDC, Andheri East, Bombay 400093.

KJN Enterprises, 68A, New Empire Indl. Estate, Kondivita Rd., J. B. Nagar, Andheri East, Bombay 400059.

Nagarjuna Signode Ltd., Nagarjuna Hills, Panjagutta, Hyderabad 500004.

Nucon Inds. Pvt. Ltd., 88, Co-op. Indl. Estate, Balanagar, Hyderabad 500037.

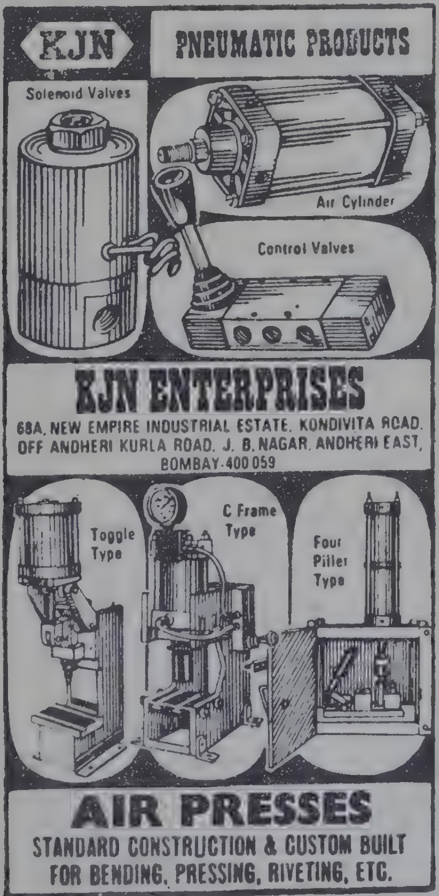
Rotex Mfrs. & Engrs. Pvt. Ltd., 213, Nav-Rattan, 69, P.D'Mello Rd., Bombay 400009.

Scientific Design & Engg. Co. Pvt. Ltd., 101, Jamuna Sagar, 59–60, S. Bhagat Singh Rd., Bombay 400005.

Shavo Norgren (India) Pvt. Ltd., 112-A, Meghdoot, 94, Nehru Place, New Delhi 110019.

Time Furnace Foundry Equipment Services, R/13, Jagdish Mkt., Abids, Hyderabad 500001.

Tomco Chemicals (Engg. Dn.), 105, Byculla Service Inds., Sussex Rd. X Lane, Bombay 400027.



KJN
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301/302, L. B. Shastri Marg, Mulund, Bombay 400 080.

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Manufacturers of :

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Branches :

Calcutta : 30, Jawaharlal Nehru Road, Calcutta 700 016.
Madras : 480 482, Mount Road, Nandanam, Madras 600 035.
New Delhi : 607 & 608, Eros Apartments, 6th Floor, 56, Nehru Place, New Delhi 110 019.
Jamshedpur : Flat No. N-2 K-5, Muneshwari Bhawan, Contractors' Area, Jamshedpur-1 (Bihar).
Bangalore : 244-A, VII Block, Second Main Road, Jaya Nagar, Bangalore 560 082.
Pune : Flat No. 3, 'Shamali Society', 120, Prabhat Road, Pune 411 004.
Chandigarh : 43 Sector 27-A, Chandigarh 160 019.

Volkskas Mercantile, 1-11-254/11/1, Satya Tulsi Gate, Begumpet, Hyderabad 500016.

Wintrol, 98/10A, Peenya Indl. Area, Bangalore 562140.

(Also see under 'Tools — Pneumatic' in this list.)

POLYESTER FABRICS

Anila Silk Inds., B-102, Tejpaul Indl. Estate, Andheri Kurla Rd., Saki Naka, Bombay 400072.

POLYESTER YARN

(See under Nylon & Polyester Filament Yarn in this list.).

POLYSTYRENE, POLYPROPYLENE & POLYFIBRES

Clarity Enterprise, Gantiwala Compd., Ashwanikumar Rd., Surat 395008. (Gujarat).

Cosmo Films Ltd., J-4, MIDC Indl. Area, CIDCO Colony, Chikalthana, Aurangabad 431003. (Maharashtra).

Harihar Polyfibres, Post Box 22, Harihar 577601 (Karnataka).

Hindustan Polymers Ltd., 264, A. Besant Road, Bombay 400025.

M.M. Rubber Co. Ltd., 133, Dr. A.B. Rd., Bombay 400018.

Mettur Beardsell Ltd., Dhannur, Sir P. M. Rd., Bombay 400001.

Neomar Ltd., Alembic Road, Vadodara 390003.

Stretch Fibres India Ltd., 20, Dr. E. Moses Road, Mahalaxmi, Bombay 400011.

Well-Packed Packaging Pvt. Ltd., 105/107, Abdul Rehman St., Bombay 400003.

POLYTHENE BAGS

Andhra Pradesh

Andhra Polythelane Ind., 5-5-689/2, Goshamahal, Hyderabad 500012.

Sanathnagar Polythene Ind., 15/6/490, Kamalkhan Devdi, Begum Bazar, Hyderabad 500012.

Delhi

Chanson Plastic Mfg. Co., I-104, Panchsheel Enclave, New Delhi 110017.

Hindustan Plastic Corpn., C-239, Mayapuri Indl. Area, Phase II, New Delhi 110027.

New Poly Pack Pvt. Ltd., C-9, Friends Colony, New Delhi 110014.

Rexco Industries (I.) Ltd., Expo Plastics, G-35, Gulabi Bagh, Delhi 110007.

Gujarat

Elite Plastic Co., 12A, Bharatkhand Cotton Mills Compound, Naroda Road, Ahmedabad 380001.

Hindustan Polythene & Plastic Works, Ind. Area, Yamuna Mill Rd., Vadodara 390004.

Parag Plastic Industries Pvt. Ltd., 80, Makarpura Ind. Estate, P.B. No. 199, Vadodara 390001.

Karnataka

Paxal Corpn., No. 13, Sri Krishnarajendra Road, Fort, Bangalore 560002.

Tiptop Plastic Industries, 124, Kilari Rd., Balepet, Bangalore 560002.

Maharashtra

Deekay International, 206, A to Z Indl. Estate, G. Kadam Mrg., Lower Parel, Bombay 400013.

Gaju Concern Plastic Inds., 258/9, Raviwarpeth, Solapur 413002.

Glosso Pack Industries, Laxmi Woollen Mills Compound, Haines Rd., Bombay 400011.

Hemal Polythene Inds., 61, Dontad St., Damargalli, Bombay 400009.

J. K. Plastic Works, 72, Nakhoda St., Bombay 400003.

J. M. Trading Co., 145, Samuel St., Bombay 400009.

Kalpana Plastic Ind., 20/2, Hadapsar Ind. Estate, Pune 411013.

Lalitkumar & Bros., 7/10, Botawala Bldg., Horniman Circle, Bombay 400023.

Maharashtra Plastic Industries, Subhas Nagar, Off Caves Road, Jogeshwari East, Bombay 400060.

Mangaldas Velji & Co., 135/139, Kazi Syed St., Bombay 400003.

Milan Inds., 20(4), Suryodaya Mills Compd., Tardeo, Bombay 400034

Narichania Consultancy & Agency Pvt. Ltd., P. B. No. 207-A, 22, Sir P.M. Road, Bombay 400001.

Oyatape Fibres Pvt. Ltd., Sunderbaug Estate, Bharat Silk Mills Compound, LBS Marg, Bombay 400070.

Pearl Thread Mills Ltd., Laxmi Bldg., 6, Shoorji Vallabhdas Marg, Bombay 400038.

Polyfab Plastic Ind., 121/127, Kazi Syed Street, Bombay 400003.

Polythene Inds., 17/21, Essaji St., Bombay 400003.

Polythene Printing & Sealing Works, 340, Girgaum Road, Bombay 400002.

Polyweave, 25/32, Kala Bhavan, 3, Mathew Rd., Bombay 400004.

Premco Plastics, D-14, Nandanvan Indl. Estate, Bombay Agra Rd., Thane 400604.

Ravi Corpn., Bussa Indl. Estate, Century Bazar Lane, Bombay 400025.

S.L. Trading Co., 236A, Maulana Azad Road, Bombay 400008.

Shree Mahalaxmi Trading Corpn., 198, Kalbadevi Road, Bombay 400002.

Tex International, B-15 & 22, Ansa Indl. Estate, Chandivali, Saki Vihar Rd., Bombay 400072.

Vora Bros., 115, S. Devji Street, Bombay 400003.

Tamil Nadu

Crystal Packs Pvt. Ltd., Sri Devikuppam Rd., Valasaravakkam, Madras 600087.

New Paramount Industries, 28, Buddi Sahib St., Madras 600001.

Oriental Plastics, 4, Singanna Naicken St., Madras 600001.

Polyene General Ind. Pvt. Ltd., 11A, Ind. Estate, Guindy, Madras 600032.

West Bengal

Bengal Polythene Bag Co., 55, Canning Street (Mehta Bldg.), Block E, Calcutta 700001.

General Extruders, 128, Hazra Rd., Calcutta 700026.

Indar Plastic Works, 56/1, Canning St., Calcutta 700001.

Lite Engg. Industries, 19, Pollock St., Calcutta 700001.

Magnitude Poly Films, 54/1, Canning St., Calcutta 700001.

Orissa Plastics, 40, Strand Rd., Calcutta 700001.

Plasto Craft Industries, 4, Synagogue St., Calcutta 700001.

Polymers India Pvt. Ltd., 10, Mall Rd., Dum Dum, Calcutta 700028.

Shree Uma Textile & Ind., 196, J. Bajaj St., Calcutta 700007.

POLYTHENE CONTAINERS

Glosso Pack Industries, Laxmi Woollen Mills Compd., B. Jagtap Mrg., Bombay 400011.

Gujarat Polythene Ind., 86, Sutar Chawl, Ghia Mansion, Bombay 400002.

Newlite Plastic Inds., 211, Nagdevi St., Bombay 400003.

Sinter Plast Containers, Plastics Divn., Bharat Vijaya Mills Ltd., Kalol 382721 (Gujarat).

POLYTHENE FILM

Andhra Pradesh

Sanathnagar Polythene Ind., 15-6-490, Kamalkhan Devdi, Begum Bazar, Hyderabad 500012.

Techno Pack Pvt. Ltd., Manchukonda Gardens, Visakhapatnam 530007.

Delhi

Rexco Ind., Expo Plastics, G-35, Gulabi Bagh, Delhi 110007.

Shivalik Agro-Poly Products Ltd., 16, Nizamuddin East, New Delhi 110013

Gujarat

D. R. Industries, Swaminarayan Godown, Outside Dariapur Gate, Ahmedabad 380001.

Himachal Pradesh

Shivalik Agro-Poly Products Ltd., Plot 1, Sector 111, Indl. Area, Parwanoo 173220. (Solan Dist.)

Karnataka

Karnataka Poly Products Ltd., Amargol, Hubli 580025.

Metro Polythene Mfrs., 35/5, Kalikadevi Rd. Davangere City 577001.

Mysore Plastic Industries, Mahaveer Rd., Bijapur 586101.

Maharashtra

Glosso Pack Ind., Laxmi Woollen Mills Comp., B. Jagtap Marg, Bombay 400011.

Marvel Ind. Corpn., Block No. 118, Kakad Ind. Estate, Mahim, Bombay 400016.

Modern Packagings, 201, Kalbadevi Rd., Bombay 400002.

National Plastic Enterprises, 105, Rewa Chambers, New Marine Lines, Bombay 400020.

Pearl Plastics, Laxmi Bldg., Ballard Rd., Bombay 400038.

Plastic Processors, Interlink Ind. Estate, Jogeshwari East, Bombay 400060.

Polymer Corpn., Kansara Chawl, Kalbadevi Rd., Bombay 400002.

Pratibha Plastic Ind., 18/A-2, Bombay Poona Rd., Pune 411003.

Shree Plastics, Happy-Colony, Kothrud, Pune 411029.

Supreme Inds. Ltd., 17/18, Shah Indl. Estate, V. Desai Rd., Andheri East, Bombay 400058.

Union Carbide India Ltd., 15, Mathew Rd., Bombay 400004.

United Plastics Corpn., 162, Tulsi Pipe Rd., Lower Parel, Bombay 400013.

Veejay's Trading Corpn., 49/51, Lohar Chawl, Bombay 400002

Tamil Nadu

Devon Plastics, Dhun Bldg., 175/1, Mount Rd., Madras 600002.

Oriental Plastics, 12, Singanna Naicken St., Madras 600001.

West Bengal

Alkali & Chemical Corpn. of India Ltd., 18, Strand Rd., Calcutta 700001.

Extrusions, P-38, India Exchange Place, Calcutta 700001.

General Extruders, 128, Hazra Rd., Calcutta 700026.

Orissa Plastics, 40, Strand Rd., Calcutta 700001.

Plasto Craft Ind., 4, Synagogue St., Calcutta 700001.

Polymers (India) Pvt. Ltd., 10, Mall Rd., Dum Dum, Calcutta 700028.

Shree Uma Textile & Ind., 196, J. Bajaj St., Calcutta 700007.

POLYTHENE PRODUCTS

Aasha Plastics, Shakti Mills Lane, Bombay 400011.

Basant Plasto Chemicals Pvt. Ltd., 201, Ansal Bhawan, K. Gandhi Mrg., New Delhi 110001.

Bisoplast & Polymers Pvt. Ltd., 3575, N. Subhas Mrg., Daryaganj, New Delhi 110002.

C.P. Shukla Pumps Inds. Pvt. Ltd., C1/82, GIDC, Degam Rd., Off Selvas Rd., Vapi 396195. (Gujarat).

Gautam Plastic & Inds., 328, Tifra Indl. Area, Bilaspur 495001. (M.P.)

Gita & Co., 205, Masjid Bunder Rd., Bombay 400003.

Jessore Comb Industry Co., 117, Baitha Khana Rd., Calcutta 700009.

Kerala Plastics Pvt. Ltd., P.O. Thammanam, Kuthapady, Cochin 682032.

Manika Plastichem Pvt. Ltd., Plot 5, Belavadi Indl. Estate, Hunsur Road, Bmbay 400001.

Narichania Consultancy and Agency Pvt. Ltd., P. B. No. 207-A, 22, Sir P. M. Rd., Bombay 400001.

Novel Engrs. Pvt. Ltd., Sambava Chambers, 4th Flr., Sir P.M. Road., Bombay 400001.

Orissa Plastics, G.T. Rd., Balasore 756001. (Orissa State).

Polyolefins Industries Ltd., Mafatlal Centre, Nariman Rd., Bombay 400021.

Shish Hari Enterprises, B-7, Anandi Indl. Estate, Bhayandar (East), Thane Dist.

Shree Mahalaxmi Trading Corpn., 198, Kalbadevi Rd., Bombay 400002.

Synthetic Fibres (Mysore) Pvt. Ltd., 14/1, J. C. Rd., Bangalore 560002.

PORCELAIN

(See 'Crockery' in this list).

P.V.C. CABLES & FLEXIBLES

Andhra Pradesh

Aradhna Electronics Pvt. Ltd., 62/A, M.G. Rd., Secunderabad 500003.

Radiant Engg. Co., Sanatnagar, Hyderabad 500018.

Ranka Cables Pvt. Ltd., Ind. Estate, Cuddapah 516001.

Delhi

Delton Cable Inds. Pvt. Ltd., Delton House, 24, Daryaganj, New Delhi 110002.

Moti Electrical Ind. Pvt. Ltd., 15-A, Najafgarh Rd., New Delhi 110015.

Premier Cable Co. Ltd., 14/15F, Conn. Place, New Delhi 110001.

Victor Cables Ltd., 410, New Delhi House, 27, Barakhamba Rd., New Delhi 110001.

Goa

Goa Cables, Post Box 187, Panaji 403001.

Gujarat

Cema Ltd., Opp. D Cabin, Chhani Rd., Vadodara 390002.

Parekh Electra Wire Inds. Pvt. Ltd., C-3/4, GIDC Estate, Nadiad 387001.

Raj Plastic Cables, L162 & 163, GIDC Indl. Estate, Odhav, Ahmedabad 382415.

Slydex Ind., B-3, B-4, Real Estate Co., Near Nagerwal Hanuman, Rakhial Rd., Ahmedabad 380023.

Special Cable Inds., A-1/404, GIDC Indl. Estate, Ankleshwar 393001.

Kerala

Premier Cable & Co. Ltd., Karukutty 683576. Ernakulam Dist.

Maharashtra

Asian Cables Corpn. Ltd., Nirmal, 9th Flr., N. Point, Bombay 400021.

Associated Cables Pvt. Ltd., 2, Raote Bldg., 85-A, Girgaum Rd., Bombay 400004.

Bharat Inds., 215, Champaklal Ind. Estate, Sion East, Bombay 400022.

Bhupendrakumar & Co., P.B. 2066, Lohar Chawl, Bombay 400002.

Billion Plastic Pvt. Ltd., 221, Nariman Point, Bombay 400021.

Cable Corpn. of India Ltd., Laxmi Bldg., 6, Ballard Rd., Ballard Estate, Bombay 400038.

Dugar Inds., A-5, Electronic Estate, Bhosari, Pune 411026.

Fincab Corpn., 104, Mani Mahal, Mathew Rd., Bombay 400004.

International Cable Corpn., 32, Vithaldas Rd., Lohar Chawl, Bombay 400002.

Jain Industries, 30/2, Singh Indl. Estate, Ram Mandir Rd., Goregaon West, Bombay 400104.

Kaysons Cable Industries, Kaysons House, Hind Saurashtra Indl. Estate, Marol, Andheri Kurla Rd., Bombay 400059.

M & S Power Engrs. Pvt. Ltd., 30, Singh Ind. Estate No. 2, Ram Mandir Rd., Off S.V. Rd., Goregaon W, Bombay 400082.

Metaplast Inds., C-6/6A, 13, Ghatkopar Indl. Estate, Bombay 400086.

Noble Electricals, Mani Bhuvan, Ist Flr., 9/19, Pathak Wadi, Lohar Chawl, Bombay 400002.

Plastic Extrusion Products, 543, Kalbadevi Rd., Bombay 400002.

Ravin Trading Co., 5, Mohatta Mkt., Palton Rd., Bombay 400001.

Thakur Inds., Ismail Bldg., Lohar Chawl, Bombay 400002.

Thermo Plastic Inds., 78, Kalachowki Rd., Bombay 400033.

Trinity Electric Syndicate, 154, S. Gandhi Mrg., Bombay 400002.

Udey Cables, Dina Bldg., 53, M. Karve Rd., Bombay 400002.

Udey Pyrocables Ltd., 167, Dr. A. Besant Rd., Worli Naka, Bombay 400018.

Punjab

Alcon Wires & Cables Inds., 27-A, Focal Point, Rajpura 140401.

Tamil Nadu

Inca Cables Pvt. Ltd., Tambaram Velacherry Road, 149, Sembakkam, Madras 600044.

Krupanandha Polymers, 145, East Masi St., Madurai 625001.

Wavin India Ltd., 63-66, Ambattur Indl. Est., Madras 600058.

West Bengal

Bells Electrical Corpn., 10A, Harrington St., Calcutta 700016.

Fort Gloster Inds. Ltd., 31. Chowringhee Road, Calcutta 700016.

Nicco Orissa Ltd., Nicco House, 2. Hare St. Calcutta 700001

Novoflex Cable Inds., 3B, Camac St., Calcutta 700016.

Power Insulated Cable Inds., 28/2, Shakespeare Sarani, Calcutta 700017.

P.V.C. LAMINATED SHEETS, FILMS, TUBINGS, ETC.

Caprihans (India) Ltd., Block D, Shivsagar Estate, Dr. A. Besant Road, Bombay 400018.

Dilip Plastics, 5, Shamshett St., Bombay 400002.

Indo-Kobe-Polymers, A-24, Nand Bhuvan Ind. Estate, Mahakali Caves Rd., Andheri East, Bombay 400093.

Orlum Laminates, 1- 5/1, M.T.H. Rd., Madras 600049.

Shiv Laminating & Coating Pvt. Ltd., E-33/35, Chikalthana Ind. Area, Aurangabad 4310[illegible]

Sri Lakshmi Polymers [illegible] Unit, Ind. Estate, Thanjavur 613006. (Tamil Nadu)

P.V.C. LEATHER CLOTH

A. Salemohamed & Co., 145, Sarang St., Opp. Crawford Mkt., Bombay 400003.

Bhor Industries Ltd., 392, Veer Savarkar Marg, Bombay 400025.

Dharampur Leather Cloth Co. Ltd., 10, Chowpatty Sea Face, Bombay 400007.

Varma Industries Ltd., Domlur Road, Vimanpura, Bangalore 560017.

P.V.C. PIPES & CONDUITS

Amar-Deo Plastic Inds., 7-9, Satguru Nanak Indl. Estate, W. Express Highway, Goregaon East, Bombay 400063.

Arun Plast, Sivakasi 626123. (Tamil Nadu).

Arvind Polymers Pvt. Ltd., 37/1-C, Mount Road, Guindy, Madras 600032.

Asmaco Plastipipe Pvt. Ltd., 15-17, Shamshett St., Bombay 400002.

Avon Inds., E-7/1, Unity Bldgs., J.C. Rd., Bangalore 560002.

Bajaj Plastics Ltd., Imambada Rd., Nagpur 440018.

Bhavi Plast Pvt. Ltd., 65, New Vasant Apartments, Garodianagar East, Bombay 400077.

Chemtsu Pipes, T-151, MIDC, Bhosari, Pune 411026.

Climax Pipes Pvt. Ltd., 18B, Brabourne Road, Calcutta 700001.

Consumers Plastics Pvt. Ltd., 912/913, Tulsiani Chambers, Nariman Point, Bombay 400021.

Dilip Plastics, 5, Shamshett St., Bombay 400002.

Finolex Plastic Pvt. Ltd., 26/27, Bombay Poona Rd., Pimpri, Pune 411018.

Garware Plastics & Polyester Pvt. Ltd., 50-A, Central Salsette Road, W. Express Highway, Vile Parle East, Bombay 400057.

Indian Plastics & Laminates Ltd., D-44, Indl. Area, Meerut Rd., Ghaziabad 201001.

Jain Pipe Mfg. Co., Post Box 29, Jalgaon 425001. (Maharashtra).

Jyoti Plastic Works, 94, B.T. Compound, Malad West, Bombay 400064.

Kanta Pipes (India), Nayasarak, Cuttack 753002. (Orissa).

Krupanandha Polymers, 145, East Masi St., Madurai 625001. (Tamil Nadu).

Madras Tube Inds., 25, Kalathi Pillai St., Madras 600001.

Neptune Plastic & Metal Inds., 15, India Exchange Place, Calcutta 700001.

Northern Plastics Pvt. Ltd., Post Box No. 151, New Delhi 110001.

Panchmahal Plastics Pvt.Ltd., Ramdurg, Alke, Mangalore 575003.

Pinakin Plastic Products, Kalali Rd., P.O. Atladra, Vadodara 390012.

Pipe Products of India, 15, Bannerghatta Rd., Bangalore 560030.

Plastic Kala Udyog, 54, Mittal Indl. Estate, Andheri Kurla Rd., Marol Naka, Bombay 400059.

Plastofield, 2/3, Y. Meherally Rd., Bombay 400003.

Polyolefins Industries Ltd., Pipes Dn., Post Bag 23, Akola 444001.

Prakash Pipes & Inds. Ltd., 201, Padma Tower, Rajendra Place, New Delhi 110008.

Quality Hindustan Corpn., 413, Commerce House, 140, Medows St., Bombay 400001.

Raj Chemo Plast Inds., 3, Popular Mkt., Gandhibagh, Nagpur 440002.

Raja Plastic Inds., 5-5-89/67, Sara Iron Mkt., Raniganj, Secunderabad 500003.

Ramesh Plastic Product, 83, Govt. Indl. Estate, Kandivli, Bombay 400067.

Ramplast Marketing Co. Pvt. Ltd., Post Box 34, Pimpri, Pune 411018.

Rigidor Plastics Pvt. Ltd., 912/913, Tulsiani Chambers, N. Point, Bombay 400021.

Saibaba Plastics, 118, Himalaya House, Palton Rd., Bombay 400001.

Selfshine Inds., C-10, Central Rd., Marol MIDC, Bombay 400093.

Shiv Ganga Inds., 16, Shivaji Mrg., New Delhi 110015.

Span Corpn., 2, Kondi Chetty St., Madras. 600001.

Supreme Inds. Ltd., Post Box 7381, Bombay 400058.

Synmates India, 85, Chandralok, S.D. Road, Secunderabad 500003.

Uiplast Pvt. Ltd., 4/1, Mariswamappa Lane, S.J. Park Rd. Cross, Bangalore 560002.

Victory Plastics Pvt. Ltd., 912/913, Tulsiani Chambers, Nariman Point, Bombay 400021.

P.V.C. PLASTIC ARTICLES

Bachubhai N. Shah, 170, Abdul Rehman Street, Bombay 400003.

Dilip Trading Co., 5, Shamshett Street, Chippi Chawl, Bombay 400002.

Popular Stores, 155, Janjikar Street, Bombay 400003.

Premier Plastics, 303, Abdul Rehman St., Bombay 400004.

Zephyr Leather Works, 396/402, Sheikh Memon St., Corner of Trikamji Ghiya Mrg., Bombay 400002.

P.V.C. RESINS & COMPOSITIONS

Andhra Pradesh

Continental Chemicals, Block D-7, Indl. Estate, Nellore 524004.

Crystal Polymers & Additives Pvt. Ltd., 417/3RT, S.R. Nagar, Hyderabad 500038.

Delhi

Shriram Chemical Ind., Kanchanjunga, Barakhamba Road, New Delhi 110001.

Karnataka

International Polymers, 80, 18th Cross, Wilson Gardens, Bangalore 560027.

International Traders, 18, Lalbagh Rd., Bangalore 500027.

Maharashtra

Chemtsu, T-151, MIDC., Bhosari, Pune 411026.

Ilac Ltd., Chemicals & Plastics Dn., Anik Chembur, Bombay 400074.

Plastic Lubricants & Additives, Ashish, 40, Babu Genu Rd., Bombay 400002.

Plastic Resins & Chemicals Ltd., Bharat Insurance Bldg., 15-A, Horniman Circle, Bombay 400023.

Shree Bharat International, 512, Churchgate Chambers, 5, New Marine Lines, Bombay 400020

Yugo Intraco Pvt. Ltd., Eucharistic Congress Bldg., 5, Convent St., Bombay 400039.

Tamil Nadu

Chemicals & Plastics India Ltd., Dhun Bldg., 175/1, Mount Road, Madras 600002.

West Bengal

Polymer Engrs., P-193A, Ramakrishna Samadhi Rd., Calcutta 700054.

PRESSURE COOKERS

Asian Industries, B/15A, Ghatkopar Indl. Estate, Bombay 400086.

Gangadharam Enterprises, 147, Karapakkam Village, Old Mahabalipuram, Madras 600006.

Gladstone Lyall & Co. Ltd., Govind Mahal, 3, Wood St., Calcutta 700001.

Goodwill Light House, Safed Pool, Kurla-Andheri Rd., Bombay 400072.

India Metal Inds., 139/141, C.P. Tank Road, Bombay 400004.

Khira Steel Works Ltd., Khira Bhavan, Sandhurst Bridge, Bombay 400007.

Killick Nixon Ltd., 31, Murzban Rd., Bombay 400001.

Mareeshar & Co., 1-2, Lawyer Chinnathambi St., Madras 600001.

Noble Electric Co., Kala Ind. Estate, LBS Marg, Bombay 400078.

Pressure Cookers & Appliances Ltd., F-101, Maker Towers, Cuffe Parade, 400005.

Sahyadri Sales & Services, 64-A, 3rd Rd., Bombay 400052.

T.T. Pvt. Ltd., 78, Old Madras Rd., Dooravaninagar, Bangalore 560016.

Tempo Engg. Works, 215, Kamla Mkt., New Delhi 110002.

United Bros., 1397, Ballimaran, Delhi 110006.

Veejay's Trading Corporation, Ahmed Bldg., 49/51, K.M. Sharma Marg, Bombay 400002.

Victory Engg. & Indl. Works, Qutab Rd., Delhi 110006.

W. R. Talwarkar Bros. Pvt. Ltd., Sharif House, 74, S. Bhagat Singh Road, Bombay 400023.

Warm Stream, Anand Sojitra Road, Vithal Udyognagar 388121 (Gujarat).

PRESSURE VESSELS & GAUGES

ACC-Vickers-Babcock Ltd., Express Towers, 18th Flr., N. Point, Bombay 400021.

Anup Engg. Ltd., Post Box No. 1164, Ahmedabad 380002.

Deccan Mechanical & Chemical Inds. Pvt. Ltd., 78, Bhosari Ind. Area, Pune 411026.

Decorative Metal Works, 56, Shuklaji St., Bombay 400008.

Do-Well Oil Plants Pvt. Ltd., 306, Manish Comml. Centre, Dr. A. Besant Rd., Bombay 400025.

Efforts Pvt. Ltd., Ganga Bhavan, Mission Area, Near Pavan Chakki, Nadiad 387001. (Gujarat).

Everest Engg. Works, Crosscut Rd., Coimbatore 641012.

Gannon Pressure Vessels Ltd., 98, Mittal Chambers, N. Point, Bombay 400021.

Girija Engg. Inds., Patel Estate, Goregaon East, Bombay 400063.

Hitvic Engg. & Mfg. Co. Pvt. Ltd., Vallabh Vidyanagar 388120. (Gujarat).

I.A.E.C. Boilers Pvt. Ltd., 110, General Patters Rd., Madras 600002.

India Tube Mills & Metal Inds. Pvt. Ltd., Dhiraj Chambers, 9, H. Somani Mrg., Bombay 400001.

J.S. Chemiequipment Pvt. Ltd., A/7, M.I.D.C., Meera Ind. Area, Meera 401104 (Thane Dist.).

K.C.P. Ltd., Tiruvottiyur, Madras 600019.

Kanara Engg. Co. Ltd., Melville House, Ghatkopar East, Bombay 400075.

Karnataka Instruments, A-269, Indl. Estate, 2nd Stage, Peenya, Bangalore 560058.

Kaveri Structurals, Senthannipuram Golden Rock, Tiruchirapalli 620004.

Keming Tools Co. Ltd., 165/1, Kolshet Rd., Thane 400607.

Kosan Metal Products Pvt. Ltd., Chembur, Mahul, Bombay 400074.

Lloyds Steel Inds., Lloyds House, 86/19, M. Vasanji Rd., Andheri East, Bombay 400059.

M.A. Engg. Corpn., L.3, Universal Compd., Andheri East, Bombay 400069.

Mahavir Inds., 10, Lati Plot, Rajkot 360001.

Monometer (India) Pvt. Ltd., Manu Mansion, 16, S. Bhagatsingh Rd., Bombay 400023.

Mukat Tanks & Vessels Ltd., Plot J-11, MIDC Indl. Estate, Tarapur 401502. (Maharashtra).

Mukul Industrial Corpn., 103-B, Tejpaul's Indl. Estate, Kurla Andheri Rd., Saki Naka, Bombay 400072.

Nagam Serak Instruments, Majestic Colony, Arcot Rd., Madras 600087.

Neven Textile Engrs., 53 AB, Govt. Indl. Estate, Kandivli West, Bombay 400067.

Otokin Plant & Equipments Ltd., 1006, Prasad Chambers, Bombay 400004.

Patfab Inds., Shelavi Indl. Estate, Rakhial, Ahmedabad 380023.

RCG Instruments, A1/25, Rambag, Pune 411030.

Shree Mahavir Inds., 10, Lati Plot, Rajkot 360003. (Gujarat).

Standard Engineers, Sharda Sadan, 11, S.A. Brelvi Rd., Bombay 400001.

Standard Plates & Vessels Pvt. Ltd., Plot No. 9, MIDC Indl. Area, Kolhapur 416122.

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Coronation Printing Ink Mfg. Co., Post Box 270, Sivakasi 626123. (Tamil Nadu).

Diamond Printing Inks, 22, Lake View Road, Madras 600033.

Dolphin Inks Pvt. Ltd., A-5, Premnagar SOC., Indore 452003.

Excel Printing Ink Co., 10-A, Survodaya Mill Compd., Tardeo, Bombay 400034.

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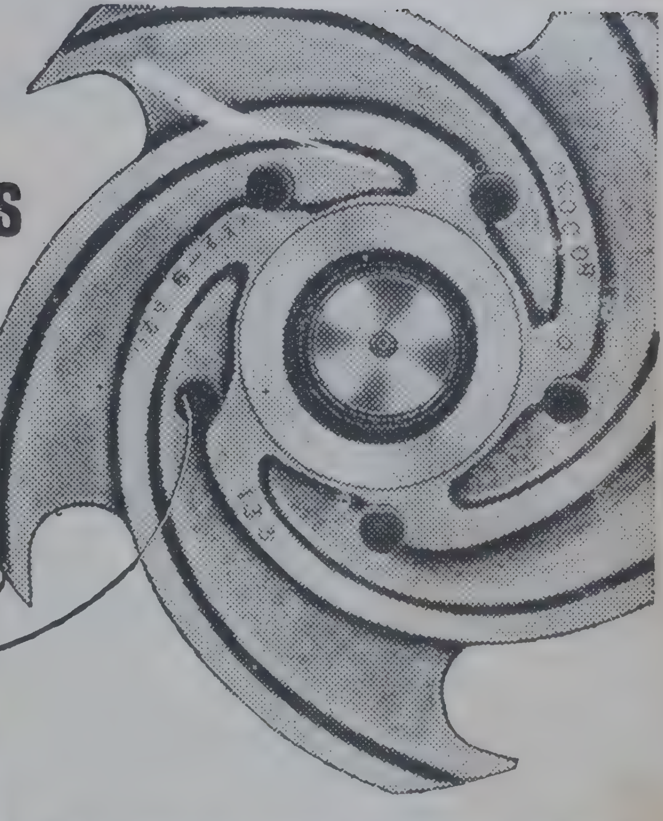

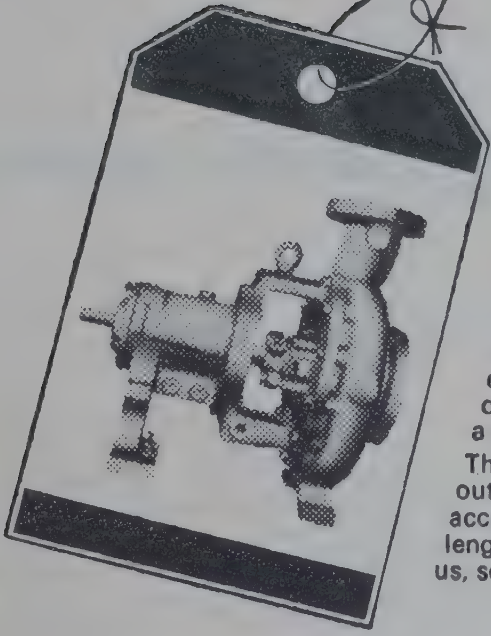

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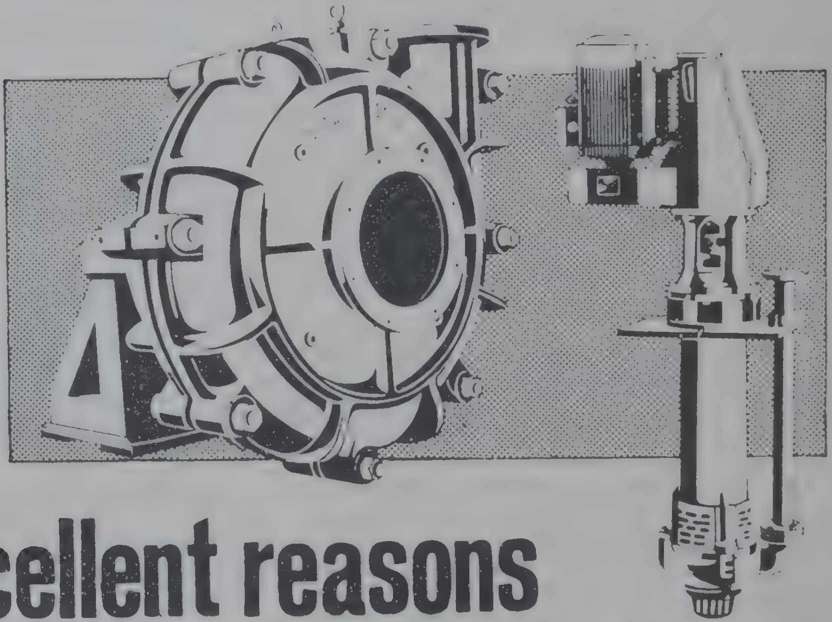

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Hydro-electric Generating Sets: Propeller and Tubular Turbine * Francis Turbine * Turgo-Impulse and Pelton Turbines.

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Motors: Horizontal H.T. & L.T.—High and Low Tension (Squirrel Cage and Slip-ring) * Vertical H.T. & L.T.—High and Low Tension (hollow shaft and solid shaft) * Centrifuge * Special-purpose Textile—Loom & Card and Ring-Frame * D.C. Motors & D.C. Generators.

Generators: Self-regulated and self-excited type * Brushless * Synchronous * Diesel Generating Sets

Regulators: Induction * Automatic-voltage for Generators

Converters: Frequency * Arno Static/Solid State Excitation Systems

Switchboards & Switch Gears

Motor Starters: Full Voltage—Oil immersed Direct-on-line and Air-break Direct-on-line * Reduced Voltage—(Oil-immersed Automatic Star/Delta, Air-break Automatic Star/Delta, Manually-operated Air-break Star/Delta, Manually-operated Oil-immersed Auto-transformer, Automatically-operated Oil-immersed Auto-transformer)

Control Panels: For Auto-transformer *Textile Motor (Ring-Frame and Card)

Circuit Breakers: L.T. Air * High Tension Low Oil-content * Extra High Tension.

Vacuum Contactors: High Tension

Transformers: H.T. Instrument—Indoor and Outdoor

Switches: Cam Type * Pole changing

Switchboards: L.T. & H.T.—draw-out type.

Relays & Control Panels

Relays (Protective): Static Inverse Definite Minimum Time Over Current & Earth Fault * Electro Mechanical Single Pole Inverse Definite Minimum Time Over Current & Earth Fault Type RSA * Instantaneous Over Current and Earth Fault Type PA * Instantaneous Undervoltage & Overvoltage Type PV * Static Definite-Time Lag Over Current & Earth Fault Type SPAK * Static Definite Time Lag Undervoltage & Overvoltage Type SPVK * Static Motor Protection Type JSMP * Static Transformer Differential with Harmonic Restraint * Static Directional Inverse Definite Minimum Time Over Current & Earth Fault Type JPRSA * Static Distance.

Relays (Auxiliary): Voltage-operated Plug-in Type RE * Static Time Delay with delay on pick-up or drop off SRT * Annunciator Type AR * Storage Power packs for Tripping Type JDC * Trip SuperVision * Test Plug Boxes Type

Control Panels: Simplex/Duplex Type.

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Gram: JYOTIPUMPS
Telex 0175-214, ABC: JOTI-IN

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Worli, Bombay 400 018
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373166
Gram: JYOTIPUMPS
Telex: 011-2750, ABC. JOTI-IN

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747019
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Florite Engg. Corpn., 162, Tulsi Pipe Rd., Opp. Phoenix Mills, Lower Parel, Bombay 400013.

Herberts Grovers Engg. Co., Hamam St., Bombay 400023.

Hindustan Dorr-Oliver Ltd., Dorr-Oliver House, Chakala, Andheri (E), Bombay 400093.

Industrial Marketing Services, Jiji House, 1st Flr., Ravelin St., Bombay 400001.

Ingersoll-Rand India Pvt. Ltd., Maybaker House, S. K. Ahire Mrg., Bombay 400025.

International Instruments, 15, Samrat Silk Mills Estate, Bombay 400079.

J. B. Sawant Engg. Pvt. Ltd., Udyog Nagar, Goregaon (W), Bombay 400062.

K.S.B. Pumps Ltd., Pimpri, Pune 411018.

Khimline Pumps Pvt. Ltd., 28, Mittal Chambers, N. Point, Bombay 400021.

Kiran Products, 427/A-2, Gultekdi Ind. Estate, Pune 411037.

Kirloskar Bros. Ltd., Udyog Bhavan, Tilak Rd., Pune 411018.

Kishor Pumps Pvt. Ltd., A 13/H, Block, MIDC Indl. Area, Pimpri, Pune 411018.

Larsen & Toubro Ltd., L. & T. House, Ballard Estate, Bombay 400038.

Lynx Machinery Ltd., 43, Nariman Rd., Bombay 400001.

Mather & Platt Ltd., Hamilton House, 8, Graham Rd., Ballard Estate, Bombay 400038.

MBH Pumps Pvt. Ltd., 3, Mira Indl. Estate, Mira 401104. Thane Dist.

Mercantile & Ind. Dev. Co. Pvt. Ltd., National House, 6, Tulloch Rd., Bombay 400039.

Modi Industries (F.C.) Pvt. Ltd., 62, B. Shankar Rd., Dadar, Bombay 400028.

Narhari Engg. Works, 480, Kalbadevi Rd., Bombay 400002.

New Vijay Ind. Ltd., P.O. Wellington College, Vishrambagh, Sangli 416416.

Packco Engg. Pvt. Ltd., Block 2, Shivaji Udyam Nagar, Kolhapur 416001.

Poona Intermesh Pump Pvt. Ltd., S-116, Pune 411026.

Precision Pumps Inds., 219/4, Harish Terrace, R.A. Kidwai Rd., Wadala, Bombay 400031.

Protecto Engg. Pvt. Ltd., 26, Govt. Indl. Estate, Kandivli West, Bombay 400067

Protos Engg. Co. Pvt. Ltd., 173, J. Tata Rd., Bombay 400020.

Radiant Electric & Machinery Co., C/12, A, Commerce House, Tardeo, Bombay 400034.

Rohini Engg. Works Pvt. Ltd., Ind. Estate, Miraj 416410.

Roto Pumps & Hydraulics Pvt. Ltd., 162-B, Co-op. Indl. Estate, Kanpur 208022.

Ruston & Hornsby (I) Ltd., Chinchwad, Pune 411019.

Semeicon Pvt. Ltd., 132, A. Besant Rd., Bombay 400018.

Shivaji Works Ltd., Shivashahi 413224. Solapur Dist.

Shukla Manseta Ind. Pvt. Ltd., 24B, Hamam St., Bombay 400001.

Sigil (I) Services Pvt. Ltd., Ismail Bldg., 381, Dr. D. Naoroji Rd., Bombay 400001.

SU Motors Pvt. Ltd., Bal Rajeshwari Rd., Off LBS Marg, Mulund, Bombay 400080.

Tahira Ind. (I) Pvt. Ltd., 19/21, Manohardas St., Opp. G.P.O., Bombay 400001.

Teknoworks (India), Lal Bahadur Shastri Marg, Bhandup, Bombay 400078.

Todi Ind. Pvt. Ltd., Todi Estates, Lower Parel, Bombay 400013.

V.K. Pump Inds., 39-B, Suren Rd., Andheri East, Bombay 400093.

Vickers Sperry of India Ltd., Akurli Rd., Kandivli, Bombay 400067.

Vijay Pumps Pvt. Ltd., Chandra Niwas, Behind Police Line, Andheri East, Bombay 400069.

Vishvanath Industries, 99, Netaji Subhas Rd., Bombay 400002.

Vulcan Laval Ltd., Dapodi, Pune 411012.

W. R. Talwalker Bros. Pvt. Ltd., Lentin Chambers, Dalal St., Bombay 400023.

Water Supply Specialists Pvt. Ltd., 8, Hamam St., Bombay 400023.

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Pump Mfg. Corpn., Opp. M.I. Rd., Jaipur 302001.

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Best & Crompton Engg. Ltd., 13/15, North Beach Rd., Madras 600001.

Bharat Foundry, 13, Amman Kulam Rd., Pappanaickenpalayam, Coimbatore 641037.

British & Eastern Engg. Co., No. 16, General Patters Rd., Madras 600002.

Chandra Foundries Pvt. Ltd., 55, Basin Bridge Rd., Madras 600021.

Chitra Industries, 1135-B, Trichy Rd., Coimbatore 641005.

Coimbatore Premier Corpn. Pvt. Ltd., 32, Arts Coll. Rd., Coimbatore 641018.

Dhandayuthapani Foundry Pvt. Ltd., 2/1, Pappanaickenpalayam, Coimbatore 641037.

DPF Engg. Products Pvt. Ltd., 3/1, P. N. Palayam, Coimbatore 641037.

Eastern Electrical Co. Pvt. Ltd., 26/22, Aerodrome Rd., Singanallur, Coimbatore 641005.

EL P EM Industrials, Mettupalayam Rd., Coimbatore 641002.

El. Pe. Kay Inds., 27/1, East Periaswamy Rd., Coimbatore 641002.

Elgi Equipments Ltd., India House, Trichy Rd., Coimbatore 641018.

Eltex Engg. Corpn. Pvt. Ltd., P.O. Ganapathy, Coimbatore 641006.

General Engg. Co., Mettupalayam Rd., Coimbatore 641011.

H.R. Industries, 7/311, Avanashi Rd., Coimbatore 641018.

IAEC Pumps Ltd., Near Villivakkam Rly. Stn., Rajamangalam, Madras 600049.

Industrial Aids Corpn., 8/178, Trichy Rd., Coimbatore 641045.

Kala Ind. Pvt. Ltd., Mettupalayam Rd., P.O. Tudiyalur, Coimbatore 641034.

Kirthi Inds., Ganapathy, Coimbatore 641006.

Mahendra Engg. Works, Puliyakulam, Coimbatore 641018.

Meenakshi Engg. Works, 12, Periathambi Mudali St., Madras 600007.

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Nasa Pump Factory, B-13, Guindy Indl. Estate, Madras 600032.

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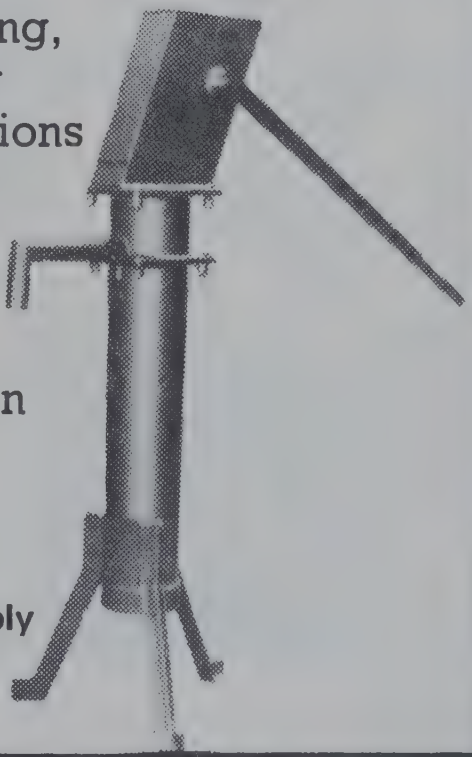

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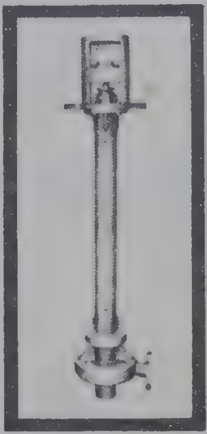

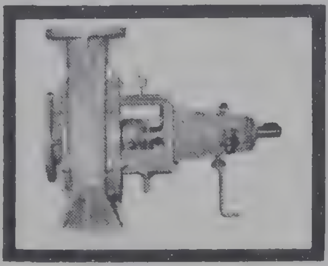

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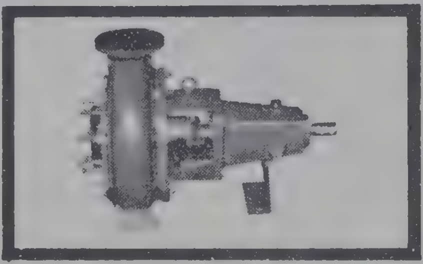

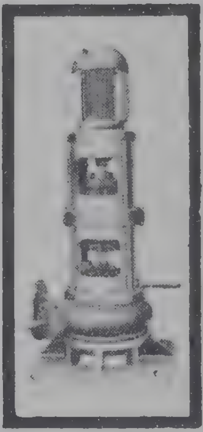

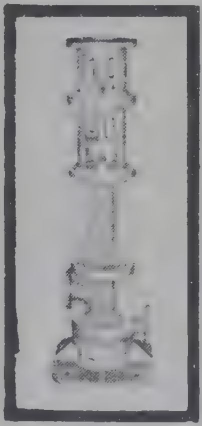

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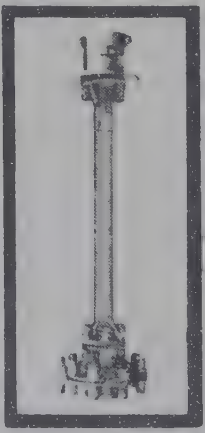

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Southern Engg. Industrials, 343, Avanashi Rd., Coimbatore 641018.

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Subbiah Foundry, Avanashi Rd., Pappanaickenpalayam, Coimbatore 641037.

Suguna Agencies, 160, Linghi Chetty St., Madras 600001.

T. R. Ind., Kuniamuthur, Coimbatore 641008.

Texmo Ind., P.O. Ganambika Mills, Coimbatore 641011.

Udhay Krishna Engg. Works, 1, Pera Naidu St., Peelamedu, Coimbatore 641004.

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Gopi Spray Mfrs. & Engrs., 46/63, Katia Bazar, Kanpur 208001.

J. K. Industries, Hathras Rd., Agra 282006.

Jai Gopal Inds., Civil Lines, Bulandshahr 203001.

Roto Pumps & Hydraulics Pvt. Ltd., 162B, Co-op. Ind. Estate, Kanpur 208022.

Roxon Engg. Corpn., G.T. Rd., Ghaziabad 201001.

West Bengal

Associated Electrical Ind. (I) Ltd., Crown House, 13, R. Mukherjee Rd., Calcutta 700001.

B. E. Pumps Pvt. Ltd., 4, BBD Bagh (E), Calcutta 700001.

Baveja Group, 10/1, Princep St., Calcutta 700072.

Bengal Iron Works Pvt. Ltd., 16/2, Chatterjee Para Lane, Howrah 711101.

C.S.K. Industries, 219/C, Old China Bazar St., Calcutta 700001.

Dev Engg. Works, 17, Sarat Dutta Lane, Howrah 711101.

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Electl. & Mechanical Equipment Corpn., 17, Das Le., Calcutta 700012.

Hindustan Machines & Pumps, 17, Das Lane, Calcutta 700012.

Hindustan Pumps & Machinery Corpn., 3, N. C. Chowdhury Rd., Kasba, Calcutta 700042.

Indian National Diesel Engine Co. Ltd., 6, Little Russel St., Calcutta 700071.

International Combustion India Ltd., 101, Park St., Calcutta 700016.

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Roger Engg. Works, 23A, N. Subhas Rd., Calcutta 700001.

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Electronics Corpn. of India Ltd., Cherlapalli, Hyderabad 500762.

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Telesound India Ltd., G-4, NDSE Part I, New Delhi 110049.

Television Service Corpn., G-8A, Hauz Khas, New Delhi 110016.

Television & Sound Centre, 16/1022, Main Arya Samaj Rd., Karol Bagh, New Delhi 110005.

Televista Electronics Pvt. Ltd., 293, Okhla Ind. Estate, New Delhi 110020.

Weston Electronics Pvt. Ltd., 244, Okhla Ind. Estate, New Delhi 110020.

Gujarat

Parry Engg. & Electronics Pvt. Ltd., Opp. Jain Temple, M. Gandhi Rd., Ahmedabad 380001.

Karnataka

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Electronic Devices, Andrews Bldgs., M. Gandhi Rd., Bangalore 560001.

Radio & Electrical Mfg. Co. Ltd., 2, Mysore Rd., Bangalore 560026.

Maharashtra

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Afco Ltd., 9, Wallace St., Bombay 400001.

Bhatty Electronics Corpn., 98, Ind. Estate, Kandivli West, Bombay 400067.

Bush India Ltd., Sukh Sagar, Sandhurst Bridge, N. S. Patkar Marg, Bombay 400007.

Cosmic Radio, 9-B, Mahal Ind. Estate, M. Caves Rd., Andheri (E), Bombay 400093.

Mulchandani Electrical & Radio Ind. Ltd., Wagle Ind. Area, Thane 400604.

Murphy India Ltd., Nirmal, Backbay Reclamation, Nariman Point, Bombay 400021.

National Radio & Electronics Co. Ltd., Unity House, 8, M. Parmanand Marg, Bombay 400004.

Peico Electronics & Electricals Ltd., Shivsagar Estate 'A', Dr. A. Besant Rd., Worli, Bombay 400018.

Radio Electric Pvt. Ltd., Lamington Chambers, Dr. Bhadkamkar Rd., Bombay 400004.

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Telecom Ind. Pvt. Ltd., 37, Saki Vihar Rd., Bombay 400072.

Telerad Ltd. (Divn. of S. M. Chemicals & Electronics Ltd.), Chandivali, Saki Vihar Rd., Bombay 400072.

Waco Radio Electronics Ind., Sukhsagar Bldg., Hughes Rd., Bombay 400007.

Rajasthan

Television Combine, Jhotwara, Jaipur 302006.

Tamil Nadu

Dynavision Ltd., 1, Padmanabhanagar, Adyar, Madras 600020.

G. Janshi & Co., 2/163, Mount Rd., Madras 600002.

U.M.S. Radio Factory Pvt. Ltd., Avanashi Rd., Coimbatore 641018.

Uttar Pradesh

Asia Electric Mfg. Co., 329, Muthiganj, Allahabad 211003.

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General Electric Co. of India Pvt. Ltd., Magnet House, 6, Chittaranjan Ave., Calcutta 700013.

Gramophone Co. of India Ltd., Dum Dum, Calcutta 700028.

Guest, Keen, Williams Ltd., Jeevan Deep, 3A, Shakespeare Sarani, Calcutta 700016.

Hindustan General Electric Corpn. Ltd., 25, Brabourne Rd., Calcutta 700001.

Santosh Radio Products, 21, Sooterkin St., Calcutta 700072

Voice Master Radio Corpn., 159/1B, R. Behari Ave., Calcutta 700029.

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Bharat Earth Movers Ltd., Unity Bldgs., J. C. Rd., Bangalore 560002.

San Engg. & Locomotive Co. Ltd., Post Box No. 480, 2, Whitefield Rd., Bangalore 560048.

Madhya Pradesh

Gwalior Engg. Works, Lashkar, Gwalior 474001.

Maharashtra

K. T. Steel Ind. Pvt. Ltd., 9, Altamount Rd., Bombay 400026.

Marian Engg. Co., 7/10, Botawala Bldg., Horniman Circle, Bombay 400023.

McKenzies Ltd., Sewree, Bombay 400015.

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Siemens India Ltd., 134A, A. Besant Rd., Bombay 400018.

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Festo Elgi Pvt. Ltd., India House, Trichy Rd., Coimbatore 641018.

Integral Coach Factory, Perambur, Madras 600038.

Southern Structurals Ltd., P.B. No. 74, Madras 600006.

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Burn & Co. Ltd., Howrah Iron Works, Howrah 711101.

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Hindusthan Iron & Steel Co., 8, R. Deb Rd., Calcutta 700007.

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Jessop & Co. Ltd., 63, N. Subhas Rd., Calcutta 700001.

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Shree Hanuman Foundry & Engg. Co. Ltd., 46, Strand Rd., Calcutta 700001.

Stone India Ltd., 16, Taratalla Rd., Calcutta 700088.

Victoria Engg. Works, 60, Goshala Rd., Liluah 711204.

RAYON

Andhra Pradesh Rayons Ltd., 1-2-597/15, Gaganmahal, Hyderabad 500029.

Baroda Rayon Corpn. Ltd., P.O. Baroda Rayon 394220 (Surat Dist.).

Century Rayon, Industry House, Churchgate Reclmn., Bombay 400020.

Indian Rayon Corpn. Ltd., Veraval 362266. (Gujarat).

Kesoram Rayon, 10, Camac St., Calcutta 700017.

National Rayon Corpn. Ltd., Ewart House, Homi Mody St., Bombay 400023.

Shriram Rayons, Kota 324001.

Travancore Rayons Ltd., Rayonpuram 683543 (Kerala State).

RECORD PLAYERS

Gramophone Co. of India Ltd., 33, Jessore Rd., Calcutta 700028.

H. M. V., Universal Bldg., Sir P. M. Rd., Bombay 400001.

Peico Electronics & Electricals Ltd., 7, J.C. Madhab Rd., Calcutta 700020.

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Automatic Electric Co. Ltd., Rectifier House, 570, Naigaum X Rd., Bombay 400031.

Brentford Electric (India) Ltd., 8, Clive Row, Calcutta 700001.

Cresta Instruments, 140, S. Temple Rd., Bombay 400016.

Delton Electricals, A/1, Vasai Taluka Indl. Co-op. Estate Ltd., Vasai Rd. East, P.O. Gokhivare 401202. (Thane Dist.).

Hind Rectifiers Ltd., Lake Rd., Bhandup, Bombay 400078.

International Rectifiers (India) Pvt. Ltd., Flat No. 15, C-40, Dwarka Sadan, Conn. Place, New Delhi 110001.

Jindal Electricals, 390-A, Indl. Area 'A', Ludhiana 141003.

Keltron Rectifiers Ltd., Hill View, 14/864, Vellayambalam, Trivandrum 695001.

Khandelwal Hermann Electronics Ltd., Bhandup, Bombay 400078.

Maxtronix Pvt. Ltd., 1, Rajendra Society, Vadodara 390011.

Mogora Cosmic Pvt. Ltd., 697, Mohan Nagar, Telco Rd., Chinchwad, Pune 411019.

Pactil Electronics Pvt. Ltd., Feltham House, Graham Rd., B. Estate, Bombay 400038.

Ruttonsha-International Pvt. Ltd., P.B. No. 661, G.P.O., Bombay 400001.

Semcon Electronics Pvt. Ltd., S. D. F. Bldg., Unit No. 16, Santacruz Electronics Processing Zone, Marol Ind. Area, Mahakali Caves Rd., Andheri (E), Bombay 400093.

Sukson Ind., 16/3, Jawaharnagar, Road No. 2, Goregaon (West), Bombay 400062.

Supreme Electric & Engg. Works, Acharya Indl. Estate, Wadavli, Chembur, Bombay 400074.

Usha Rectifier Corpn. India Pvt. Ltd., 19, Brunton Rd., Bangalore 560025.

REDUCTION GEARS & SPEED CONTROLLERS, INDICATORS, ETC.

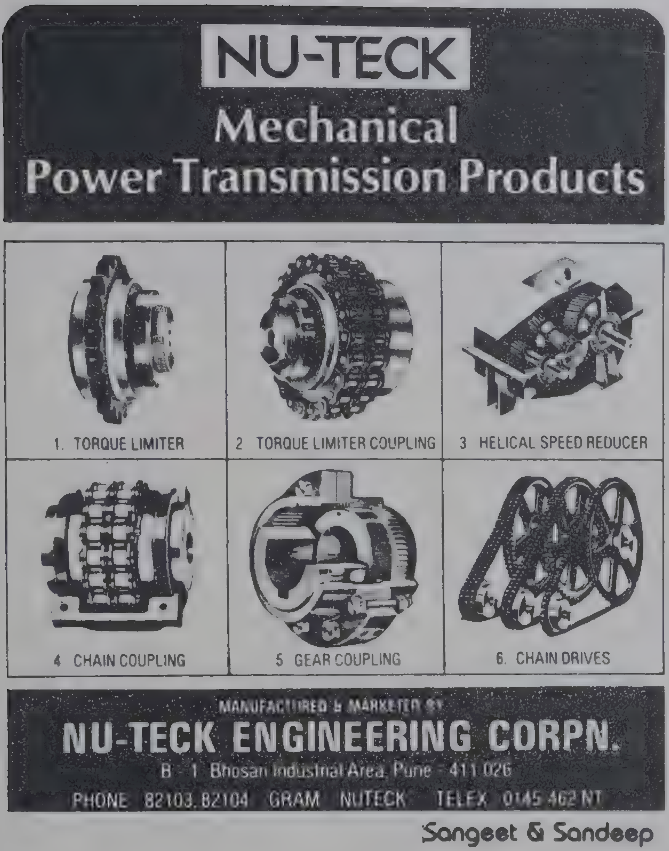
Beacon Indl. Electronics Pvt. Ltd., Shree Ram Indl. Estate, Wadala, Bombay 400031.

Daver Engg. Pvt. Ltd., 70, Lakshmi Insurance Bldg., Sir P. M. Road, Bombay 400001.

Dymo Electronics, 157, Lohar Chawl, Bombay 400002

Essential Engg. Co., P. Box No. 1830, Bombay 400001.

Fenner J. H. & Co. (I) Ltd., 56D, Free School St., Calcutta 700016.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Prerna Electronics, C-107, Ansa Indl. Estate, Saki Vihar Rd., Andheri East, Bombay 400072.

Wooden Vat Mfg. Co., Pardi Stn. 396145. (Valsad Dist.).

REFRACTORIES

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Dr. V. S. Krishna Ceramics & Potteries, Rajahmundry 533101.

Krishna Refractories, Indl. Estate, Chandulal Baradai, Hyderabad 500264.

Raasi Refractories Ltd., 1-10-1/14, Ashoknagar, Hyderabad 500020.

Bihar

Assam Sillimanite Ltd., Ranchi Rd., P.O. Marar 829117. Hazaribagh Dist.

Bharat Firebricks & Pottery Works Ltd., Jharia 828111. Dhanbad Dist.

Harish Tara Refractories, Lake Ave., Kanke Rd., Ranchi 834001.

India Firebricks & Insulation Co. Ltd., Marar 829117. Hazaribagh Dist.

Jharia Firebricks & Refractory Works Pvt. Ltd., P.O. Dhansar 828106. Dhanbad Dist.

Kumardhubi Fireclay & Silica Works Ltd., Kumardhubi 828203 Dhanbad Dist.

Naveen Ind., Mugma, Dhanbad 826001.

Reliance Firebricks & Pottery Co. Ltd., P.O. Chanch Pottery, Dhanbad Dist.

Delhi

Amar Nath Bhaskar Sons, P.O. Ishwar Nagar, New Delhi 110065

Dalmia Ceramic Ind., 4, Scindia House, Connaught Place, New Delhi 110001.

Durga Enterprises Pvt. Ltd., 10, Daryaganj, New Delhi 110002.

Express Inds., F-11, Defence Colony, New Delhi 110024

Ishwar Ind. Ltd., P.O. Ishwar Nagar, New Delhi 110065

Orissa Cement Ltd., 4, Scindia House, Connaught Place, New Delhi 110001.

Premier Refractories of India Pvt. Ltd., 10, Alipur Rd., Delhi 110006.

S. N. Sunderson & Co., 1, D. B. Gupta Rd., New Delhi 110055.

Gujarat

Bhavnagar Refractories & Ceramic Mfg., Nari Rd., Bhavnagar 364001.

Narendra Ceramics Pvt. Ltd., National Highway Rd., Wankaner 363622.

Nowroji N. Vakil & Co., Naroda Rd., Ahmedabad 380002.

Saurashtra Calcine Bauxite & Allied Inds., Kamal Vihar, Stn. Rd., Porbandar 360575.

Haryana

A. N. Bhaskar Sons, Amar Nagar, Faridabad 121003.

Karnataka

Firebricks & Potteries Ltd., Yeshwantpur, Bangalore 560022.

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Porbandar 360575.

Hightemp Refractories & Clay Works, Sanskrit College Rd., Tripunithura 682301.

Standard Pottery Works Ltd., Alwaye 683101.

Madhya Pradesh

Burn & Co. Ltd., Refractory & Ceramic Works, North Civil Lines, Jabalpur 482001.

Premier Refractories of India Ltd., Katni 483501, Jabalpur Dist.

Thermofilics India, 49/51, Indl. Estate, Adharbal, Jabalpur 482004.

Maharashtra

Alexander & Raymond (Bombay), Sun-n-Sea Co.-op. Housing Society Ltd., J. Prakash Rd., Bombay 400058.

Alka Refractories, 5, Jaldhara, 15th Road, Khar West, Bombay 400052.

Associated Cement Cos. Ltd., Cement House, 121, M. Karve Road, Bombay 400020.

Ceramic Engg. Enterprise, 166, Vidyanagari Mrg., Kalina, Bombay 400098.

Gandhi Sales Corpn., 138, Nagdevi St., Bombay 400003.

High Grade Refractories Pvt. Ltd., 208, New Anant Bhuvan, 257/67, Narsi Natha St., Bombay 400009.

J. Chandravadan & Co., 53, C.P. Tank Rd., Bombay 400004.

Jelly & Co., 301, Dalamal Chambers, 29, New Marine Lines, Bombay 400020.

Maharashtra Refractories & Ceramics Ltd., Plot 5, Abhyankar Nagar, Nagpur 440010.

Mahavir Refractories Corpn., Maker Bhavan No. 2, New Marine Lines, Bombay 400020.

Marathwada Refractories Ltd., Post Box 14, Aurangabad 431001.

Precision Ceramics, Mira Village, Vivekanand Rd., Bombay 400092.

Saraf Engg. Works, 203-D, Poonam Apartments, Dr. A. Besant Road, Bombay 400018.

Sharad Retractory Works, Khorshed Bldg., Sir P. Mehta Rd., Bombay 400001.

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Sterling Refractories Corpn., 6/1st Flr., Tardeo Air-conditioned Mkt., Bombay 400034.

Thakkar Trading Co., 57, S. Patil Rd., Bombay 400009.

Therelek Furnaces Pvt. Ltd., A-131, Rd. No. 23, Wagle Ind. Estate, Thane 400604.

V. M. Corpn., Bharat House, 104, Apollo St., Bombay 400023.

Vision Refractories, Rustom Bldg., 29, V. Nariman Rd., Bombay 400023.

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Belpahar Refractories Ltd., Belpahar 768218. Sambalpur Dist.

Ipibel Refractories Ltd., 192, Kharvelanagar, Bhubaneswar 751001.

Orissa Cement Ltd., Rajgangpur 770017. Sundorgarh Dist.

Orissa Inds. Ltd., P.O. Lathikala, Rourkela 769004.

Rajasthan

Nutech Refractory Pvt. Ltd., Bhilwara 311001.

Tamil Nadu

Albrico Refractories Pvt. Ltd., 21, Second Line Beach, Madras 600001.

Belapur Refractories Ltd., Karuppur, Salem 636012.

Carborundum Universal Ltd., 11/12, North Beach Rd., Madras 600001.

City Ceramics Pvt. Ltd., 11-A, Madurai Rd., Palakkarai, Tiruchirapalli 620008.

Dalmia International, 29, Ind. Estate, Ambattur, Madras 600058.

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Tube Suppliers Ltd., 99, Armenian St., Madras 600001.

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Assam Sillimanite Ltd., P4, Oil Installation Rd., Calcutta 700023.

Associated Tar & Retractories Pvt. Ltd., 9, Old Court House St., Calcutta 700001.

Balsukh Refractories & Ceramics Ltd., Salanpur 713357. Burdwan Dist.

Behar Firebricks & Potteries Ltd., 22, Strand Rd., Calcutta 700001.

Belapahar Refractories Ltd., 43, Chowringhee Rd., Calcutta 700071.

Bengal Bihar Firebricks & Pottery Works Pvt. Ltd., 26, Burtalla St., Calcutta 700007.

Bengal Refractories Ltd., 32A, Dharamtolla St., Calcutta 700013.

Bhattacharya A.K. Sen Pvt. Ltd., Post Box 2124, Calcutta 700001.

Burn & Co. Ltd., 12, Mission Row, Calcutta 700001.

Harry Refractory & Ceramic Works Pvt. Ltd., Harry House, 640, Rabindra Sarani, Calcutta 700003.

Hind Refractories Ltd., 135, B.R.B. Basu Road, Calcutta 700001.

Hindustan Refractories & Ceramics Pvt. Ltd., 20, N. Subhas Rd., Calcutta 700001.

India Refractories Ltd., Industry House, 23/24, Radhabazar St., Calcutta 700001.

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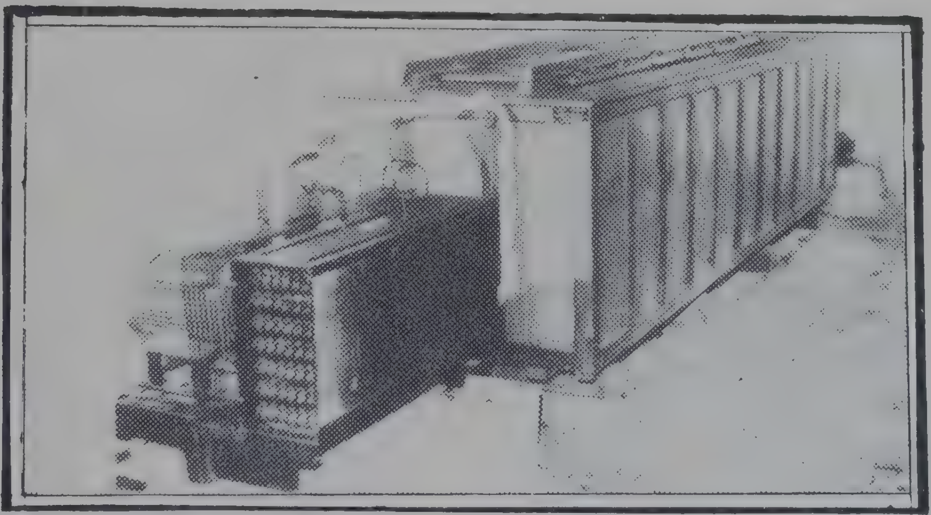

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Marshall Refractories (India), 40, Strand Rd., Calcutta 700001.

Nagrath Firebricks & Potteries Pvt. Ltd., Gandhi House, 16, G. Chandra Ave., Calcutta 700013.

New Bharat Refractories Ltd., 66, G.T. Rd., Liluah 711204. Howrah Dist.

Nirsa Refractory and Ceramic Works, 2A, G.C. Ave., Calcutta 700013.

Reliance Firebricks & Pottery Co. Ltd., 11-12, Esplanade Mansion, Calçutta 700001.

Valley Magnesite Co., 408, Vivekananda Rd., Calcutta 700007.

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Economy Refrigeration & Engg. Pvt. Ltd., Kirti Bldg., Dr. V.B. Gandhi Marg, Bombay 400023.

General Electric Co. of India, Magnet House, B. Estate, Bombay 400038.

Godrej & Boyce Mfg. Co. Pvt. Ltd., Godrej Bhavan, Home St., Bombay 400001.

Hyderabad Allwyn Metal Works Ltd., Sanatnagar, Hyderabad 500018.

Mec (India) Pvt. Ltd., F-3/4, Krishna Nagar, Delhi 110031.

Paramount Industries, Moti Ram Road, Shahdara, Delhi 110032.

Refrigeration Inds., Plot No. 76, Phase II, M.I.D.C. Ind. Area, Andheri (E), Bombay 400093.

Spencer & Co. Ltd., Spencer Bldg., Forjett St., Bombay 400026.

Sur Inds. Pvt. Ltd., 163, A.J. Bose Rd., Calcutta 700014.

Tropical Refrigeration Inds., Kangra Bhavan No. 2, Dr. A. Besant Road, Bombay 400025.

Voltas Ltd., Voltasagar, Chinchpokli, Dr. Ambedkar Rd., Bombay 400033.

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Krishna Inds., Mehrauli Rd., Gurgaon 122001. (Haryana).

Kuick Fasteners, 20, GIDC Estate, Wadhwan City 363030.

Metareacts, G.M. Patil Indl. Estate, Bhayander East 401106. (Thane Dist.).

Neon Auto Agency, 28, Parekh St., Bombay 400004.

Paradise Inds., 18-A, Mayapuri Indl. Area, New Delhi 110064.

Raj Kamal Inds. (Fasteners), 135-C, Govt. Indl. Estate, Charkop, Kandivli West, Bombay 400067.

Ranjit Rivet Inds., 67, Bombay Tąlkies Compd., Malad West, Bombay 400064.

Rivets & Fasteners, 60, Satguru Nanik Indl. Estate, Western Express Highway, Goregaon East, Bombay 400063.

Task Metal Rivets Mfg. Co., 203, Melavasthacha Vedi, Thanjavur 613005. (T. Nadu).

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Escorts Ltd., 11, Scindia House, Con. Circus, New Delhi 110001.

Geometricals Tools Mfg. Co. (India), 105, Apollo St., Bombay 400023.

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Amarsons, 181, Kazi Syed St., Bombay 400003.

B. Thanawala & Sons Pvt. Ltd., 47, Tamarind Lane, Bombay 400023.

East Coast Commercial Co. Ltd., 25-D, Shakespeare Sarani, Calcutta 700016.

G.J. Rassiwala Rope Factory, 44, Clare Road, Byculla, Bombay 400008.

Ganges Rope Co. Ltd., 106, Cowies Ghat Rd., Howrah 711102.

Garware-Wall Ropes Ltd., Chowpatty Chambers, Sandhurst Bridge, Bombay 400007.

Gungadhar Bannerji & Co. Pvt. Ltd., 45, Benares Rd., Howrah 711101.

International Cane Ind., 109, N. Subhas Rd., Calcutta 700001.

International Rope Mfg. Co., Kapasia Bazar, Ahmedabad 380002.

Kurla Rope & Thread Factory, Pipe Rd., Kurla, Bombay 400070.

M.M.A. Rasiwalla & Co., 17, Janjikar St., Bombay 400003.

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Union Rubber Co., 55, G. Patters Rd., Madras 600002.

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Northland Rubber Mills, Rai 131029, Sonepat Dist. (Haryana).

T. Maneklal Manufg. Co. Ltd., Vaswani Mansion, D. Vachha Rd., Bombay 400020.

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Ideal Foams Pvt. Ltd., P.B. No. 192, Vadodara 390001.

J.J. Foams Pvt. Ltd., 224, Okhla Indl. Estate, New Delhi 110020.

Jain & Jayna Foam Udyog, 4, Indl. Area, Tilak Nagar, Pune 411018.

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MM Rubber Co. Pvt. Ltd., 150-B, Mount Road, Madras 600002.

Modern Rubber Mfg. Pvt. Ltd., 12/1B, Lindsay St., Calcutta 700001.

National Tyre & Rubber Co. of India Ltd., 213, Dr. D.N. Rd., Bombay 400001.

Nu-Foam, 39, Jagabhai Park, Kankaria, Ahmedabad 380022.

Pullangode Rubber & Produce Co. Ltd., Calvetty, Cochin 682001.

Sheela Foam Pvt. Ltd., 4/8, Asaf Ali Rd., New Delhi 110002.

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Kale Rubber Works Pvt. Ltd., Dindoshi Express Highway Rd., Bombay 400063.

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Gayatri Indl. Corpn., Dinmani Sadan, R.R.T. Rd., Mulund West, Bombay 400080.

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Richardson & Cruddas (1972) Ltd., Byculla Iron Works, Bombay 400008.

Santosh Inds., A-1, Sona Udyog, Parsi Panchayat Rd., Andheri East, Bombay 400069.

Sohal Engg. Works, Sohal Ind. Estate, L. B. S. Marg, Bhandup, Bombay 400078.

Victory Pumps & Engines Mfg. Co., 69, Govt. Ind. Estate, Kandivli, Bombay 400067.

RUBBER OILSEALS

Delhi

A-Kor Seals, 24, Okhla Ind. Estate, New Delhi 110020.

Bedi Ind. Corpn. (Regd.), 116, D. B. Gupta Market, New Delhi 110055.

India Auto Ind., Patel Motor Market, K. Gate, Delhi 110006.

Mykoda Auto Ind. (Regd.), 2, Krishna Motor Market, K. Gate, Delhi 110006.

Super Seals India Pvt. Ltd., 21, A. Nizammuddin West, New Delhi 110013.

Gujarat

Gasket & Oil Seals Pvt. Ltd., P. O. Box 89, Vadodara 390001.

Maharashtra

Bombay Oilseals Co., Opp. Sanghani Estate, Kachrapatti Rd., Bombay 400086.

Camata Enterprises, 2, M.K. Bros. Indl. Estate, Kurla-Andheri Rd., Bombay 400072.

Cypher Engg. Co., 19/AB, Nandanvan Ind. Estate, Agra Rd., Thane 400604.

Dikson & Co., 8, Bharat House, 104, Apollo St., Bombay 400023.

Gasket Corpn. of India, 7/10, Botawala Bldg., H. Circle, Bombay 400023.

Ghanshyam & Co., 501-3, S. V. Patel Rd., Bombay 400004.

Jmco Rubber Products, 24, Agarwal Indl. Estate, 17, S.V. Rd., Dahisar East, Bombay 400068.

Lotus Rubber Inds., Inside V. G. Mkt., Grant Rd., Bombay 400007.

Pravin Rubber Co., Patil Bros. Indl. Estate, Bhayander East 401101. Thane Dist.

Supreme Washerballs Pvt. Ltd., Sukh Sagar, Hughes Rd., Bombay 400007.

Universal Oil Seals Mfg. Co., 17, Sidhpura Indl. Estate, Masrani Lane, Bombay 400070.

Venus Rubber Works, 43, Kennedy Bridge, Bombay 400004.

Victor Gaskets India Ltd., 20, M.I.D.C. Estate, Satpur, Nasik 422007.

Vidyug Cable & Rubber Inds., 66, Govt. Ind. Estate, Bombay 400067.

West Bengal

American Rubber Mfg. Co., 40, Strand Rd., Calcutta 700001.

India Oil Seals & Synthetic Products, P-36, India Exchange Place, Calcutta 700001.

Industrial Leather & Rubber Works, 10, B. R. B. Bose Rd., Calcutta 700001.

Modern Engg. & Rubber Products, 85, N. Subhas Rd., Calcutta 700001.

Nundlall Inderchand Pvt. Ltd., 10, B. R. B. Bose Rd., Calcutta 700001.

Prankrishna Ind. Pvt. Ltd., 40, Strand Rd., Calcutta 700001.

RUBBER PRODUCTS—MISCELLANEOUS

Andhra Pradesh

Andhra Rubber Ind., D-14 & 15, Indl. Est., Hyderabad 500002.

Deccan Enterprises Pvt. Ltd., B/58-60, A.P.I.E., Balanagar, Hyderabad 500037.

Foam Rubber Factory, Ind. Estate, Chandulal Baradari, Hyderabad 500002.

Stallion Tyres Pvt. Ltd., P9, Indl. Devpt. Area, Nacharam, Hyderabad 501507.

Stanes Tyres & Rubber Products Ltd., 13/90, Pandhi St., Vijayawada 520001.

Sutlej Rubber Ind., 21-1-153, Rikabgunj, Hyderabad 500002.

U-Foam Pvt. Ltd., B-16, Ind. Estate, Sanatnagar, Hyderabad 500018.

Delhi

Apollo Tyres Ltd., Skylark, 4th.Flr., 60, Nehru Place, New Delhi 110019.

Bharat Rubber Ind., 8382, Roshanara Rd., Delhi 110007.

Bindu Rubber Inds. Pvt. Ltd., 12, D.L.F. Indl. Area, Najafgarh Road., New Delhi 110015.

Brickley Engg. Pvt. Ltd., 1590, Daribakalan, Delhi 110006.

Everest Electl. Inds., 18, DLF Ind. Area, New Delhi 110015.

General Rubber Co. Pvt. Ltd., P.B. 490, New Delhi 110001.

Goodyear India Ltd., Godrej Bhavan, 3rd Flr., Mathura Rd., New Delhi 110065.

J. K. Ind. Ltd., 3, Bahadur Shah Zafar Mrg., New Delhi 110002.

Mercury Rubber Mills, 2/7, D. B. Gupta Rd., New Delhi 110055.

Phoenix India Rubber Products, 10184, Amar Palace, A. Samaj Rd., New Delhi 110005.

Saco Rubbers Pvt. Ltd., A-3, Kirti Nagar, Najafgarh Rd., New Delhi 110015.

Sawhney Rubber Inds., B-1, Indl. Estate, G.T. Rd., Shahdara, Delhi 110032.

Shree Bharati Udyog Pvt. Ltd., 6/17, Guru G. S. Marg, New Delhi 110001.

Universal Technical & Commercial Enterprises, P. O. Box 7818, New Delhi 110005.

Goa

Shetye Tyre & Rubber Inds., Bicholim 403504.

Gujarat

Amee Rubber Inds., A1-23, G.I.D.C., Vapi 396195.

Atika Rubber Mills Pvt. Ltd., Commerce House, Dhebar Chowk, Rajkot 360001.

Atul Rubber Ind., Opp. Chakudia Mahadev, Rakhial, Ahmedabad 380021.

Baroda Rubber Ind. Pvt. Ltd., B2668, Gurunath Bhavan, Raj Mahal Rd., Vadodara 390001.

Bharat Casements Pvt. Ltd., P.B. 15, Vadodara 390001.

Bharat Rubber Ind., N. Hanuman Rd., Rakhial, Ahmedabad 380021.

Dinesh Rubber Inds., Rustom Mills Compd., Dudheswar Rd., Ahmedabad 380001.

Gooduse Rubber Products, Raipur Gate, Kankaria Rd., Ahmedabad 380001.

Gujarat Rubber Works Ltd., Dabhoi Rd., Pratapnagar, Vadodara 390004.

Lathia Ind. Supplies Co. Pvt. Ltd., 108, Naroda Ind. Estate, Naroda, Ahmedabad 382330.

MSM Universal Tyre & Rubber Co. Gujarat Ltd., B.M.C. Bank Bldg., Gandhi Rd., Ahmedabad 380001.

National Ind., 8/64, Municipal Ind. Estate, Bapunagar, Ahmedabad 380021.

Simplex Rubber Products Pvt. Ltd., Amraiwadi Rd., Ahmedabad 380008.

Vikas Rubber India, Bedeshwar, Jamnagar 361001.

Haryana

Asia Rubber Mills, Railway Rd., Gurgaon 122001.

Haryana Rubber Inds. Pvt. Ltd., G. T. Rd., Sonepat 131001

Kanishka Tyres & Tubes Ltd., 0/1, Indl. Area, Sonepat 130001.

Karnataka

Bangalore Rubber Ind., C-26, Rajajinagar Ind. Estate, Bangalore 560044.

Dynamic Rubber & Plastic Pvt. Ltd., 494, Rajmahal Vilas Ext., Mahadevapura, Bangalore 560006.

Falcon Tyres Ltd., 5, Crescent Rd., High Grounds, Bangalore 560001.

Rubrofibre Pvt. Ltd., 11, Bore Bank Rd., Bangalore 560046.

Ruby-Maratt, 11, Rajbhavan Rd., Bangalore 560001.

Vikrant Tyres Ltd., 8, H. Siddaiah Rd., Bangalore 560002.

Kerala

Allied Rubber Works Pvt. Ltd., Karapuzha, Kottayam 686001.

Apollo Tyres Ltd., Shanmugam Rd., Cochin 682011.

Associated Fibre and Rubber Ind. Pvt. Ltd., IX/312, A. M. Cross Rd., Cochin 682002.

Good Shepherd Rubber Co., Ind. Estate, Palghat 678002.

Kerala Rubber & Allied Products, Market Landing, Kottayam 686001.

KTC Tyres India Ltd., 18/402, Kallai Rd., Calicut 673002.

Mayfield Rubbers, Market Rd., Cochin 682011.

Navabharata Enterprises Pvt. Ltd., Box No. 54, Cochin 682003.

Nenmany Rubber & Produce Co. Ltd., Ancheri Bldg., Baker Rd., Kottayam 686001.

Ruby Rubber Works Ltd., 7/460, Oyitty Rd., Calicut 673001.

South India Rubber Works, Post Box 302, Alleppey 688001.

Stanes Tyre & Rubber Products Ltd., Nagampadam, Kottayam 686001.

Trivandrum Rubber Works Ltd., Trivandrum 695007.

William Goodacre & Sons (India) Ltd., P.O. Box No. 6, Alleppey 688001.

Madhya Pradesh

National India Rubber Works Ltd., Katni 483501.

Maharashtra

Acharya Ind., 404/A, Waghwadi, Kalbadevi Rd., Bombay 400002.

Akron Rubber Ind., 134, Old Hanuman Lane, Kalbadevi Rd., Bombay 400002.

Alfred Rubber Works, 12A, Parekh Nagar, Indl. Estate, Kandivli West, Bombay 400067.

Arvico Rubber Ind., Khanna Dyeing Comp., 38, Sonawala Estate, Goregaon East, Bombay 400063.

Associated Rubber Ind. Ltd., Union Bank Bldg., Apollo St., Bombay 400023.

Atur Rubber Products, 4, Dr. Ambedkar Rd., Pune 411001.

Autorub Ind., A/112, Wagle Indl. Est., Thane 400604.

B. J. Rubber Ind., 6, Kala Indl. Est., Bombay 400078.

Basant Rubber Factory Pvt. Ltd., 103-B, Bombay-Agra Rd., Vikhroli, Bombay 400083.

Bedrock Tyre & Rubber Co. Pvt. Ltd., 6-B, Court Chambers, 35, New Marine Lines, Bombay 400020.

Bombay Latex and Dispersions Pvt. Ltd., Western India House, Sir P. Mehta Rd., Bombay 400001.

Bombay Rubber Works Pvt. Ltd., Saki Vihar Rd., Bombay 400072.

Bombay Tyres International Ltd., Hay Bunder Rd., Bombay 400033.

Brahans Rubber Pvt. Ltd., 16A, Mahal Estate, Mahakali Caves Rd., Andheri East, Bombay 400093.

Ceat Tyres of India Ltd., 463, A. Besant Rd., Bombay 400025.

Century Rubber & Cable Ind., Sainath Ind. Estate, Kotkar Rd., Goregaon East, Bombay 400063.

Chimanlal L. Vasa, lA, Gokhale Rd., Bombay 400004.

Cosmos India Rubber Works Pvt. Ltd., Behind R.K. Studio, Chembur, Bombay 400071.

Dynamic Rubber & Plastic Pvt. Ltd., 78, Whitefield Rd., Mahadevapura, Bangalore 560048.

Eagle Rubber Ind., Ghatkopar Ind. Estate, Behind Geoffrey Manners, Ghatkopar, Bombay 400086.

Ghanshyam & Co., 501-3, S. V. Patel Rd., Bombay 400004.

Goodyear India Ltd., Mani Mahal, Mathew Rd., Bombay 400004.

Greentose Pvt. Ltd., 24, Dalal St., Bombay 400023.

Hind Rubber Ind. Pvt. Ltd., Suryodaya Mills Comp., Tardeo Rd., Bombay 400034.

Hindustan Rubber Works, 402, Veer Savarkar Marg, Bombay 400025.

Hindustan Tyres Pvt. Ltd., Opp. Agripada Police Station, Dr. A. R. Nair Rd., Bombay 400011.

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J. K. Ind. Ltd., Kasturi Bldg., J. Tata Rd., Bombay 400020.

J. Khushaldas & Co., "JK" Chambers, 78/83, Nagdevi St., Bombay 400003.

Jai Hind Rubber Products Pvt. Ltd., 391-F, Grant Rd., Bombay 400007.

Jayshree Rubber Inds., 187, Princess St., Ground Flr., P.B. No. 2510, Bombay 400002.

Jhikri Industries, 1203, Dalamal Towers, 12th Flr., N. Point, Bombay 400021.

Kale Rubber Works Pvt. Ltd., 56, Bhajipala Lane, Bombay 400003.

Kirti Rubber Works, 205, S. Vivekanand Rd., Jogeshwari, Bombay 400060.

Kohinoor Rubber Products, 380, Bhavani Peth, Pune 411002.

Korula Rubber Co. Pvt. Ltd., 249-B, Worli, Bombay 400018.

Lathia Rubber Mfg. Co. Pvt. Ltd., Saki Naka, Bombay 400072.

Merchant Bros., 151, Nagdevi St., Bombay 400003.

Modak Rubber Products Pvt. Ltd., Kondivitta Village Rd., Bombay 400059.

Oriental Rubber Factory, New Silk Bazar, Kalbadevi, Bombay 400002.

Oriental Rubber Ind. Pvt. Ltd., Agra Rd., Bhandup, Bombay 400078.

Parkman Polymer Inds., Gupta Deshpande Estate, Pokhran Rd. No. 1, Thane 400606.

Picon Pvt. Ltd., 50, Nesbit Rd., Mazgaon, Bombay 400010.

Pioneer Rubber Mills (Bombay) Pvt. Ltd., L. B. Shastri Marg, Bhandup, Bombay 400078.

Poly Rubber Ind., Patanwala Estate, L. B. Shastri Marg, Ghatkopar, Bombay 400077

Precision Rubber Co. (India), Jaya Talkies Bldg., Borivli (W), Bombay 400092.

Precision Rubber Inds. Pvt. Ltd., 401-A, Poonam Chambers, Shivsagar Estate, Dr. A. B. Rd., Bombay 400018.

Premier Rubber & Cable Ind., 211, Nagdevi St., Bombay 400003.

Premier Tyres Ltd., Merchant Chambers, New Marine Lines, Bombay 400020.

Purohit Rubber Works, 13-D, Kurla Indl. Estate, Ghatkopar, Bombay 400086.

Rane Elastomer Processors, 26-27, Agarwal Ind. Estate, S. V. Rd., Dahisar (E), Bombay 400068.

Rubber Industries (India) Pvt. Ltd., Kurla-Andheri Rd., Andheri, Bombay 400069.

Rubber Products Pvt. Ltd., C-44, Wagle Ind. Estate, Thane 400604.

Shreeji Rubber Inds. Pvt. Ltd., 10, Poonam Asa, 317, N. Natha St., Bombay 400009.

Simla Tyres, 216, Pancharatna Bldg., M. Parmanand Mrg., Next to Roxy Cinema, Bombay 400004.

Spare-Age (I) Pvt. Ltd., 9-B, Purshottam Bldg., Tribhuvan Rd., Bombay 400004.

Spartan Rubber Inds., Atur House, 82, Dr. A. B. Rd., Bombay 400018.

Standard Latex Products, 250, Nagdevi St., Bombay 400003.

Supreme Ind. Ltd., Sewri Cross Rd., Wadala, Bombay 400031.

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Pondicherry

Pondicherry Rubber Factory, C-6, Mettupalayam Ind. Estate, Pondicherry 605001.

Punjab

Ashok Rubber Works, Ind. Area, Jullundur 144001.

Bharat Rubber Factory (Regd.), 60, Indl. Area A., Ludhiana 141003.

Prince Rubber Inds., Jullundur 144004.

Ralson Ind., 810, Ind. Area, Ludhiana 141001.

Universal Rubber Ind., Shalimar Garden Rd., Kapurthala 144601.

Rajasthan

Kotah Rubber Inds., Bhimganj Mandi, Kota Junction 324002.

Rajasthan Rubber Ind., C-37, Ind. Estate, Jaipur 302006.

Tamil Nadu

Apex Rubber Pvt. Ltd., 92 Pattulos Rd., Madras 600002.

Automobile Rubber Products Pvt. Ltd., G-8, Ind. Estate, Madras 600058.

General Rubber & Latex Inds., 3/11, Seshachala Gramani Garden St., Madras 600019.

K. N. Chari Rubber & Plastics Pvt. Ltd., D-24, Ambattur Indl. Estate, Madras 600058.

London Rubber Co. India Ltd., 3, Cathedral Rd., Madras 600086.

M. M. Rubber Co. Pvt. Ltd., 150B, Mount Rd., Madras 600002.

Madras Elastomers Ltd., 2, Sterling Ave., Nungambakkam, Madras 600034.

Madras Polymer Ind., 5A/147, Mount Rd., Madras 600006.

MRF Ltd., 826, Anna Salai, Madras 600002.

Nanco Rubber & Plastics Ltd., 215, Thadagam Rd., Velandipalayam,Coimbatore 641025.

Shakthi Rubber Works, 1, Swaminaicken St., Madras 600002.

Srichakra Tyres Ltd., TVS Bldg., West Veli St., Madurai 625001.

Stanes Tyre & Rubber Products Ltd., Trichy Rd., Coimbatore 641018.

Sundaram Inds. Ltd., Usilampatti Rd., Kochadai, Madurai 625016.

Uttar Pradesh

Aliga Rubber Works, 84/8, Fazal Ganj, Kanpur 208001.

Basant Rubber Inds., Gyarpura, F. Sikri Rd., Agra 282002.

Deekay Rubber Inds., 16A, Jainnagar, Meerut 250002.

Goodday Rubber Ind., 97/6, Hira Ganj, Kanpur 208001.

Goodluck Rubber & Allied Ind., D-9, Govt. Ind. Estate, Lucknow 226001.

International Rubber Mills, P.B. 56, Bhagwat Rd., Meerut 250001.

Modi Rubber Ltd., Modipuram 250110 (Meerut Dist.).

Swadeshi Rubber & Gen. Mills, Baghpat Rd., Meerut 250001.

U.P. Tyres & Tubes Ltd., B-17, J. Rd., Sector E. Mahanagar Extn., Lucknow 2260006.

West Bengal

Ajanta Valves & Rubber Ind., 11, Pollock St., Calcutta 700001.

Alexander Pvt. Ltd., 26, Strand Rd., Calcutta 700001.

American Rubber Mfg. Co., 40, Strand Rd., Calcutta 700001.

Azad Rubber Co., 2, New Tangra Rd., Calcutta 700015.

Banik Rubber Inds., 7A, Bentinck St., Calcutta 700001.

Bengal Waterproof Works (1940) Ltd., 41, Shakespeare Sarani, Calcutta 700017.

Bhattacharya Rubber Works (1964) Pvt. Ltd., 174, Jessore Rd., Dum Dum, Calcutta 700055.

Central Rubber Works Pvt. Ltd., 20/B, Tangra Rd., Calcutta 700015.

Crown Rubber Ind. Pvt. Ltd., 3, Saklat Place, Calcutta 700013.

D. Wren & Co., Wardley House, 25, Swallow Lane, Calcutta 700001.

Deepak Rubber Ind., 7, Lyons Range, Calcutta 700001.

Dunlop India Ltd., 57B, Mirza Ghalib St., Calcutta 700016.

Everest Rubber Works, 171A, M. Gandhi Rd., Calcutta 700007.

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Kadar Rubber Mfg. Co. Ltd., 46/B, Theatre Rd., Calcutta 700016.

Kohinoor Rubber Works Pvt. Ltd., 35/1A, Canal East Rd., Calcutta 700011.

Long-Life Rubber Ind., 11-B, Topsia 2nd Lane, Calcutta 700039.

Luna Tyres Pvt. Ltd., 71/1, Canal Circle Rd., Calcutta 700054.

M. S. Rubber Co., 81A, Manicktala St., Calcutta 700006.

McMurry Rubber Works, 5, Mission Row, Calcutta 700001.

New Bharat Rubber Ind. Pvt. Ltd., 17, Paymental Garden Lane, Calcutta 700046.

Paul & Dutta Enterprises, 87/1, J. Mohan Ave., Calcutta 700005.

Phoenix Rubber Works, Old Banaras Rd., Belgachia 700037.

S. G. R. Ind. Pvt. Ltd., 10, The Mall, Dum Dum, Calcutta 700028.

Shree Krishna Rubber Works Ltd., 36, B.T. Rd., 19, R. N. Mukherjee Rd., Calcutta 700058.

Synthetics & Chemicals Ltd., 2, Brabourne Rd., Calcutta 700001.

West Bengal Rubber Works, 67, Canal Circular Rd., Calcutta 700054.

RUBBER—RECLAIMED

Elgi Rubber Products Ltd., Ganapathy, Coimbatore 641006.

Indian Rubber Regenerating Co. Ltd., Plot No. F-2, Wagle Ind. Estate, Thane 400604.

Kerala Rubber & Reclaims Ltd., Carmel Centre, Banerji Rd., Ernakulam, Cochin 682018.

Rubber Reclaim Co. of India Ltd., L-62, Conn. Circus, New Delhi 110001.

Sundaram Inds. Ltd., Rubber Dn., West Veli St., Madurai 625001. (Tamil Nadu).

Supreme Rubber Reclaimers Ltd., 31, Karangalpady, Mangalore 575003.

RUBBER ROLLERS

Akron Rubber Ind., 134, Old Hanuman Lane, Bombay 400002.

Basant Rubber Factory Pvt. Ltd., Basant Court, Opp. Sion Rly. Stn., Bombay 400022.

Bengal Belting Works Ltd., 2, BBD Bagh (E), Calcutta 700001.

Bengal Waterproof Works (1940) Ltd., 41, Shakespeare Sarani, Calcutta 700017.

Bombay Rubber Works Pvt. Ltd., Saki-Vihar Rd., Bombay 400072.

D.P. Rubber Inds., Mani Mahal, 11/21, Mathew Rd., Opera House, Bombay 400004.

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Hindustan Rubber Works, 402, Cadell Rd., Bombay 400025.

Inarco Ltd., 1-A, Foreshore Rd., Bombay 400021.

Industrial Enterprise, Gala No. 5 & 30, Sanjay Bldg. No. 3, Mittal Indl. Estate, Kurla Andheri Rd., Bombay 400059.

Industrial Linings, 547, Kalbadevi Rd., Bombay 400002.

Jyoti Rubber Works, 9/49, Indl. Area, Kirtinagar, New Delhi 110015.

Kirti Rubber Works, 205-207, S.V. Rd., Jogeshwari, Bombay 400060.

Korula Rubber Co. Pvt. Ltd., 249-B, Worli, Bombay 400018.

Lathia Rubber Manufg. Co. Ltd., Saki Naka, Bombay 400072.

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Madras Ind. Linings Ltd., 8, Gilchrist Ave., Madras 600031.

Phoenix India Rubber Products, 64, Mohamedali Road, Bombay 400003.

Rawal Rubber Works Pvt. Ltd., Sukh Sagar, Hughes Road, Bombay 400007.

Rubber Products Pvt. Ltd., 38A, Phase II, Peenya Indl. Area, Bangalore 560058.

Rubber Regenerating & Processing Co., 39-2, Canal West Road, Calcutta 700004

SPASA Rubber Products Pvt. Ltd., 1098, Murari Ghag Mrg., Bombay 400025.

Spasa Spares & Services, 56, Arcot Rd., Saligramam, Madras 600093

Swastik Rubber Products Ltd., Kirkee, Pune 411003.

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Vasant Engg. Pvt. Ltd., Post Box 245, Vadodara 390004.

RUBBER SHEETS

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Associated Rubber & Plastic Works, 1, M. M. Ghosh Road, Calcutta 700028.

B.J. Rubber Inds., 22, N. Dhuru X Lane, Bombay 400003.

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General Rubber Co. Pvt. Ltd., 1/10-B, A. Ali Road, New Delhi 110002.

Hindustan Rubber Works, 402, Cadell Rd., Bombay 400025.

Hindustan Rubber Works Ltd., Ballygunge Stn. Rd., Calcutta 700019.

Kiran Enterprises, 91-B, Sherif Devji St., Bombay 400003.

Kohinoor Rubber Works Pvt. Ltd., 35/1A, Canal East Rd., Calcutta 700011.

Madras Ind. Linings Ltd., 8, Gilchrist Ave., Madras 600031.

McMurry Rubber Works, 5, Mission Row, Calcutta 700001.

Nanco Rubber & Plastics Ltd., 305, A to Z Indl. Estate, Fergusson Rd., L. Parel, Bombay 400013.

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Oriental Rubber Ind. Pvt. Ltd., Agra Rd., Bhandup, Bombay 400078.

Rane Elastomer Processors, 26-27, Agarwal Indl. Estate, S. V. Rd., Dahisar East, Bombay 400068.

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Beekay Rubber Ind., P.O. Rayon Mills, Amritsar 143001.

Bhattacharya Rubber Works Ltd., Jessore Rd., Calcutta 700055.

Everest Rubber Works, Kalibari Rd., Calcutta 700030.

National India Rubber Works Ltd., Katni 483501. (M.P.)

Pioneer Rubber Mills (Bombay) Pvt. Ltd., Agra Rd., Bhandup, Bombay 400072.

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S. Thakore & Co., Nava Darwaja Rd., Ahmedabad 380001.

RUBBER TREAD

Dunlop India Ltd., 57-B, Mirza Ghalib St., Calcutta 700016.

Elgy Tyre & Tread Ltd., Trichy Rd., Coimbatore 641018.

Good Shepherd Rubber Co., Indl. Estate, Olavakkot 678002. Palghat Dist., Kerala State.

Goodyear India Ltd., Ballabhgarh 121004, Haryana.

Inchek Tyres Ltd., 19, J. L. Nehru Rd., Calcutta 700013.

Indag Rubber Ltd., 41/2, M Block, Speedbird House, Conn. Circus, New Delhi 110001.

MRF Ltd., 826, Anna Salai, Madras 600002.

RUBBER TUBING

Anand Rubber & Ebonite Products, Ind. Estate, Satpura, Nasik 422001.

Cekop Rubber Ind. Pvt. Ltd., Rana Pratap Bagh, Kondwa Road, Pune 411001.

Chhaya Engg. Corpn., T-2, Vikram Chambers, Ashram Rd., Ahmedabad 380009.

Cosmos India Rubber Works Pvt. Ltd., 7, Homji St., Bombay 400001.

Foam Mattings India Ltd., Alleppey 680001. (Kerala State).

Helix Latex Ind., C-11, Model Town, Delhi 110009.

Industrial Products, 139-G, S. Vivekanand Road, Bombay 400060.

Kantilal Chhotalal & Co., 22, B. Genu Road, Bombay 400002.

Paul Rubber Works, 9, Ind. Estate, Faridabad 121001.

Tropical Rubber Co., 1, Barreto Lane, Calcutta 700001.

Zenith Rubber & Plastic Works, 91, Mohamedali Rd., Bombay 400003.

RUBBERISED COIR PRODUCTS

Bagdi Enterprises, 301, Parekh Mkt., Opera House, Bombay 400004.

Bharat Motors, 37, Greames Rd., Madras 600006.

Fibre Foam Pvt. Ltd., Viveknagar, Baliapatam 670010 (Cannanore Dist.), Kerala State.

Hastings Mill Ltd., Coir & Felt Dn., 14, Netaji Subhas Rd., Calcutta 700001.

Karnataka Consumer Products Ltd., 3rd Flr., Industry House, 45, Fair Field Rd., Bangalore 560001.

Koirtap Ind. Pvt. Ltd., Mavelikara 690101, Kerala State.

Rubro Fibre Pvt. Ltd., Chungom, Alleppey 688001, Kerala State.

SAFETY APPLIANCES

Adigee Ind., 475, Keyatala Road, Calcutta 700029.

Allibhai Premji Tyrewalla, 205, Bhadkamkar Marg, Bombay 400007.

B. B. Inds., 58, N. S. Road, Calcutta 700001.

B. N. Ghoshal & Sons (Calcutta), 25B, C. R. Avenue, Calcutta 700001.

Bengal Engg. Co. Pvt. Ltd., 12, Dalhousie Sq. East, Calcutta 700001.

Blue Star Corpn. (India), 16, Rupchand Roy St., Calcutta 700007.

Daga Udyog, 41-B, Brajodulal St., Calcutta 700006.

Dharmesh Enterprises, 55, S. V. Rd., Satyanarayan Bhuvan, Borivli West, Bombay 400092.

Fida Traders, 97, Dhaboo St., Bombay 400003.

Francis Leslie & Co., Kakad Indl. Estate, Room No. 140, Lady Jamshedji Road, Mahim, Bombay 400016.

Gopi Textiles & Industrials (India) Pvt. Ltd. (Leather Dn.), 110/112, Rewa Chambers, 31, New Marine Lines, Bombay 400020.

Impex Engg. & Equipment Co., 138, N. Dhuru St., Bombay 400003.

Joseph Leslie & Co., 11/12, Apeejay House, 130, Apollo St., Bombay 400023.

Kiran Trading Co., 81, V. Savarkar Marg, Bombay 400016.

Mehta Sanghvi & Co., 21A, Canning St., Calcutta 700001.

Metasafe Trading Corpn., 65, Apollo St., Bombay 400023.

Mines Service Corpn., Safety House, Ushagram, Asansol 713302. (W. Bengal).

Mohan Indl. Service, 17, Bhavana, Savarkar Marg, Prabhadevi, Bombay 400025.

Nityanand Leather Works, Shankar Gaikwad Chawl No.4, Dharavi, Bombay 400017.

OZR Electro Technis Pvt. Ltd., B-82, N.I.C.E., Satpur, Nasik 422007.

Pradeep Safety Pvt. Ltd., Jamnabai Mansion, 472, Sardar Patel Road, Bombay 400004.

Pratik Inds., P.O. Box 121, Baroda 390001.

Safety Services, 118-119, New B.P.T. Rd., Wadala (E), Bombay 400037.

Sparkweld, 350/352, Grant Road, Bombay 400007.

Subtronics, Kaliandas Udyog Bhavan, 147, Near Century Bazar, Worli, Bombay 400025.

Technoperfect India, 11, Pollock St., Calcutta 700001.

Usha Leather Inds., Pila Bungalow, Dharavi, Bombay 400017.

Weldman Gloves & Inds., 30, Sir H. Goenka St., Calcutta 700070.

SAFETY MATCHES

Golden Match Industries, Bodipet Rd., Gudiyattam 632601.

Gudiyattam Match Industries, Santhapet, Gudiyattam 632601.

Hind Matches Ltd., P. Box 38, Sivakasi 626123.

Kerala Match Syndicate, Post Box 11, Ottapalam 679101.

Meenakshi Match Factory, 139, Elayarasanendal, Kovilpatti 627702. (T. Nadu).

Modern Match Industries, Santhapet, Gudiyattam 632602.

Shri Mahila Griha Udyog Lijjat Pappad (Match. Ind. Dn.), Near Maruti Temple, Agra Rd., Dahanu 401601. (Maharashtra).

Western India Match Co. Ltd., Indian Mercantile Chambers, Nicol Rd., Ballard Estate, Bombay 400038.

SANITARYWARES & FITTINGS

Delhi

Bharat Inds., Shahdara, Delhi 110032.

Civil Engg. Co., Arya Samaj Rd., Karol Bagh, New Delhi 110005.

D.R. Kumar Bros., A-3/15, Asaf Ali Rd., New Delhi 110002.

Develop Pump Ind., F.2/27, Krishna Nagar, Delhi 110051.

Dripless Faucets (India), F-29, Hauz Khas Enclave, New Delhi 110016.

Gayfield & Co., Chawri Bazar, Delhi 110006.

Gem Sanitary Appliances Pvt. Ltd., A-57, Wazirpur Indl. Area, Delhi 110052.

Hind Trdg. & Mfg. Co., Gali Barna, Bara Tooti, Sadar Bazar, Delhi 110006.

Kasting Pvt. Ltd., 31, Karnal Rd., Delhi 110038.

Naveen Ind., C-82, Maya Puri, New Delhi 110064.

Parekh & Co., Chawri Bazar, Delhi 110006.

Sanitary Goods Mfrs., 27, Shivaji Marg, New Delhi 110015.

Somko Metal Inds. (Regd.), 3513, Gali Bajrang Bali, Chawri Bazar, Delhi 110006.

Supra Enterprise, 32-33, Nehru Place, New Delhi 110019.

Vijay Metal Ind., 3684, Chawri Bazar, Charkhewalan, Delhi 110006.

Gujarat

Gujarat Polycrete Pvt. Ltd., Post Box 126, Vadodara 390001.

Khodiyar Pottery Works Ltd., Sihor 364240.

Madhusudan Ceramics, 'Ankur', Near, Dinbai Tower, Ahmedabad 380001.

Swastik Sanitarywares Ltd., 16, GIDC Indl. Estate, Kadi 382715. Mehsana Dist.

Haryana

A.N. Bhaskar Sons, Amar Nagar, Faridabad 121003.

Hindustan Sanitarywares Ind. Ltd., Bahadurgarh 124507.

Metal India Corpn., Plot 345, Sector 24, Faridabad 121001.

Karnataka

Metro Malleable Mfrs. Pvt. Ltd., S.J. Park Road, Bangalore 560002.

Mysore Stoneware Pipes & Potteries Ltd., 80, Sixth Cross Rd., Gandhinagar, Bangalore 560009.

Maharashtra

Amar Brass & Iron Works, 159, S.G. Barve Marg, Bombay 400029.

Anand Machinery Pvt. Ltd., 3 B, Chinchwad Ind. Area, Pune 411019.

Bilmat Sanitary Fittings, 73, N. Master Rd., Bombay 400023.

Fordham Pressings (India) Pvt. Ltd., Bombay Agra Rd., Near Pipe Line, Ghatkopar, Bombay 400086.

Johnson Pedder Pvt. Ltd., Kakad Chambers, Dr. A. Besant Rd., Bombay 400018.

Orissa

Orissa Inds. Ltd., Barang 754005. Cuttack Dist.

Punjab

Ambika Metal Inds., 2116, Sector 15-C, Chandigarh 160016.

Aminchand Bholanath, Tanda Rd., Jullundur 144001.

Batala Engg. Co. Ltd., Grand Trunk Road, Batala 143505.

Tamil Nadu

E.I.D. Parry Ltd., Dare House, Madras 600001.

Hargo Ind., 2A, Ind. Estate, Madras 600058.

Madras Enamel Works Ltd., 65, Sydenham Road, Madras 600003.

Neiveli Ceramics & Refractories Ltd., Vadalur 607303, S. Arcot Dist.

Regal Products Pvt. Ltd., 186, Royapettah High Rd., Madras 600014.

Uttar Pradesh

Sardar Inds., Meerut Rd., Hapur 245101.

West Bengal

Agarwal Hardware Works Pvt. Ltd., 3-A, Shakespeare Sarani, Calcutta 700071.

Ajanta Fibreglass Inds., 24, Brabourne Road, Calcutta 700001.

Allied Agencies (India), 10, N. Chunder St., Calcutta 700012.

Bengal Machinery Co. Pvt. Ltd., 9A, New Tangra Road, Calcutta 700046.

GMB Ceramics Ltd., 25, G.C. Ave., Calcutta 700013.

Hindustan Sanitaryware & Inds. Ltd., 2, Red Cross Place, Calcutta 700001.

Pedlars International, 5, Clive Row, Calcutta 700001.

Soma Plumbing Fixtures Ltd., 2, Red Cross Place, Calcutta 700001.

Thakurdas Sureka Iron Foundry Ltd., 24, Goshala Rd., Howrah 711101.

Viking Corpn., 45, Lenin Saranee, Calcutta 700013.

SCIENTIFIC INSTRUMENTS

(See Instruments, Scientific in this list.)

SCOOTERS, SCOOTERETTES, MOTOR CYCLES, MOPEDS, TWO AND THREE WHEELERS & ACCESSORIES

Andhra Pradesh Scooters Ltd., 18-A, Indl. Development Area, Patancherlu 502320. (*Vijai Pushpak* Scooters).

Aravalli Svachalit Vahan Ltd., 1, Matsya Indl. Area, Desula, Alwar 301030.

Automobile Products of India Ltd., LBS Marg, Bhandup, Bombay 400078. (*Lambretta* Scooters).

Bajaj Auto Ltd., Bombay-Poona Road, Pune 411035. (*Bajaj* Scooters).

Bajaj Tempo Ltd., Bombay-Poona Rd., Pune 411035. (*Hanseat* and *Viking* Tempos; *Matador* 4-seaters).

Bihar Scooters, P.O. Fatwah 803201, Patna Dist. (*Digvijay* Scooters).

Electromobiles (India) Ltd., 48, Kasturba Road, Bangalore 560001.

Enfield (India) Ltd., Madras 600019. (*Enfield, Bullet* and *Crusader* Motorcycles).

Expo Machinery Ltd., Pragati Tower, 26, Rajendra Place, New Delhi !10008.

Escorts Ltd., Motorcycle & Scooter Divn., 19/6, Mathura Road, Faridabad 121001. (*Rajdoot* Scooters).

Girnar Scooters Ltd., Odhav Rd., Ahmedabad 382410.

Globe Accessories Pvt. Ltd., Shanti Nagar Indl. Estate, Vakola, Santa Cruz (East), Bombay 400055.

Hindustan Electro Metallics, Nimmco Tiles Compound, Lalbaug, Bombay 400012. (*Hem* side-car).

Ideal Jawa (India) Pvt. Ltd., Indl. Estate, Mysore 570002. (*Yezdi* Motorcycles).

Identics Ltd., Thodupuzha 685584. (Kerala State).

India Automotive Ltd., Tatanagar 831002. (*Hitodi* Mopeds).

Indian Motorcycles Pvt. Ltd., 1851, 16th Main Rd., III Block, Koramangala Layout, Bangalore 560034.

Karnataka Scooters, 5, Crescent Road, Bangalore 560001.

Kelvinator of India Ltd., Atma Ram House, 7th Flr., 1, Tolstoy Mrg., New Delhi 110001.

Kerala Automobiles Ltd., Post Box 4, Poojapura, Trivandrum 695012.

Kinetic Engg. Ltd., D1 Block, Plot No. 18/2, Chinchwad, Pune 411019.

Perfect Inds. Poona, 37/2C, Shanker Shet Rd., Pune 411037.

Kirloskar Ghatge Patil Auto Ltd., R.S. No. 307A, Uchgaon 416005. (Kolhapur Dist.) (*Laxmi* Mopeds).

Maharashtra Scooters Ltd., C/o Bajaj Auto Ltd., Pune 411035. (*Priya* Scooters).

Majestic Auto Ltd., C-48, Focal Point, Ludhiana 141010.

Mopeds India Ltd., Tirupathi 517501 (A.P.). (*Suvega* Mopeds).

Punjab Scooters Ltd., Nabha 147201.

Ramon Engg. Ltd., Ramon House, 169, Backbay Reclamation, Bombay 400020. (*Ramona* Scooterettes).

Roplas India Ltd., Pimpri, Pune 411018. (*Roplas Companion* Scooters).

Saibaba Scooters, 7, Jai Punit Nagar I, Near Poisar Bus Depot, S. V. Rd., Borivli West, Bombay 400092.

Saund Zweirad Union India Pvt. Ltd., Gwalior 474001. (*Vicky* Mopeds ; *Saund* Motorcycles).

Scooters Kerala Ltd., P.O. Vadackal, Alleppey 688003. (*Digvijay* Scooters; *Vijay Deluxe* Scooters; *Lambro* 3-wheelers).

Scooters India Ltd., Sarojininagar, Lucknow 226002. (*Vijay Super* Scooters & Three Wheelers).

Shree Chamundi Mopeds Pvt. Ltd., 195, Palace Upper Orchards, Bangalore 560080.

Southern Scooters Pvt. Ltd., Madras 600018.

Sundaram Clayton Ltd., Moped Dn., Harita, Post Box. 15, Hosur 635109. (T. Nadu)

Sunrise Auto Inds. Ltd., 25/26, Indl. Estate, Tumkur Rd., Bangalore 560022. (*Badal* 3-wheelers).

Tamil Nadu Mopeds Ltd., Indl. Estate, Guindy, Madras 600032. (*Tansi* Mopeds).

West Bengal Scooters Ltd., 227/1, Acharya J. Bose Rd., Calcutta 700020. (*Digvijay* Scooters).

SCREWS

Anupam Inds., 116, Satguru Nanik Ind. Estate, Goregaon East, Bombay 400063.

Arul Agencies, 48, Linghi Chetty St., Madras 600001.

Ashok Industrial Traders, 50, Bibijan St., Bombay 400003.

Associated Mfrs. (India), 40, Strand Rd., R. No. 9, Calcutta 700001.

AVM Inds., 681, PC Hostel Rd., Chetput, Madras 600031.

Bareja Knipping Fasteners Ltd., 183, Dundahera Indl. Complex, Gurgaon 122001. (Haryana).

Burma Indl. Corpn., G.T. Rd., Putlighar, Amritsar 143001.

C. Manilal & Co., 155, N. Dhuru St., Bombay 400003.

Chimanlal Vadilal & Co., 80, A. Rehman St., Bombay 400003.

Fit Tight Nuts & Bolts Ltd., Old Ashram, M. Vissanji Rd., Bombay 400069.

Ishwar Auto Inds., 35D, Govt. Ind. Estate, Kandivli, Bombay 400067.

Jayendra Traders, 124, N. Dhuru St., Bombay 400003.

Kalra Tools, 19, Neel Gagan, 7th Rd., Santacruz East, Bombay 400055.

Kamdhenu Indl. Service, Pan Baug, Chakala, Andheri Kurla Rd., Bombay 400093.

Lakshmi Precision Screws Ltd., 23A, N. Subhas Rd., 7th Flr., Room 24, Calcutta 700001.

Maharashtra Fasteners, 'Purnima', Waman Rao Sawant Rd., Dahisar East, Bombay 400068.

Mahavir Agencies, 8/13, Nivetiya Rd., No. 6, Hawaldar Chawl, Malad East, Bombay 400064.

Manekji Clips Mfg. Co., 99/100, L. B. S. Mrg., Bhandup, Bombay 400078.

Microw Screw Mfg. Co., Purnima Bldg., W. S. Rd., Dahisar East, Bombay 400068.

National Screw & Wire Products Ltd., 51, Stephen House, 4, Dalhousie Sqr. East, Calcutta 700001.

Neeta Inds., 2, Saraswati Bhuvan, M. G. Rd., Ghatkopar West, Bombay 400086.

Pentagon Screws & Fasteners Ltd., Jayem House, 97/99, Apollo St., Bombay 400023.

Perfect Fasteners Pvt. Ltd., 1/43, DLF Indl. Area, Faridabad 121003, (Haryana).

Precision Fasteners Ltd., 17, Cooperage Rd., Bombay 400039.

Ranjit Rivet Ind., 62, B. T. Compd., Malad West, Bombay 400064.

Supreme Screws Inds., 59/14A, 4th Main, Indl. Town, Rajajinagar, Bangalore 560044.

Universal Screw Factory Pvt. Ltd., G. T. Road, Chheharta 143105, (Punjab).

Virani Fasteners & Bolts Pvt. Ltd., Aji Ind. Area, Rajkot 360003.

Vora Fasteners, 93, N. Dhuru St., Bombay 400003.

SEALS & SEALING PRODUCTS

Anabond Corpn., V. S. instronic Campus, Tiruvanmiyur, Madras 600041.

Durametallic (India) Ltd., 147, Karapakkam Village, Madras 600076.

Jhindal Inds., 52, Gantz Rd., Madras 600012.

Mars Seal Pvt. Ltd., 66-C. Mittal Court, 6th Flr., N. Point, Bombay 400021.

Sealol Hindustan Ltd., Noble Chambers, 5th Flr., S. A. Brelvi Rd., Bombay 400001.

SEWING MACHINES

Andhra Pradesh

Hyderabad Allwyn Ltd., Allwyn Bhavan, Erragadda, Hyderabad 500018.

Hyderabad Engg. Industries, Balanagar Township, Hyderabad 500037.

National Sewing Machine Co., 15-4-51, Gowliguda Chaman, Hyderabad 500012.

Standard Engg. Works, 19/1, Ind. Area, Azamabad, Hyderabad 500020.

Delhi

Delhi Sewing Machine Co., Pvt. Ltd., Qabul Nagar, Shahdara, Delhi 110032.

Jukie (India) Pvt. Ltd., B-72, Naraina Indl. Area, Phase II, New Delhi 110028.

Leader Sewing Machine Co., A/85/2, Indl. Area, Phase I, Naraina, New Delhi.110028.

Mahabir Export & Import Co. Pvt. Ltd., G. T. Rd., Shahdara, Delhi 110032.

Peter Engg. Co., 29, Beadonpura, Karol Baugh, New Delhi 110005.

Rama Sewing Machine Co., 4168, Nai Sarak, Delhi 110006.

Sansar Machines Ltd., G. T. Rd., Shahdara, Delhi 110032.

Gujarat

Vijay Sewing Machines Co., Ashapuri Rd., Navsari 396445.

Haryana

British Machinery Supplies Co., 17A, New Ind. Township, Faridabad 121001.

Karnataka

All India Sewing Machine Co., Cauvery Bhavan, K.G. Rd., Bangalore 560009.

Maharashtra

Anson (India), 605, Girgaum Rd., Bombay 400002.

Bharucha Sewing Machine Co., 238, S. V. Patel Rd., Opp. Alankar Cinema, Bombay 400004.

Rajaram V. Tarphe & Co., 29/37, Padhye Wadi, Bhavanishankar Rd., Bombay 400028.

Imperial Sewing Machine Mfg. Co., 282, Sardar V.P. Road, Bombay 400004.

Indian Sewing Machine Co. Ltd., Singer Bldg., 207, Dr. D. Naoroji Rd., Bombay 400001.

Punjab

Amar Electric & Mechanical Engg. Works, G. T. Rd., Millerganj, Ludhiana 141003.

C. R. Aulack & Co., 426, Ind. Area, G. T. Rd., Ludhiana 141003.

Giobind Ram & Sons, Millerganj, Ludhiana 141003.

Panesar Mechanical Works Pvt. Ltd., Ind. Area, Gill Rd., Ludhiana 141003.

Pt. Ramji Das Harbans Lal (Regd.), Sewing Machine Works, Bastti Pathanam, Patiala 147001.

Rico Inds., B-26, Focal Point, Ludhiana 141010.

Rita Mechanical Works, Ind. Area, Ludhiana 141003.

Rajasthan

Krishi Vyawastha, 366, Subzi Mandi, Johari Bazar, Jaipur 302003.

Tamil Nadu

BMSC's Zenith Sewing Machine Works, 653, Mount Rd., Thousand Lights, Madras 600006.

British Machinery Supplies Co., 136, Mount Rd., Madras 600006.

Paul Bros. & Co., 2/130, Mount Rd., Thousand Lights, Madras 600006.

Sharda Machinery Corpn., G. S. Trunk Rd., Chromepet, Madras 600044.

West Bengal

Jay Engg. Works Ltd., 183, A.P., Anwar Shah Rd., Calcutta 700031.

Lotus Ind., 15, Stark Rd., Liluah 711204. Howrah Dist.

SEWING THREAD

Alexander Thread Co., P. Box No. 5, Mettur Dam 636402. Salem Dist. (T. Nadu).

Bharmal Thread Works, 10, Saifee Jubilee St., Bombay 400003.

Dawn Mills Co, Ltd., Lower Parel, Bombay 400013.

India Ball Thread Co. Pvt. Ltd., 2/C, J. Mullick Rd., Calcutta 700006.

Ishwardas & Co., 2, Sutar Chawl, Bombay 400002.

Lukmanji Musaji Sutarwala, 41, Nagdevi St., Bombay 400003.

Madura Coats Ltd., 81, Palton Rd., Bombay 400001.

Mahavir Spg. Mills Ltd. (Vardhman Threads Dn.), 201, Surya Kiran, K. Gandhi Mrg., New Delhi 110001.

Modern Threads (India) Ltd., Village Raila 311024. Bhilwara Dt. (Rajasthan).

Modi Thread Mills, Modinagar 201201. U.P.

Punjab Soot Gola Factory, Sadar Bazar, Delhi 110006.

Rukmini Sewing Thread Co. Ltd., Silaiman, Madurai 625201. (T. Nadu).

Shomashri Threads Pvt. Ltd., 3/10R, 11th Flr., Navjivan Socy., Lamington Rd., Bombay 400008.

Surya Trading Co., Gandhi Chowk, Tenali 522201. (A.P.).

SILICA & SILICATES

Allied Silicate Inds., RIC House, Off Tank Rd., Bhandup, Bombay 400078.

Bombay Silica Pvt. Ltd., Kasara St., Darukhana, Bombay 400010.

Indian Fused Quartz Pvt. Ltd., A/110, Indl. Estate, Peenya 2nd Stage, Bangalore 562140.

Silicates and Catalysts, 7, Indl. Estate, M. N. R. Engg. Coll., Allahabad 211004.

Sil-Tech. Products, 52-4, Ind. Colony, Naini, Allahabad 211008.

SILICONES

Reliance Silicones (India) Pvt. Ltd., 95, Mittal Towers B, 210, N. Point, Bombay 400021.

SILK & ART SILK MILLS

Andhra Pradesh

Sirsilk Ltd., Sirpur Kagaznagar 504296.

Delhi

D. C. M. Silk Mills, Najafgarh Rd., New Delhi 110015.

Gujarat

Artex Manufg. Co., New Cotton Mills, No. 1 Comp., Outside Rajpur Gate, Kankaria Rd., Ahmedabad 380001.

Crown Silk & Rayon Mills Pvt. Ltd., Sobhraj Park, 208, Nicol Rd., Ahmedabad 380001.

Dhamanwala Silk Mills, Udhana Rd., Khatodare, Surat 395002.

Diamond Silk & Rayon Mills, Nicol Rd., Ahmedabad 380002.

Garden Silk Mills Pvt. Ltd., Rampura Tanki, Surat 395003.

Mehta Silk Mills Pvt. Ltd., P. B. 32, Bilimora 396321.

Prabhat Silk & Cotton Mills Co. Ltd., Bella Mills Compound, Surat 395001.

Prabhu Silk Mills, Vasta Devdi, Surat 395003.

Standard Silk Mills, Lal Darwaja, V. Devdi Rd., Surat 395003.

Sundershan Silk Mills Ltd., Plot 1102, III Phase, GIDC, Vapi 396195.

Wintex Mills, Lal Darwaja, Station Rd., Surat 395001.

Madhya Pradesh

Gwalior Rayon Silk Mfg. (Weaving) Co. Ltd., P.O. Birlanagar, Gwalior 474004.

Maharashtra

Alliance Silk Mills. Atlas Mills Comp., Reay Rd., Bombay 400010.

Amar Silk Mills, New Islam Mills Comp., Currey Rd., Bombay 400013.

Ambika Silk Mills Co. Ltd., Bapat Mrg., Bombay 400013.

Anant Silk Industries, 53, Chhipi Chawl, Bombay 400002.

Ashok Silk Mills, Agra Rd., Near Dargah, Ghatkopar, Bombay 400077.

Asian Rayon Mills, New Islam Mills Comp., Currey Rd., Bombay 400013.

Bhaichand Textile Mills, Agra Rd., Bhandup, Bombay 400078.

Bharat Silk Mills Ltd., Opp. Kumari Village, Agra Rd., Kurla, Bombay 400070.

Bharat Vijay Velvet & Silk Mills, Near Saphed Pool, Kurla-Andheri Rd., Kurla, Bombay 400072.

Bipin Silk Mills Pvt. Ltd., 12, Dadar Rd., Kasturchand Mills Comp., Dadar, Bombay 400028.

Bombay Silk Mills Pvt. Ltd., Ind. Estate, Lalbaugh, Bombay 400012.

Cadell Weaving Mill Co. Pvt. Ltd., 211/213, Kalbadevi Rd., Bombay 400002.

D. V. Industries, Bhau Saheb Desai Wadi, B. Shankar Rd., Dadar, Bombay 400028.

Dhana Singh Silk Mills Pvt. Ltd., Vazir Glass Lane, J.B. Nagar, Andheri East, Bombay 400059.

Dhanamall Silk Mills Pvt. Ltd., Dadi Mansion, Cinema Rd., Bombay 400020.

Eldee Velvet & Silk Mills, Opp. Bawalla Mosque, Delisle Rd., Parel, Bombay 400013.

Ellora Silk Mills Pvt. Ltd., Kashmira, S. Vivekanand Rd., Bhayandar 401101. Thane Dist.

Haren Textiles Pvt. Ltd., Opp. Check Naka, Dahisar, Bombay 400068.

Harshad Textile Mills Pvt. Ltd., Sadhana Rayon House, Dr. D. Naoroji Rd., Bombay 400001.

Himdoot Weaving & Finishing Mills Pvt. Ltd., Saki Vihar Rd., Powai, Bombay 400072.

Jaifabs Rayon Industries Pvt. Ltd., Shastri Marg, Bombay 400086.

Jasmine Mills Pvt. Ltd., Dharavi, Bombay 400017.

Kailash Silk Mills, Jivan Mills Comp., Andheri-Kurla Rd., Sakinaka, Bombay 400072.

Kamala Silk Mills, 31, Silk House, Hamalwadi Corner, Girgaum Rd., Bombay 400002.

Khanna Silk Mills Ltd., Silk House, Silk Bazar, P. B. 2174, Bombay 400002.

Kiran Silk Mills Ltd., Kasturchand Mills Comp., Dadar, Bombay 400014.

L. D. Weaving Industries Pvt. Ltd., Mehra Estate, Agra Rd., Vikhroli, Bombay 400079.

Liberty Silk Mills Pvt. Ltd., Bharat House, 104, Apollo St., Bombay 400023.

Mahendra Silk Mills Ltd., 105/107, Tambakanta, Bombay 400003.

Manhar Mills Ltd., Framji Petit Mills Comp., Reay Rd., Bombay 400010.

Mohanlal Silk Mills, Atlas Mills Comp., Reay Rd., Bombay 400010.

Nanikram Sobhraj Mills Ltd., 79, Karve Rd., Bombay 400020.

National Art Silk Mills Ltd., Old Kasturchand Premises, Dadar, Bombay 400028.

New Era Fabrics Pvt. Ltd., Mogul Lane, Mahim, Bombay 400016.

New India Rayon Mills Co. Ltd., Mathuradas Mills Comp., Lower Parel, Bombay 400013.

New Mahalaxmi Silk Mills Ltd., Mathuradas Mills Comp., Lower Parel, Bombay 400013.

New Oriental Silk Mills Pvt. Ltd., Shree Nath Bhavan, 27, Picket Rd., Cross Lane, Bombay 400002.

New Vinod Silk Mills Pvt. Ltd., Kasturchand Mills Estate, Dadar, Bombay 400028.

Orkay Silk Mills Pvt. Ltd., Andheri Kurla Rd., Sakinaka, Bombay 400072.

Panalal Silk Mills Ltd., Atlas Mills Comp., Reay Rd., Bombay 400010.

Paragon Textile Mills, Globe Mills Passage, Bombay 400013.

Podar Silks & Synthetics Ltd., Podar Chambers, Syed A. Brelvi Rd., Bombay 400001.

Premco Silk Industries, A-15/16, M. I. D. C., Marol, Andheri (E), Bombay 400059.

Premier Silk Mills, Nandhbhuvan Ind. Estate, M. Caves Rd., Andheri East, Bombay 400093.

Radha Silk Mills, 30, Parsi Panchayat Rd., Andheri West, Bombay 400059.

Rayon Textiles Mfg. Co., 771, Mogul Lane, Mahim, Bombay 400016.

Reliance Textile Industries Pvt. Ltd., Court House, Tilak Marg, Dhobi Talao, Bombay 400002.

Ruby Mills Ltd., Lady Jamshedji Rd., Dadar, Bombay 400028.

S. A. R. Silk Industries, Sonal Indl. Estate, Saki Vihar Rd., Bombay 400072.

Sadhana Textile Mills Pvt. Ltd., Sadhana Rayon House, Dr. D. Naoroji Rd., Bombay 400001.

Samarth Velvet Manufg. Co., Kanjur Village Rd., Bhandup, Bombay 400078.

Samraat Silk Mills, L. B. Shastri Marg, Vikhroli, Bombay 400079.

Sarvodaya Silk Mills, Agra Rd., Old Kurla, Bombay 400070.

Satish Textiles Pvt. Ltd., 56, Champa Galli, Opp. M. J. Market, Bombay 400002.

Silk Industries (I.), Mehra Ind. Comp., Kurla-Andheri Rd., Bombay 400072.

Siyaram Silk Mills Ltd., 18/24, Nandlal Rd., Wadi Bunder, Bombay 400009.

Subhash Silk Mills, Kurla-Andheri Rd., Sakinaka, Bombay 400072.

Usha Prints (I.) Pvt. Ltd., Mehra Estate, Agra Rd., Vikhroli, Bombay 400079.

Uttar Pradesh

Modi Rayon & Silk Mills, Modinagar 201204.

Shree Silk Mills, C-30/35/D-1, Maldehiya, Varanasi 221001.

West Bengal

Calcutta Silk Mfg. Co., 135-A, B. R. Basu Rd., Calcutta 700001.

Eastern Silk Mfg. Co. Pvt. Ltd., 19, R. N. Mukherjee Rd., Calcutta 700001.

Sarat Textiles Ltd., 9, B. Trunk Rd., Calcutta 700002.

Shri Ram Silk Mfg. Co., Rishra 712248. Hooghly Dist.

SILOS

Shirke-Prive-Reimbert Silos Pvt. Ltd., 72-76, Mundhwa, Pune 411036.

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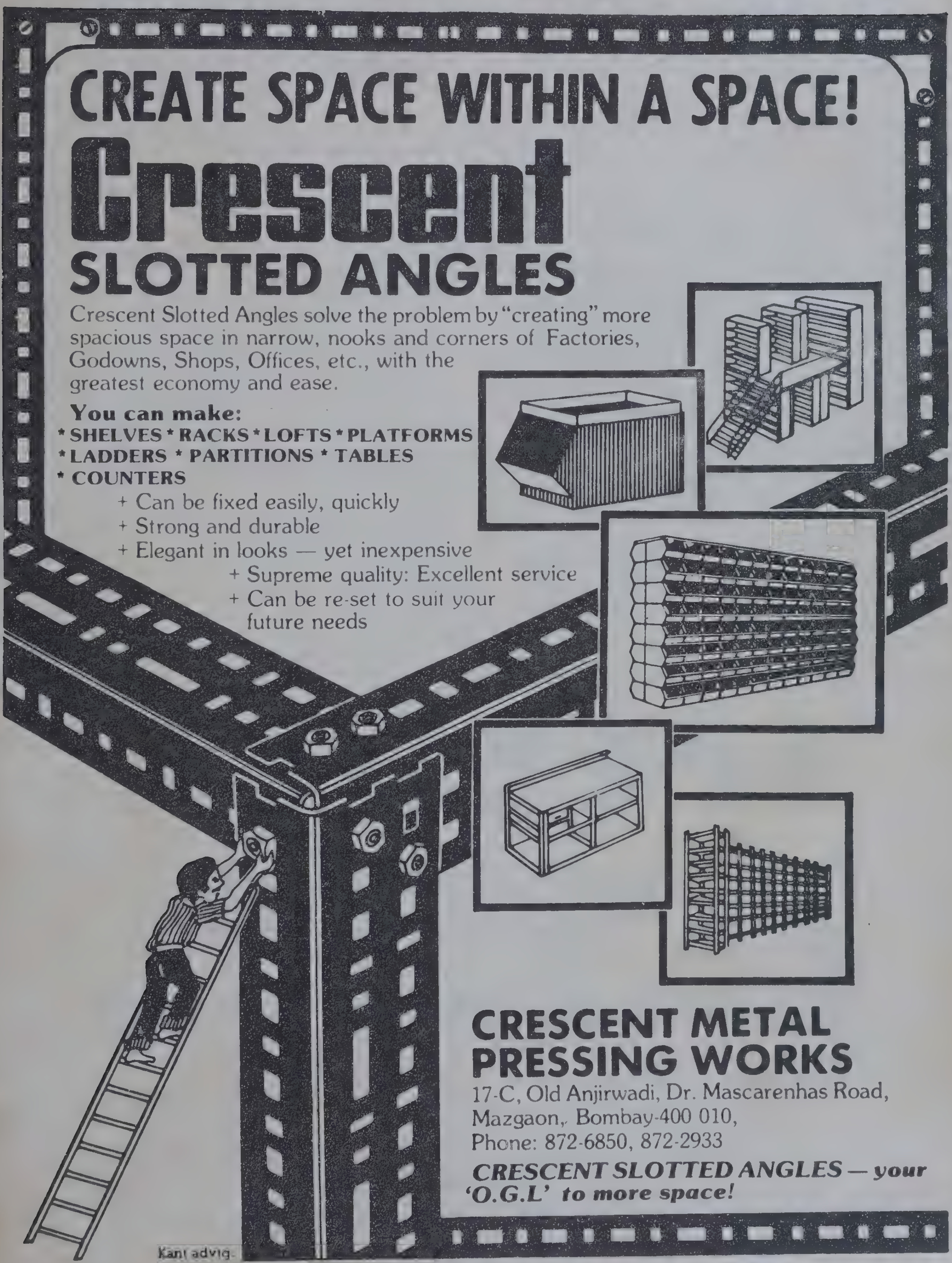
Calcutta Fan Works Pvt. Ltd., 30, Chowringhee Rd., Calcutta 700016.

G. R. Electrical Ind., 110, Ripon St., Calcutta 700016.

Jetha Drums & Containers Pvt. Ltd., Opp. Byculla Goods Depot, Bombay 400027.

Kheraj Electrical Inds., 32, Tavawala Bldg., 2nd Floor, Lohar Chawl, Bombay 400002.

Ladhan Electrical & Manufg. Co., 18, Rabindra Sarani, Calcutta 700001.



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Target Electricals, 147, Lohar Chawl, Bombay 400002.

Veejay's Trading Corporation, Ahmed Bldg., 49/51, Lohar Chawl, Bombay 400002.

Vijay Lakshmi Electric Co., Sitaram Bldg., 37, Dr. D. Naoroji Rd., Bombay 400001.

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Crescent Metal Pressing Works, 17-C, Old Anjirwadi, Mount Rd., Mazgaon, Bombay 400010.

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Filex Systems, Hornby Bldg., 172/74, Dr. D.N. Rd., Bombay 400001.

Fit Right Slotted Angles Mfg. Co., Eastern Chambers, Poona St., Bombay 400009.

Fix-O-Well, Ghanshyam Ind. Estate, Veera Desai Rd., Andheri West, Bombay 400058.

Fleet Fasteners Pvt. Ltd., Delstar, 9-9A, S. Patkar Mrg., Bombay 400036.

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Intermark, P. Box 447, A-16, Wagle Industrial Estate, Thane 400604.

Jay Engg., Kasturchand Mill Estate, Bhavani Shankar Rd., Dadar, Bombay 400028.

Killick Slotted Angles Ltd., Kurla-Powai Rd., Bombay 400072.

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Mahavir Engrs., 44/1, Ghanshyam Indl. Estate, V. D. Rd., Andheri West, Bombay 400058.

MEK Engg. Works Ltd., 3, Broach St., Bombay 400009.

Metalware Inds., C-8, Ind. Estate, Moula Ali, Hyderabad 500040.

Metrex Pvt. Ltd., Sunder Estate, Near Kamani, Kurla, Bombay 400070.

Modern Inds., No.66, 3rd Cross, Robertson Block, Ramachandrapuram, Bangalore 560021.

Natvar Iron & Steel Co., 113, Atlanta, N. Point, Bombay 400021.

Panama Sales (India), 159, Sadar Patrappa Rd., Bangalore 560002.

Pilco Marketing & Mfg. Corpn. (India), 2/30, Ansari Rd., Daryaganj, New Delhi 110002.

Rals (India), 262, Lokmanya Tilak Mrg., Bombay 400002.

Rolex (India) Engg. Co., 110/6, S. Bapat Mrg., Bombay 400016.

S. S. Fabricators & Dealers, 89/1, J. C. Rd., Bangalore 560002.

Sarada Agencies, 1/155, Mount Rd., Madras 600002.

Simplex Udyog, 11, Indl. Estate, Bhilai 490001 (M. P.).

Slotco Steel Products, 3-UA, Jawaharnagar, Delhi 110007.

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Foods, Fats & Fertilisers Ltd., Tadepalligudem 534101.

Jayalakshmi Oil & Chemical Inds. Ltd., P.B. 216, Arundulpet, Guntur 522002.

Rama Krishna Soap Factory, Old Bhoiguda, Secunderabad 500003.

Bihar

Anand Chemical Ind., Kachisarai, Muzaffarpur 842001.

Delhi

D. C. M. Chemical Works, Majafgarh Rd., New Delhi 110015.

Universal Perfumery Co., 5643, Gandhi Market, Sardar Bazar, Delhi 110006.

Gujarat

Sanjay Oil Cake Inds., Bedeshwar, Jamnagar 361002.

Karnataka

Acme Soap Works, 42/1, 'Rathnagopal' 14th Cross, Margosa Rd., Bangalore 560003.

Desi Soap Works, Sampangi Tank Rd., Bangalore 560002.

Mallya Soap Works, Post Box No. 709, Mangalore 575003.

Manyam & Co., Raja Snow Bldg., Seshadripuram, Bangalore 560020.

Margarine & Refined Oils Co. Pvt. Ltd., 125/1, Mysore Rd., Bangalore 560026.

Miltan Chemeplas Corpn., 17/18, Small-Scale Ind. Area, Rajajinagar, Bangalore 560010.

Kerala

Diamond Soap Works, Palace Rd., Cochin 682002.

S. V. Products, Irinjalakuda 680121.

Maharashtra

Agra Soap & Chemical Works, Mount Rd., Bombay 400010.

Bombay Soap Factory, Ahmed Oomer St., Two Tanks, Bombay 400008.

C. C. Mahajan & Co., 79, Sutar Chawl, Bombay 400002.

Colgate-Palmolive (I.) Pvt. Ltd., Steelcrete House, Dinshaw Vachha Rd., Bombay 400020.

D. D. Shah & Co., Damodar Bldg., 105, Princess St., Bombay 400002.

Devka Chemical Works, 322-27, New Mill Rd., Kurla West, Bombay 400070.

E. S. Patanwala, Patanwala Ind. Estate, Bombay-Agra Rd., Ghatkopar, Bombay 400077.

General Detergents, 38. Podar Chambers, S. A. Brelvi Rd., Bombay 400001.

Godrej Soaps Ltd., Eastern Express Highway, Vikhroli, Bombay 400079.

HICO Products Pvt. Ltd., Mogal Lane, P. B. 6467, Bombay 400016.

Hindustan Lever Ltd., 165/166. Backbay Recl., Bombay 400020.

J. K. Helene Curtis Ltd., J. K. Bldg., N. Morarjee Mrg., Bombay 400038.

Lakme Ltd., Bombay House, 24, Homi Mody St., Bombay 400023.

Muller & Phipps (India) Pvt. Ltd., Queen's Mansion, Bastion Rd., Bombay 400001.

Poona Soap Factory, 129, Bhavani Peth, Pune 411002.

S. H. Kelkar & Co. Pvt. Ltd., L. B. Shastri Marg, Mulund, Bombay 400080.

Stepan Chemicals Ltd., Liberty Bldg., Sir Vithaldas Thakersey Marg, Bombay 400020.

Swastik Oil Mills Ltd., 13, W. Hirachand Marg, Bombay 400038.

Tata Oil Mills Co. Ltd., 24, Homi Modv St., Bombay 400023.

Vivek Oil & Soap Inds., A-1, Sidhpur Ind. Co-op. Estate Ltd., L. B. S. Mrg., Bombay 400077.

Punjab

Oswal Agro Mills Ltd., G.T. Rd., Sherpur, Ludhiana 141003.

Tamil Nadu

Cholayil Pharmaceuticals, 1, Palayakara St., Madras 600023.

Ganga Works, Lattice Bridge Rd., Adyar, Madras 600020.

Madras Vanaspati Ltd., 86, S. N. Chetty St., Madras 600013.

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Uttar Pradesh

Amrit Banaspati Co. Ltd., Amritnagar, Ghaziabad 201001.

Modi Soap Works, Modinagar 201201.

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West Bengal

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Bangaluxmi Soap Works, 7, Chowringhee Rd., Calcutta 700013.

Bengal Chemical & Pharmaceutical Works Ltd., 6, G. C. Ave., Calcutta 700013.

Calcutta Chemical Co. Ltd., 35, Panditia Rd., Calcutta 700029.

Calcutta Soap Works, 'Calsopark', Tiljala 700039. 24 Parganas Dist.

Chasme Chemical Co. Pvt. Ltd., 37, Sardar Shankar Rd., Calcutta 700028.

Himani Pvt. Ltd., 3, Khelat Babu Lane, Calcutta 700002.

Hindustan Development Corpn. Ltd., Hindu Family Bldgs., 27, Sir R. N. Mukherjee Rd., Calcutta 700001.

Howrah Chemical Co., 53/12/2, B. B. Bose Rd., (Ramkristopur), Howrah 711101.

John Paterson & Co. (I) Ltd., 96, Garden Reach Rd., Calcutta 700023

Kusum Products Ltd., Bombay Mutual Bldgs., 9, Brabourne Rd., Calcutta 700001.

Model Soap Co., Mehta Bldg., 55, Canning St., Calcutta 700001.

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Pennwalt India Ltd., Signal Hill Annexe, Tank Rd., Sewri, Bombay 400033.

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Bajaj Electronics, 323, Unique Ind. Estate, Off V. Savarkar Marg, Bombay 400025.

Cinerama Pvt. Ltd., Metro House, M.G.Rd. Bombay 400020.

Interwood Decor Pvt. Ltd., 137, Dhanji Shamji Indl. Estate, LBS Mrg., Vikhroli, Bombay 400083.

PDR Videotronics (India) Pvt. Ltd., 99, Old Prabhadevi Rd., Bombay 400025.

Philips India Ltd., Shivsagar Estate, Dr. A. Besant Rd., Bombay 400018.

Photophone Pvt. Ltd., 7, Saki Vihar Rd., Bombay 400072.

Sonodyne Corpn., 7, S. Roy Rd., Calcutta 700034.

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Lightway Sports Co., 199, Mount Rd., Madras 600002.
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Pioneer Sports Works Pvt. Ltd., 292, Tilak Mrg., Dhobitalao, Bombay 400002.

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Baker Engg. Co., 35, Nagdevi St., Bombay 400003.
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Manik Machinery Mfrs. Pvt. Ltd., 21 Sona Udyog, Parsi Panchayat Rd., Andheri East, Bombay 400069.
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National Metallizing & Engg. Co., 8, R. N. Mukerjee Rd., Calcutta 700001.
Schori Blasting & Metal Spraying Co., 100/104, N. Master Rd., Bombay 400023.
Sigma Steel Inds. (Regd.), A-2, Indl. Estate, Ludhiana 141003.
Statfield Equipments Pvt. Ltd., A-54/55, H Block, MIDC, Pune 411018
Thermax Pvt. Ltd., Surface Coating Divn., Thermax House, Bombay Pune Rd., Pune 411005.
Trinity Metal Ind., A-5, Coop. Ind. Estates Ltd., Balanagar, Hyderabad 500037.

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Rockson Springs (India), C-27, Indl. Estate, Sanatnagar, Hyderabad 500018.
Torison Products, Uppal Rd., Hyderabad 500007.

Bihar

H.S.Spring Mfg. Co., Court Rd., Giridih 815301.

Delhi

Ganesons Machinery Corpn., A-25, Indl. Area, Naraina, New Delhi 110028.
Goldfield Mfg. Co., 22, Gupta Motor Mkt., Kashmere Gate, Delhi 110006.
Hindustan Spring Mfg. Co., 3740, Gali Hakiman, H. Qazi, Delhi 110006.
Manasmann International Pvt. Ltd., 2730, Kashmere Gate, Delhi 110006.
Murarka Engg. Works, 28/37, Najafgarh Rd., New Delhi 110015.
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Automech Engrs. Pvt. Ltd., Pokhran Rd., Jekegram, Thane 400606.
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Crescent Springs, 173, Nandanvan Ind. Estate, Thane 400604.
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Fairfield Mfg. Co., Aman Chambers, 113, M. Parmanand Marg, Bombay 400004.
Forbes Forbes Campbell & Co. Ltd., Forbes Bldg., Charanjit Rai Mrg., Bombay 400001.
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Harry Inds., 209, Sati Ind. Estate, I. B. Patel Rd., Goregaon West, Bombay 400063
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Indo-Spring Inds., Akash Deep, French Bridge, Bombay 400007.
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Modern Spring Works, 43, Khandia St., Nr. Two Tanks, Bombay 400008.

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Paras Engg. Co., Ghatkopar Ind. Estate, Unit No. C-11A, L. B. S. Mrg., Bombay 400086.

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R.K. Engg. Co., 12, Bell Lane, Bombay 400023.

Rainbow Ind., 87, S. Vivekanand Rd., Bombay 400056.

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Shree Shakti Iron Works, 54, Sutar Chawl, Bombay 400002.

Spring & Auto Corpn., 431, Bhadkamkar Marg, Bombay 400004.

Standard Spring & Metal Pressing Works, Opp. Indian Oxygen Ltd., Ghatkopar, Bombay 400086.

Super Coil Spring Mfg. Co. Pvt. Ltd., Vidyanagari, Santa Cruz East, Bombay 400055.

Supreme Washerballs Pvt. Ltd., Sukh Sagar, N. S. Patkar Marg, Bombay 400007.

Swastik Industrial Works, 122, N. Dhuru St., Bombay 400003.

Texo Agencies, 12, Noble Chambers, S.A. Brelvi Rd., Bombay 400001.

Union Mfg. Co., UMC Estate, Chakala Rd., Andheri (E), Bombay 400069.

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Punjab

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Rajasthan

Spring (Rajasthan) Mfg. Co., Tank Rd., Jaipur 302004.

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Southern Automatic Ind. Pvt. Ltd., Super B-2, Indl. Estate, Guindy, Madras 600032.

South India Spring Mfrs., 36, Patel Rd., Coimbatore 641009.

Uttar Pradesh

Coiltech (India) Pvt. Ltd., 13/391B, Civil Lines, Kanpur 208001.

Frontier Springs Pvt. Ltd., E-14, Panki Indl. Area, Site 1, Kanpur 208022.

Lallco India Pvt. Ltd., Opp. Govt. Inter Coll., Meerut 250001.

Nanda Brush & Steel Spring Mfg. Co., Railway Rd., Prempuri, Meerut 250002.

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Springs India Ltd., 46/1, Site 4, Indl. Area, Sahibabad, Ghaziabad 201005.

West Bengal

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Avon Springs & Accessories Pvt. Ltd., 12, India Exchange Place, Calcutta 700001.

B. M. Industries, 18, Acharya Prafulla Chandra Rd., Calcutta 700009.

Bhaba Engg. Udyog Ltd., 16, Bonfield Lane, Calcutta 700001.

Bhabataran Sarkar & Sons, 62/1A, N. Subhas Rd., Calcutta 700001.

Bharat Spring Mfg. Co., 115, N. Subhas Rd., Calcutta 700001.

Calcutta Spring Mfg. Co., 71-A, N. Subhas Rd., Calcutta 700001.

Circlip & Oilseals Co. (Regd.), P. O. Box 603, Calcutta 700001.

Coventry Spring & Engg. Co. Pvt. Ltd., 23, G. Chandra Ave., Calcutta 700013.

Gautam Engg. & Trdg. Co., 87A, D. Mitra St., Calcutta 700006.

George Salter India Ltd., Chartered Bank Bldg., Calcutta 700001.

Guest, Keen, Williams Ltd., 3A, Shakespeare Sarani, Calcutta 700071.

Henry Morgan & Co., 71A, N. Subhas Rd., Calcutta 700001.

Hoare Miller & Co. Pvt. Ltd., 15, G. Chandra Ave., Calcutta 700015.

Howrah Spring Mfg. Co., 118/1, Brindabon Mullick Le., Howrah 711104.

Indo British Spring Mfg. Co., 28, Christopher Rd., Calcutta 700014.

Industrial Spring & Steel Inds., 85, N. Subhas Rd., Calcutta 700001.

Joy Narayan Spring Mfg. Co., 103, Salkia School Rd., Howrah 711106.

Jyoti Industries, 26, Pottery Rd., Calcutta 700015.

Midland Spring Mfg. Co., 38, N. Subhas Rd., Calcutta 700001

Naveen Metal Ind., P. B. No. 10016, Calcutta 700025.

New Dominion Engg. Works, 1/B, Pottery Rd., Calcutta 700015.

Olympic Spring Mfg. Co., 7, Sooterkin St., Calcutta 700013.

Pioneer Spring & Steel Concern Pvt. Ltd., Eagle House, 4, Govt. Place North, Calcutta 700001.

Sanker Spring & Steel Co., 40, Strand Rd., Calcutta 700001.

Spring Mfrs. (India), 132, Beliaghatta Rd., Calcutta 700015.

Swami (Spring Mfg.) Co., 40/1, Strand Rd., Calcutta 700001.

STAPLERS

Jagjivandas Nandlal & Co., 237, A. Rehman St., Bombay 400003.

National Electro Mechanical Ind., C, B-1, Kalol Ind. Estate, Kalol 382721. (Gujarat).

Stapco Ind., 16, Rocky Ind. Estate, I. Patel Rd., Goregaon (E), Bombay 400063.

Staple Pins Pvt. Ltd., 293, D. Upadhyaya Marg, Mulund West, Bombay 400080.

Staplers Corpn. (India), Sambava Chambers, Sir P. Mehta Rd., Bombay 400001.

Wireways Inds. Corpn., 4/7, Ind. Estate, Gorwa, Vadodara 390003.

STATIONERY

(Also see Office Equipment)

Anand Sales Corpn., 34, Maruti Lane, Bombay 400001.

Bombay Stationery Mart, 7A, Sir P. Mehta Rd., Bombay 400001.

Bombay Stationery Supply Co., 147-149, Abdul Rehman St., Bombay 400003.

SPRINGS AND PRESSED COMPONENTS

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City Stationery Stores, Gool Mansion, S. A. Brelvi St., Bombay 400001.

East India Stationery Mart, 84, Cawasji Patel St., Bombay 400001.

Excelsior Stationery Mart, Tamarind House, Tamarind Lane, Bombay 400023.

Express Stationery Service, 12-A, Gunbow St., Bombay 400001.

Imperial Stationery Co., Medow's St., Bombay 400023.

International Stationery Stores, Victoria Bldg., S. A. Brelvi Rd., Bombay 400001.

Noble Stationery Mart, Victoria Bldg., S. A. Brelvi Rd., Bombay 400001.

Raja Traders, 117, Medows St., Bombay 400023.

Superior Stationery Mart Pvt. Ltd., Examiner Bldg., Medows St., Bombay 400023.

Wellknown Stationery Mart, Gool Mansion, Parsee Bazar St., Bombay 400001.

Young India Stationery Mart, 43, Ghoga St., Bombay 400001.

STATIONERY MAKING MACHINES

Dadiala Engg. Works, 27, DLF Ind. Area, Najafgarh Rd., New Delhi 110015.

STEEL—ALLOY

Bihar

Bihar Alloy Steels Ltd., P.O. Balkundra 829143. Hazaribagh Dist.

Tata Iron & Steel Co. Ltd., Jamshedpur 831001.

Delhi

Rathi Alloys & Steel Ltd., 3-A, Vandhana II, Tolstoy Mrg., New Delhi 110001.

Gujarat

Patel Alloy Steel Ltd., Plot 297-300, GIDC Phase II, Vatwa, Ahmedabad 382445.

Star Steel Pvt. Ltd., Maneja, Vadodara 390013.

Haryana

Globe Motors Ltd. (Globe Steels Division), 21/5, Mathura Rd., Ballabhgarh 121004.

Northern India Iron & Steel Company Ltd., 20/3, Milestone, Mathura Rd., Faridabad 121003.

Partap Steel Rolling Mills Pvt. Ltd., 21/3, Mathura Rd., Ballabhgarh 121004.

Karnataka

Brindavan Alloys Ltd., Peenya Indl. Area, IV Phase, Peenya, Bangalore 562140.

Central Steel Corpn., No. 9, S. P. Rd., Bangalore 560002.

Saroj Alloy & Steels Ltd., Post Box 38, Hospet 583201.

Visvesvaraya Iron & Steel Ltd., P.O. Bhadravati 577301.

Madhya Pradesh

Shree Ishar Alloy Pvt. Ltd., Sanwer Rd., Sukhalia, Indore 452003.

Maharashtra

Aditya Mills Ltd., Stadium House, V. Nariman Rd., Bombay 400020.

Basant Alloy Steel Ltd., C-6, MIDC Ind. Area, Tarapur 401502. (Thane Dist.).

Comet Steels, 3/11/29, Navjivan Socy., Lamington Rd., Bombay 400008.

Firth India Steel Co. Ltd., Plot No. F-3, Rd. No. 22, Thane Ind. Area, P.O. Wagle Estate, Thane 400604.

Guest, Keen, Williams Ltd., Lal Bahadur Shastri Marg, Bhandup, Bombay 400078.

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Telephones :
5120180 - 88

Hariganga Alloys & Steel Ltd., 39, MIDC Area, Hingna, Nagpur 440016.

Mahindra Ugine Steel Co. Ltd., Bakhtawar, Nariman Point, Bombay 400021.

Man Ind. Corpn. Ltd., 66, Alli Chambers, Tamarind Lane, Bombay 400023.

Mukand Iron & Steel Works Ltd., Shastri Mrg., Bombay 400070.

Narendra Carbon & Alloy Steel Co., 366/68, Kalbadevi Rd., Bombay 400002.

Navbharat Steel Rolling Mills, L. B. S. Marg, Bhandup, Bombay 400078.

Saroj Alloys & Steels Ltd., 'Saroj', Ramdaspeth, Nagpur 440010.

Sethi Nippon Pvt. Ltd., Dhun Mansion, 26, A. Gokhale St., Bombay 400004

Shakti Alloy Steel Ltd., Kerala Bldg., H. School Rd., Sangli 416416.

Sippy Steel Alloy Pvt. Ltd., 913, Dalamal Towers, N. Point, Bombay 400021.

Special Steels Ltd., Datta Pada Rd., Borivli (E), Bombay 400066.

Sumer Metal Corpn., 44/62, A. Dady St., Bombay 400004.

Uni Abex Alloy Products Ltd., Liberty Bldg., New Marine Lines, Bombay 400020.

Workshop Engg. & Equipment Co., 30/32, Bhajipala Lane, Bombay 400003.

Punjab

Ashoka Alloy Steels Pvt. Ltd., Sadopur, Ambala City 134007.

Mohta Alloys & Steel Ltd., Ludhiana 141001.

Punjab Iron & Steel Co. Pvt. Ltd., G.T. Rd., Jullundur Cantt. 144005.

Upper India Steel Mfg. & Engg. Co. Pvt. Ltd., Dhandari Indl. Complex, Focal Point, Ludhiana 141010.

Tamil Nadu

Madras Alloy & Stainless Steel Ltd., 151/3, Mount Rd., Madras 600002.

Mehta Industrial Corpn., 35, Mount Rd., Madras 600002.

P. Sood & Co., 56, Linghi Chetty St., Madras 600001.

Roshan Trading Corpn., 6, Jaffar Sarang St., Madras 600001.

Srinodhi Steel Pvt. Ltd., No. 29, IV Main Rd., Kasturba Nagar, Adyar, Madras 600020.

Steel Distributors, 61, Sembudoss St., Madras 600001.

Super Forgings & Steels (Sales) Pvt. Ltd., 274, Linghi Chetty St., Madras 600001.

Trichy Steel Rolling Mills Ltd., TVS Bldg., West Veli St., Madurai 625001.

Uttar Pradesh

Modi Steels Ltd., Modinagar 201201.

West Bengal

Associated Supply Corpn. (I), 10, Pollock St., Calcutta 700001.

Baijnath & Sons, 22, Strand Rd., Calcutta 700001.

Bengal Ferro-Alloys & Steel Ltd., 8, Chittaranjan Ave., Calcutta 700012.

Crown Steel Co. Pvt. Ltd., 4, Narayan Prasad Babu Lane, Calcutta 700007.

Guest, Keen, Williams Ltd. (Steel Division), 97, Andul Rd., Howrah 711103.

Hanuman Forging Ind., 134/1, M. Gandhi Rd., Calcutta 700007.

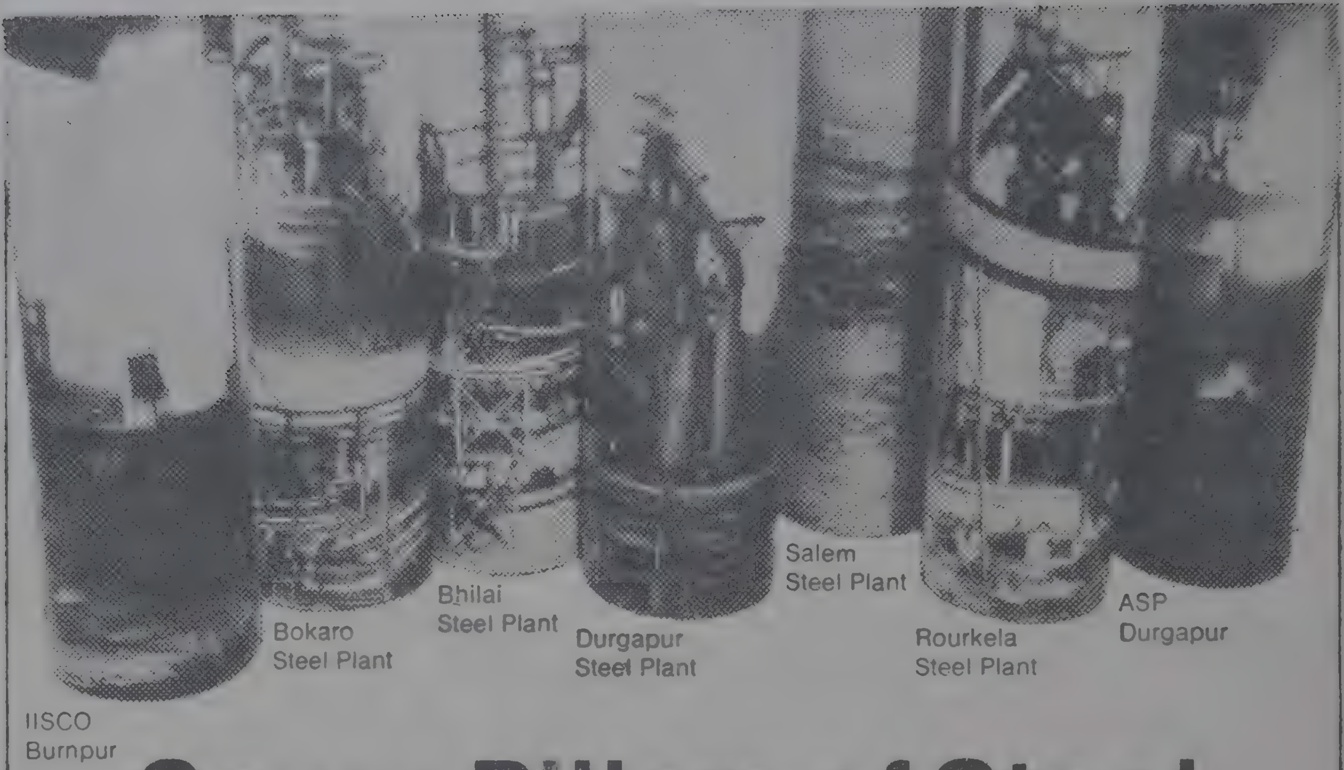
Industrial Steels Supplies Co., 35, Chittaranjan Ave., Calcutta 700012.

Madanlal Steel Corpn., 89, N. Subhas Rd., Calcutta 700001.

Metropolitan Steel Corpn., 23A, N. Subhas Rd., Calcutta 700001.

National Iron & Steel Co. Ltd., Belur, Howrah 711101.

New Steel Agency, 2, Narendra Chandra Dutt Sarani, Calcutta 700001.



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New Delhi-110 003

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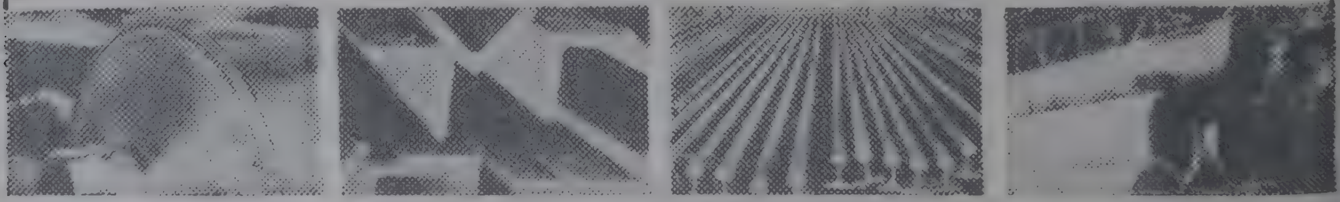

Orient Steel & Inds. Ltd., 2, Brabourne Rd., Calcutta 700001.

Special Steel Supply Centre, 219-C, Old China Bazar St., Calcutta 700001.

Steel Rolling Mills of Hindustan Pvt. Ltd., 47, Hyde Rd., Calcutta 700027.

United Steel Corpn., 24, Strand Rd., Calcutta 700001.

Usha Alloys & Steels Ltd., 11, Sooterkin St., Calcutta 700072.

STEEL FABRICATION

Allen King Steel Fabs, 10/1F, Block ' C ', Mercantile Bldgs., Calcutta 700001.

Alloy Steel Fabrication Pvt. Ltd., 902, Raheja Centre, Nariman Point, Bombay 400021.

Amiya Corpn., 19, British Indian St., Calcutta 700001.

Beekay Inds., 7, Chittaranjan Ave., Calcutta 700072.

Bharat Fabricators, 55-D, Govt. Ind. Estate, Kandivli, Bombay 400067.

Deccan Mech. & Chem. Ind., 78, Bhosari Ind. Estate, Pune 411026.

Eagle Engg. Co., 35, Chittaranjan Ave., Calcutta 700072.

FACT Engg. Works, Udyogamandal 683501. (Kerala).

Gansons Ltd., 131, Mount Rd., Madras 600006.

Hitvic Engg. & Mfg. Co. Pvt. Ltd., Anand Sojitra Rd., Vallabh Vidyanagar 388120. (Gujarat).

Khandelwal Udyog Ltd., Kurla Kirol Rd., Ghatkopar (W), Bombay 400086.

Krishna Fabrications Pvt. Ltd., 6A, Peenya Ind. Area, Phase 1, Bangalore 562140.

Lakshmi Engg. Works. 134/1, M. G. Rd., Calcutta 700007.

Lidant Electric Co. Pvt. Ltd., Gupta Mills Estate, Darukhana, Reay Rd., Bombay 400010.

Lunar Engrs., 10C, Tulsi Pipe Rd., Bombay 400013.

Motilal & Co., Oshiwara, S. V. Rd., Jogeshwari West, Bombay 400060.

Nathani Steel Pvt. Ltd., Vidya Vihar, Bombay 400086.

P.J.Surotia & Co., Rakhial, Ahmedabad 380023.

Patcon Pvt. Ltd., 7A, Elgin Rd., Calcutta 700020.

Peacefort Chem-Ind. Engg. Pvt. Ltd., 37-A, L.B.S. Mrg., Bombay 400078.

Peters Engg. Pvt. Ltd., 74, Bhosari Ind. Estate, Pune 411026.

Pharchemets, 117, Govt. Ind. Estate, Kandivli West, Bombay 400067.

Precision Controls, 94-B, Mount Rd., Madras 600018.

Rathi Industrial Equipment Co. Pvt. Ltd., 162, Ambedkar Rd., Pune 411001.

Sahyadri Structurals Pvt. Ltd., Preet Chambers, Pune 411005.

Shakti Chemical Works, Crescent Chambers, 3rd Flr., Tamarind Lane, Bombay 400023.

Shivsakti Engg. Corpn., 27-A, Ahmed Mahmujee St., Liluah 711204. (Howrah Dist.).

Siesta Steel Construction Pvt. Ltd., 401, Lotus House, 33A, New Marine Lines, Bombay 400020.

Simplex Udyog, 65, Ind. Estate, Bhilai 490001. (M.P.)

Standard Fabricators (India) Pvt. Ltd., Jeevan Sahakar, Sir P. M. Rd., Bombay 400001.

Steel & Alloy Steel Fabricators, P.N.B. House, 2nd Flr., Sir P.M. Rd., Bombay 400001.

Steel Fabrication Products, Charpur, Navsari 396445.

Steel Fabricators, Ind. Estate, Sangli 416416.

Sujata Engineers & Fabricators, Plot No. 112, MIDC, Marol Ind. Area, Andheri East, Bombay 400093.

Sunrise Electric Corpn., 92 AB, Govt. Ind. Estate, Bombay 400067.

Sur Fabricators Pvt. Ltd., 60, Ananda Palit Rd., Calcutta 700014.

Sved Corpn., Sved House, Plot C-5, St. 22, MIDC, Andheri East, Bombay 400093.

Todi Inds. Pvt. Ltd., Todi Estate, Lower Parel, Bombay 400013.

Tower Engg. Pvt. Ltd., 501-E, Poonam Chambers, Dr. A. Besant Rd., Worli, Bombay 400018.

Transved Industries, Plot No. C-3, Street No. 11, MIDC, Marol Indl. Area, Bombay 400093.

Union Sales Corpn., 1181-C, Ambedkar Marg, Bombay 400012.

United Steel Works, Kabilpore Naka, Juna Thana, Navsari 396445.

Vertex Engg. Works, B-23, Girikunj Ind. Estate, Andheri East, Bombay 400093.

Vijay Engg. & Trading Co., 71, M. Karve Road, Bombay 400020.

STEEL FURNACES

Andhra Pradesh

Andhra Steel Corpn. Ltd., Malkapuram, Visakhapatnam 530001.

Bihar

Ashoka Steels, Ashoka Cement Ltd., Dalmianagar 821305.

Foundry Forge Plant of Heavy Engg. Corpn. Ltd., Dhurwa, Ranchi 834004.

Kumardhubi Engg. Works Ltd., Kumardhubi 828203. Dhanbad Dist.

Tata Engg. & Locomotive Co. Ltd., Jamshedpur 831001.

Tata Yodogawa Ltd., Adityapur 831013.

Usha Alloys & Steel Ltd., Adityapur 831013.

Gujarat

Bharat Steel Foundry, Ganedia Kuwa Road, Kotharia, Rajkot 360001.

Poly Steels (India) Ltd., Survey No. 46, Nari Road, Bhavnagar 364001.

Steelcast (Bhavnagar) Pvt. Ltd., Ruvapari Road, Bhavnagar 364001.

Haryana

Dabriwals Steel & Engg. Co. Ltd., Sector 24, Plot No. 136, P.O. Faridabad 121001.

Globe Steels (Divn. of Globe Motors Ltd.), 21/4, Mathura Road, Ballabgarh 121004.

Haryana Steel & Alloys Ltd., G.T. Road, Murthal (Sonepat) 131001.

Northern India Iron & Steel Co. Ltd., 20/3, Milestone, Mathura Road, Faridabad 121001.

Oswal Steels, Plot No. 263, Sector No. 24, Faridabad 121001.

Pratap Steel Rolling Mills Pvt. Ltd., 21/3, Mathura Road, Ballabgarh 121004.

S. G. Steels Pvt. Ltd., Plot No. 6, Sector 4, Ind.-cum-Housing Estate, Faridabad 121001.

Universal Steel & Alloys Ltd., P.O. Gurukul, Indraprastha Ind. Estate, Faridabad 121001.

Karnataka

Bhoruka Steel Ltd., Mahadevpura P.O., Whitefield Road, Bangalore 560048.

Canara Workshops Ltd., Maroli, Mangalore 575005.

Visvesvaraya Iron & Steel Ltd., Bhadravati 577301.

Kerala

Steel Complex Ltd., 'Wisco Manor', Feroke 673631.

Madhya Pradesh

Binod Steels Ltd., 68/77, Ind. Estate, Pologround, Indore 452001.

Central India Machinery Mfg. Co. Ltd., Agra Loop Road, Birlanagar, Gwalior 474004.

Shri Ishar Alloy Steels Pvt. Ltd., Sector 'D', Sukhalia, Sanwar Road, Indore 452003.

Maharashtra

Aeron Steel Rolling Mills, 2nd Pokharan Road, Majiwada, Thane 400601.

B. R. Hermann & Mohatta (I) Pvt. Ltd., Mustafa Bldg., Sir P.M. Road, Bombay 400001.

Godrej & Boyce Mfg. Co. Pvt. Ltd., Vikhroli Bombay 400079.

Indian Steel Ind. Corpn., 106-7, Bazar Ward, Kurla, Bombay 400070.

K. T. Steel Ind. Pvt. Ltd., Broach St., Bombay 400009.

Krishna Steel Ind. Pvt. Ltd., Vaswani Mansion, D. Vachha Road, Bombay 400020.

Kumar Steel & General Mills, Shastri Marg, Bombay 400083.

Mahindra Ugine Steel Co. Ltd., Bakhtawar, Nariman Point, Bombay 400021.

Malleable Iron & Steel Castings Co. Pvt. Ltd., Mathuradas Mills Comp., S.Bapat Road, Bombay 400013.

Mukand Iron & Steel Works Ltd., Shastri Marg, Bombay 400070.

Western Rolling Mills Pvt. Ltd., L.B. Shastri Marg, Bhandup, Bombay 400078.

Punjab

Apeejay Steel Castings Co. Pvt. Ltd., Tanda Road, Jullunder City 144001.

Punjab Concast Steels Ltd., Dhandri Kalan, Ludhiana 141001.

Punjab Iron & Steel Co. Pvt. Ltd., G. T. Road, Jullundur Cantt. 144005.

Upper India Steel Mfg. & Engg. Co. Pvt. Ltd., Village Sherpur Kalan, G. T. Road, Ludhiana 141003.

Rajasthan

Man Ind. Corpn. Ltd., P.B. 131, Jaipur 302001.

National Engg. Ind. Ltd., Jaipur 302001.

Tamil Nadu

Continuous Steel Casting Plant of TIDCO Ltd., Mosur Road, Arkonam 631001.

Ennore Foundries Ltd., Ennore, Madras 600057.

K.C.P. Ltd., Central Workshop, Tiruvottiyur, Madras 600019.

Shri Ramakrishna Steel Ind. Ltd., Karamadai 641104. Coimbatore Dist.

Sivananda Steels Ltd., Ind. Estate, Ambattur, Madras 600058.

Uttar Pradesh

Ambica Steels Pvt. Ltd., 51/2, Ind. Area, Site 4, Sahibabad, Ghaziabad 201005.

J. K. Iron & Steel Co. Ltd., Kalpi Road, Kanpur 208012.

Modi Steels, Modi Ind. Ltd., Modinagar 201201.

Motilal Padampat Sugar Mills Co. Pvt. Ltd., Steel Foundry Division, Gutaiya, Kanpur 208001.

Rathi Ispat Ltd., Area No. 1, Ghaziabad 201001.

West Bengal

Alloy Steel Plant, Durgapur 713204.

Burn & Co. Ltd., 20, N. Mukerjee Rd., Howrah 711101.

Electrosteel Castings Ltd., Stephen House, 4, B. B. D. Bagh East, Calcutta 700001.

Gontermann Peipers (I) Ltd., 69, G. C. Ave., Calcutta 700013.

Guest, Keen, Williams Ltd., Steel Division, 97, Andul Road, Howrah 711103.

Hindustan Iron & Steel Co., 68, Jessore Road, Dum Dum, Calcutta 700028.

Howrah Iron & Steel Works Pvt. Ltd., 90, Benares Road, Salkia, Howrah 711106.

Indian Iron & Steel Co. Ltd., Asansol 713301.

Indo-Japan Steels Ltd., 5/1, G.T. Road, Belur, Howrah 711101.

Kusum Steels Pvt. Ltd., 3, Amratolla St., Calcutta 700001.

Mining and Allied Machinery Corpn. Ltd., P.O. Durgapur 713201.

National Iron & Steel Ltd., P.O. Belur Math 711202. Howrah Dist.

Orient Steel & Wire Inds. Ltd., 2, Brabourne Road, Calcutta 700001.

Textile Machinery Corpn. Ltd., Steel Foundry Division, Belgharia, Calcutta 700056.

STEEL FURNITURE & SECURITY EQUIPMENT

Andhra Pradesh

Andhra Steel Furniture Works, 7, M. Gandhi Road, Secunderabad 500003.

Bantia Steel Ind. Pvt. Ltd., 14, New Bhoiguda, Secunderabad 500003.

Hyderabad Allwyn Ltd., Sanatnagar, Hyderabad 500018.

Trinity Metal Ind., A-5, Co-op. Ind. Estate Ltd., Balanagar, Hyderabad 500037.

Assam

Metal & Alloy Inds., Tinsukhia 786125.

Chandigarh

Decor Steel Pvt. Ltd., 71/72, Indl. Area, Chandigarh 160002.

Delhi

Delhi Engg. Works Pvt. Ltd., Azadpur, Delhi 110033.

Delite Safe Works, Qutab Road, Delhi 110006.

Fourbhai Engg. Works, G.T. Road, Delhi 110032.

Garnish Traders Pvt. Ltd., 24, Kamla Market, New Delhi 110001.

Indian Safe Factory, 10254, Loha Mandi, Motia Khan, New Delhi 110007.

J. M. Chimanlal Agarwal & Co., 3676, Chawri Bazar, Delhi 110006.

Jayess Corpn., C/114, Naraina Indl. Area, Phase I, New Delhi 110028.

Kings Furnishing & Safe Co., 53, M.M. Rd., New Delhi 110055.

Style Steel & Engg. Works, 60, Rani Jhansi Road, New Delhi 110055.

Union Engg. Co., AA/6, Anand Parbat, St. No. 4, Guru Gobind Singh Marg, New Delhi 110005.

Gujarat

Ahmedabad Eagle Engg. Enterprises Pvt. Ltd., 410, Near Rly. Crossing, Naroda, Ahmedabad 382325.

Chandan Metal Products Pvt. Ltd., Gorwa Road, Vadodara 390003.

Jayendra Metal Ind. Ltd., Opp. Baroda College, Vadodara 390001.

Khoj Metal Products Pvt. Ltd., Plot No. 3, GIDC, Kapadwanj 387620. Kaira Dist.

Laxmi Steel Inds., Opp. Vakal Seva Kendra, Bhimnath Road, Sayajiganj, Vadodara 390001.

Pasmar Enterprises, C-11, Indl. Est., Gandhidham 370201.

Security Equipment Manufacturers, 47, Ind. Estate, Naroda, Ahmedabad 382325.

Trigon Metal Sections, Gorwa Road, Vadodara 390003.

Vaultex Ind., 4/24, Ind. Estate, Gorwa Road, Vadodara 390003.

Karnataka

Bangalore Metal Products Pvt. Ltd., C-34, Govt. Ind. Estate, Rajajinagar, Bangalore 560010.

Chamundeshwari Engg. Works, 8th Mile, Mysore Road, R.V. Coll. Post, Bangalore 562124.

M.M. Agencies Pvt. Ltd., 19, Sankey Rd., Bangalore 560020.

Mahakali Engg. Corpn., 133, Nagarthpet, Bangalore 560002.

Vijaya Trading Co., 306, Sub. Chatram Road, Bangalore 560009.

Yu Surgicals, 938, Arokiammalayout, Venkateshpura, Bangalore 560045.

Madhya Pradesh

Malwa Steel Factory, Topkhana Road, Ujjain 456001.

Vanguard Business Systems Ltd., 355, Jawahar Marg, Indore 452004.

Khoj Metal Products Pvt. Ltd.

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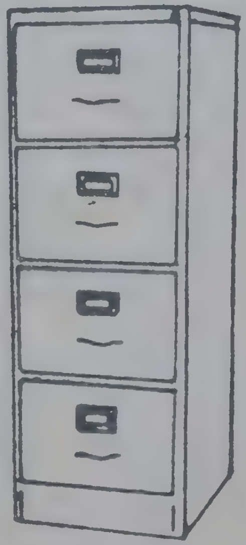

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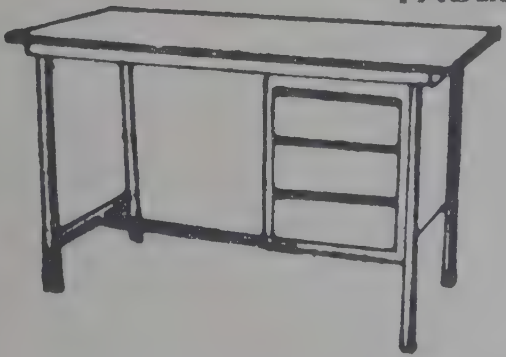

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Maharashtra

Allsteel, Bombay Mutual Terrace, 534, Sardar Patel Road, Bombay 400007.

Asian Steel Products, 311-13, Kalbadevi Road, Bombay 400002.

Dwivedi Steelmade Pvt. Ltd., 230, Dr. A. Besant Road, Bombay 400018.

Godrej & Boyce Mfg. Co. Pvt. Ltd., Godrej Bhavan, Home Street, Bombay 400001.

Govin's Safe Mfg. Co., 167, Viegas St., Bombay 400002.

Gujarat Iron & Steel Works, 356, Sandhurst Road, Bombay 400004.

Harpreet Inds., Pt. J.L. Nehru Marg, Aurangabad 431001.

Honesty Iron Works, 60, 1st Carpenter St., Bombay 400004.

Khinvasara Ind., S. No. 127, Akurdi, Pune 411019.

Khira Steel Works Pvt. Ltd., Khira Bhavan, Sandhurst Bridge, Bombay 400007.

Methodex Business Systems, 33-A, New Marine Lines, Bombay 400020.

Metro Steel Products, Kalbadevi Road, Bombay 400002.

New Gujarat Safe & Steel Works, Jogeshwari (E), Bombay 400060.

Office Equipment Co. of India, Bombay Mutual Bldg., Sir P. Mehta Road, Bombay 400001.

Record Management Aids, 9/3, Tardeo A/C Market, Bombay 400034.

Remington Rand of India Ltd., Mehta Mahal, 15, Mathew Rd., Bombay 400004.

Standard Steel Furniture Works, 91, Mohammedali Road, Bombay 400007.

Steelage Ind. Ltd., Opp. Post Office, Mazgaon, Bombay 400010.

Steelmade, 230, Dr. A. Besant Road, Bombay 400018.

Union Sales Corpn., 239, P. D'Mello Road, Bombay 400001.

Veekay Enterprises, S/3, 602, Sunder Nagar, S.V. Rd., Malad West, Bombay 400064.

Venus Steel Products (India), 301, Kalbadevi Road, Bombay 400002.

Tamil Nadu

Agro-Indl. Engg. Combine, Bodipatti, Udamalpet 642126. Coimbatore Dist.

Bendweld Ind., 297, T. H. Road, Madras 600001.

Chelur Corpn., 30A, Pantheon Road, Egmore, Madras 600008.

Dindigul Lock Workers Co-op. Ind. Society Ltd., Malaipatli Road, Dindigul 624001.

L. K. S. Furniture, 23, Madurai Rd., Tiruchirapalli 620008.

M.M. Agencies Pvt. Ltd., 141, Puraswalkam High St., Madras 600010.

Southern Engg. Inds., 146, Dr. R. Prasad Road, Tatabad, Coimbatore 641012.

Sri Ram Corpn., 3/2, Jagannathan Road, Nungambakkam, Madras 600034.

Tamilnad Thozhilagam, Sidco Plot-13, Ind. Estate, Ambattur, Madras 600058.

Uttar Pradesh

Charan Safe Works Pvt. Ltd., 6-A, Ind. Estate, Kanpur 208001.

New Era Steel Inds., Mukand Nagar, Ghaziabad 201001.

West Bengal

Acme & Co., 'Jain House', 8/1, Esplanade East, Calcutta 700001.

Anand Metal & Steel Works, 23, Brabourne Road, Calcutta 700001.

Bengal Steel Furniture, P-40/45, Ezra Street, Calcutta 700001.

Bombay Safe & Steel Works Pvt. Ltd., 56, N. Subhas Road, Calcutta 700001.

Bungo Steel Furniture Ltd., 57, Diamond Harbour Road, Calcutta 700023.

Calcutta Furniture Works Ltd., 69/1, S. K. Deb Road, Calcutta 700028.

Chatterjee Engg. Co., 113, Lenin Sarani, Calcutta 700043.

Commercial Medium Pvt. Ltd., 51, Chittaranjan Avenue, Calcutta 700012.

Commercial Syndicate, 22, Canning St., Calcutta 700001.

Cromelite India Pvt. Ltd., P-35, India Exchange Place, Calcutta 700001.

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Jupiter Steel Mfg. Co., 20/A, Brabourne Road, Calcutta 700001.

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Metro Ind. Works, 94, B. Ghose Road, Calcutta 700040.

Orient Safe Cabinet Mfg. Pvt. Ltd., 133, B.R.B.B. Rd., Calcutta 700001.

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Roy-Singha Engg. Works, 639, Diamond Harbour Road, Behala, Calcutta 700034.

Steel Furniture & Construction Co., 8, Brabourne Rd., Calcutta 700001.

Steel Products Ltd., 96, Garden Reach Road, Calcutta 700023.

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Vishalandhra Ind., Plot 1, Ind. Area, Azamabad, Hyderabad 500020.

Delhi

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D. C. M. Data Products, Kanchenjunga Bldg., 18, Barakhamba Road, New Delhi 110001.

Devidayal Aluminium Inds. Pvt. Ltd., 20/1, Asaf Ali Rd., New Delhi 110002.

Indl. Engg. Corpn. of India, 701, Asha Deep, 9, Hailey Road, Badli, New Delhi 110001.

Metal Forgings Pvt. Ltd., B-1, Indl. Area, New Delhi 110027.

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Shree Metal Works, 25/4, Block 'A', Connaught Place, New Delhi 110001.

Gujarat

AMF Steels Pvt. Ltd., Plot 269, Umbergaon 396171.

Asha Metal Ind., Prajapatiwadi, Vejalpore, Navsari 396445.

Dasharathlal Chimanlal & Bros., Gujarat Pharmaceutical's Comp., Asarwa, Ahmedabad 380016.

Naran Lala Metal Works Pvt. Ltd., Near Rly. Stn., Navsari 396445.

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Haryana

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Himachal Pradesh

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Shivalik Metal Ind., Bhadri Nagar, Paonta Sahib 173025.

Karnataka

Ferro Concrete Co. of India (Stainless Steel), Indl. Estate, Gokul Rd., Hubli 580030.

Kerala

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Maharashtra

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Anil Metal Corpn., 5, 2nd Panjrapole Lane, Bombay 400004.

Asian Metal Corpn., 142, Panjrapole Road, Gulalwadi, Bombay 400004.

Best Silver Co., 55, M. Gandhi Road, Vile Parle (East), Bombay 400057.

Bhogilal & Co., 250-C, New Cross Road, Opp. Metal Box Co., Worli, Bombay 400018.

Bombay Brass & Metal Works, 2nd Panjrapole Street, Bombay 400004.

Chetan Steel & Engg. Co., 6, V. P. Road, C. P. Tank, Bombay 400004.

Continental Steel Corpn., 12-14, Ardeshir Dady St., Bombay 400004.

Deepak Metal Ind., 16, Bank St., Bombay 400023.

Devidayal Stainless Steel Ind. Pvt. Ltd., Darukhana, Reay Road, Bombay 400010.

Eagle Industries, 41/C, Jairajbhai Lane, Bombay 400008.

Eastern Metal Works, 102, Dattaram Lad Path, Bombay 400012.

Galaxy Metal Corpn., 448, Falkland Road, Near Sindhi Lane, Bombay 400004.

Gujarat Metal Factory, 589, Rasta Peth (New), Pune 411011.

Hedavkar Metal Pressing Works, B. Shankar Cross Road, Dadar, Bombay 400028.

Highland Metal Ind., 163, Panjrapole Road, Bombay 400004.

Hiro Industrial Metal Corpn., 3rd Panjrapole Lane, Bombay 400004.

India Metal Ind., Parekh Nagar, S. Vivekanand Road, Kandivli (West), Bombay 400067.

Industrial & Commercial Corpn., 13-B, 9th Khetwadi Lane, Bombay 400004.

Industrial Metal Corpn., 52, Islampura Street, Bombay 400004.

Jain Metal Ind., 222, Panjrapole Road, Bombay 400004.

Jajodia Alloys Steel Co., Mittal Chambers, Nariman Point, Bombay 400021.

Jogani Metal Ind., Prabhu Niwas, 148-A, V. Patel Road, Bombay 400004.

K. C. Metal Ind., 14/1, Jaihind Estate, Bhuleshwar, Bombay 400002.

K. R. Metal Ind. Pvt. Ltd., C. Ashok Road, Ashok Nagar, Kandivli (East), Bombay 400064.

Kanoi Steel Corpn., 255, Harihar Niwas, Khetwadi 3rd Lane, Bombay 400004.

Kanti Impex Trading Co., 125, N. Master Road, Bombay 400001.

Kwality Steel Corpn., 156, Bapty Rd., Bombay 400008.

Lallubhai Amichand Pvt. Ltd., 48/50, Kansara Chawl, Bombay 400002.

Lucky Stainless Steel Works, 13, 3rd Panjrapole Lane, Bombay 400004.

Mahavir Metal Ind., 12, Gala Ind. Estate, Mulund (West), Bombay 400080.

Metal India, 182, Kalbadevi Road, Bombay 400002.

Metallica Metals India, 13/21, 2nd Panjrapole Lane No. 208, Bombay 400004.

Metro Steel Corpn., 50, A. Dady St., Bombay 400004.

Mitsui & Co. Ltd., Manek Mahal, V. Nariman Road, Bombay 400020.

Modern Metals (India), 52/52A, Nanubhai Desai Rd., Islampura Corner, Bombay 400004.

N. M. Metal Ind., 20, Dadysett Agiary Lane, Bombay 400002.

National Metal Ind., 15-A, Parel Village Road, Parel, Bombay 400012.

Oriental Metal Pressing Works. Pvt. Ltd., 131, Worli, Bombay 400018.

Oswal Metal Supply Corpn., 108/A, Kika Street, Bombay 400004.

P. Jayantilal & Co., 76-B, Mohamedali Road, Bombay 400004.

Paradise Metals, 8-10, 2nd Carpenter St., Bombay 400002.

Paramount Stainless Co., 187, Mumbadevi Road, Bombay 400002.

Parmar Products, Moti Udyog Nagar, Ramchandra Lane, Malad, Bombay 400064.

Pearl Metal Works, 20, Wadi Bunder Rd., Bombay 400010.

Pitambardas Lallubhai & Co., 86, Kansara Chawl, Bombay 400002.

Popular Metal Works & Rolling Mills, Sion, Bombay 400022.

R. K. Ind., 12/18, V. Patel Road, Bombay 400004.

R. Navinchandra & Co., Mehta Chambers, Kalyan St., Bombay 400009.

Rainbow Metals (India), 117, Kika St., Bombay 400004.

Ramkishan Metal Corpn., 138, Kalbadevi Road, Bombay 400002.

Ramkishan Metal Works (Bombay), 32-34, Ashok Chambers, Broach Street, Bombay 400009.

Rasiklal Kantilal & Co., 145, Kika St., Bombay 400004.

Rose Metal Ind., G-77, Sarvodaya Nagar, Panjrapole Road, Bombay 400004.

Roshan Ind. Corpn., 7, Kika Street, Bombay 400004.

Samir Metal Corpn., 24-A, Fanaswadi, Bombay 400002.

Sanghvi Non-Ferrous Metal Ind., 159/2, Akurdi, Near Chinchwad Rly. Stn., Bombay Poona Rd., Pune 411019.

Shah Metal Pressing Works, 201, Khetwadi Main Rd., Bombay 400004.

Sheth Bros., 195, Samuel St., Bombay 400009.

Shri Krishna Associates, 431, Lamington Road, Bombay 400004.

Shri Krishna Metal Works, 26, Kotkar Ind. Estate, Bombay 400063.

Shripal Metal, 45, C.P.Tank, Bombay 400004.

Standard India Co., 136/138, C.P.Tank Rd., Bombay 400004.

Steel India Co., 35, Krishna Bhuvan, 1st Carpenter St., Bombay 400004.

Sumer Metal Corpn., 44/62, Ardeshir Dady St., Bombay 400004.

Suraj Metal Corpn., 21, 2nd Carpenter St., Bombay 400004.

Suresh & Co., 501, Loha Bhavan, Frere Rd., Bombay 400009.

Thakoor Metal Ind., 41-A, Chakala Rd., Andheri, Bombay 400069.

Uni Abex Alloy Products Ltd., Liberty Bldg., N. Marine Lines, Bombay 400020.

Universal Metal Corpn., Shrinathji Bldg., 3rd Bhoiwada Road, Bombay 400002.

Venus Metal Corpn., 52, Islampura Corner, Bombay 400004.

Vijay Metal Works, 'Ramkrupa', 25, Parekh Street, Girgaum, Bombay 400004.

Vinay Metal Ind., 29-C, Sarvodaya Nagar, Panjrapole Road, Bombay 400004.

Vinod Stainless Steel Works, 53, 2nd Bhoiwada, Bombay 400002.

Wikas Metal Works, Udyog Dham, L. B. Shastri Marg, Vikhroli. Bombay 400083.

Yaswant Steel & Metal Udyog, 13/21, 3rd Panjrapole Lane, No. 202, Bombay 400004.

Orissa

Kishore Ind., Station Rd., Berhampur 760005.

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M. A. Ethirajulu Naidu, 7/4, Evening Bazar, Madras 600003.
Mysore Premier Metal Factory, 127, Mint St., Madras 600003.
S. D. & Sons, 16, Lakmudas St., Park Town, Madras 600003.
Sanghvi Metal House, 451, Mint St., Madras 600003.
Siva Inds., 6, Nayanar Rd., Mylapore, Madras 600004.

Uttar Pradesh

Amit Alloys Pvt. Ltd., Mahmoodabad Estate Bldg., Hazratganj, Lucknow 226001.
Devidayal Aluminium Inds. Ltd., 149, G.T. Rd., Sahibabad, Ghaziabad 201005.
M. S. Gupta & Bros., Rishikul Rd., Moradabad 244001.
Mittal Rolling Mills, Budh Bazar, Moradabad 244001.
Modi Steels Ltd., Modinagar 201201. Ghaziabad Dist.

West Bengal

Ashok Metal Ind. Ltd., 157, N. Subhas Rd., Calcutta 700001.
Bengal Ind. Corpn., 11, J. Jalan Rd., Liluah 711204.
Bombay Stainless Steel House, 50, Cotton St., Calcutta 700007.
C. S. K. Ind., 219/C, Old China Bazar St., Calcutta 700001.
Chandra Ind., 59, Cotton St., Calcutta 700007.
Eskey Stainless Steel Equipments Pvt. Ltd., P-31, Mission Row Extn., Calcutta 700013.
Ghorawat Metal Inds., 14/2, Old China Bazar St., Calcutta 700001.
Jeetmull Jaichandlal, 109, Netaji Subhas Rd., Calcutta 700001.
Kanoi Steel Corpn., 37, Canning St., Calcutta 700001.
New India Metal Ind., 139, Banares Rd., Salkia, Howrah 711006.
Pelican Engrs., 4, Hartford Le., Calcutta 700016.
Progressive India, 11, Armenian St., Calcutta 700001.
Standard (India) Co., 14/2, Old China Bazar St., Calcutta 700001.
Steel Emporium, 51, N. Subhas Rd., Calcutta 700001.
Steel Rolling Mills of Hindustan Pvt. Ltd., 47, Hide Rd., Calcutta 700027.

STEEL STRIPS

Almega Indl. Co., Dada Manzil, 67/69, Mohamedali Rd., Bombay 400003.
Anil Steel & Inds. Ltd., Post Box 174, Jaipur 302001.
Atma Steels Pvt. Ltd., C139 to 182, Indl. Area, Rd. No. 1, Bulandshahr Rd., Ghaziabad 201001. U.P.
Basant Alloy Steel Ltd., 201, Ansal Bhawan, K. Gandhi Mrg., New Delhi 110001.
Bestamco, 94, S. V. Rd., Erla, Bombay 400056.
Colourarc Electrodes, 112, N. Dhuru St., Bombay 400003.
Dalmia & Co., 138, B. R. B. B. Rd., Calcutta 700001.
Eastern Steel Inds., 21-B, Noble Chambers, Parsi Bazar St., Bombay 400001.
Graham Firth Steel Products (India) Ltd., Firsteel Compd., W. Express Highway, Goregaon (East), Bombay 400063.
Hardtemp Steels Pvt. Ltd., 1-2-261, Opp. Minerva Theatre, Sarojini Devi Rd., Secunderabad 500003.
Jindal Strips Ltd., 56, Hanuman Rd., New Delhi 110001.
Mandelia Bros., 40, N. Subhas Rd., Calcutta 700001.
Mangal Steel Inds., 201, Arihant, Ahmedabad St., Bombay 400009.
Mohta Electro Steel Ltd., Sanas Bldg., Ambedkar Mrg., Byculla Bombay 400033.
Nagarjuna Steels Ltd., Nagarjuna Hills, Panjagutta, Hyderabad 500004.

Nathani Steel Pvt. Ltd., Vidya Vihar, Bombay 400086.
Precision Wires & Strips, Mira Chemical Compd., 6A, Veera Desai Rd., Andheri West, Bombay 400058.
Prime Wire Corpn., 50, Durgadevi St., Kumbharwada, Bombay 400004.
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Sciecon Trading Co., 13, Mogra Pada, Off Nagardas Rd., Bombay 400069.
Southern Steel Ltd., Moula Ali, Hyderabad 500040.
Steel Corpn., 23, Kumbharwada 2nd Le., Bombay 400004.
Steel Distributors, Jariwala Bldg., Bombay 400004.
Steel Krafts, G.T. Rd., Panipat 132103. (Haryana).
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Ashok Tubes Pvt. Ltd., Park Rd., Golghar, Gorakhpur 273001. U.P.
Atma Tube Products Ltd., 112, Ansal Bhawan, K. Gandhi Mrg., New Delhi 110001.
Bharat Heavy Electricals Ltd., Tiruchirapalli 620014 (Tamil Nadu).
Bharat Steel Tubes Ltd., Chiranjiv Tower, 43, Nehru Place, New Delhi 110019.
Bundy Tubing of India Ltd., 11/12, North Beach Rd., Madras 600001.
Century Tubes Ltd., Sector 26, Rohtak Rd., Bhiwani 125021. (Haryana).
Choksi Tubes Co. Pvt. Ltd., 113/114, Bajaj Bhavan, Nariman Point, Bombay 400021.
Dinesh Tubes Pvt. Ltd., 1104, Vikram Tower, Rajendra Place, New Delhi 110008.
Fin-Tubes Mfg. Co., MIDC, Plot No. 76, Rd. No. 14, Andheri East, Bombay 400093.
Galaxy Tubes, Bojapara, Gondal 363011 (Gujarat).
Gemini Steel Tubes Pvt. Ltd., 20, S. J. Park Rd., Bangalore 560002.
Gujarat Steel Tubes Ltd., Kali, Near Sabarmati, Ahmedabad 382470.
Gupta Bros. Conduit Pipe Mfg. Co. Pvt. Ltd., Dinanagar 143531. Gurdaspur Dist. (Punjab).
Hindustan Pipe Udyog Ltd., 56, Hanuman Rd., New Delhi 110001.
Hyderabad Steel Tubes Pvt. Ltd., 16th K. M., Gandipet, Hyderabad 500008.
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Jindal Steel Products, 16-A, M. Gandhi Rd., Calcutta 700007.
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Kochhar Tubes Pvt. Ltd., 157, Princess St., Bombay 400002.
Maharashtra Tubes Ltd., 81A, Mittal Chambers, N. Point, Bombay 400021.
Malet Welding Works (Tube Mill Divn.), 16, Bank St., Bombay 400023.
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Patcon Pvt. Ltd., 7A. Elgin Rd., Calcutta 700020.

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Steelfab Engg. Corpn., 29, V. Nariman Rd., Bombay 400023.,

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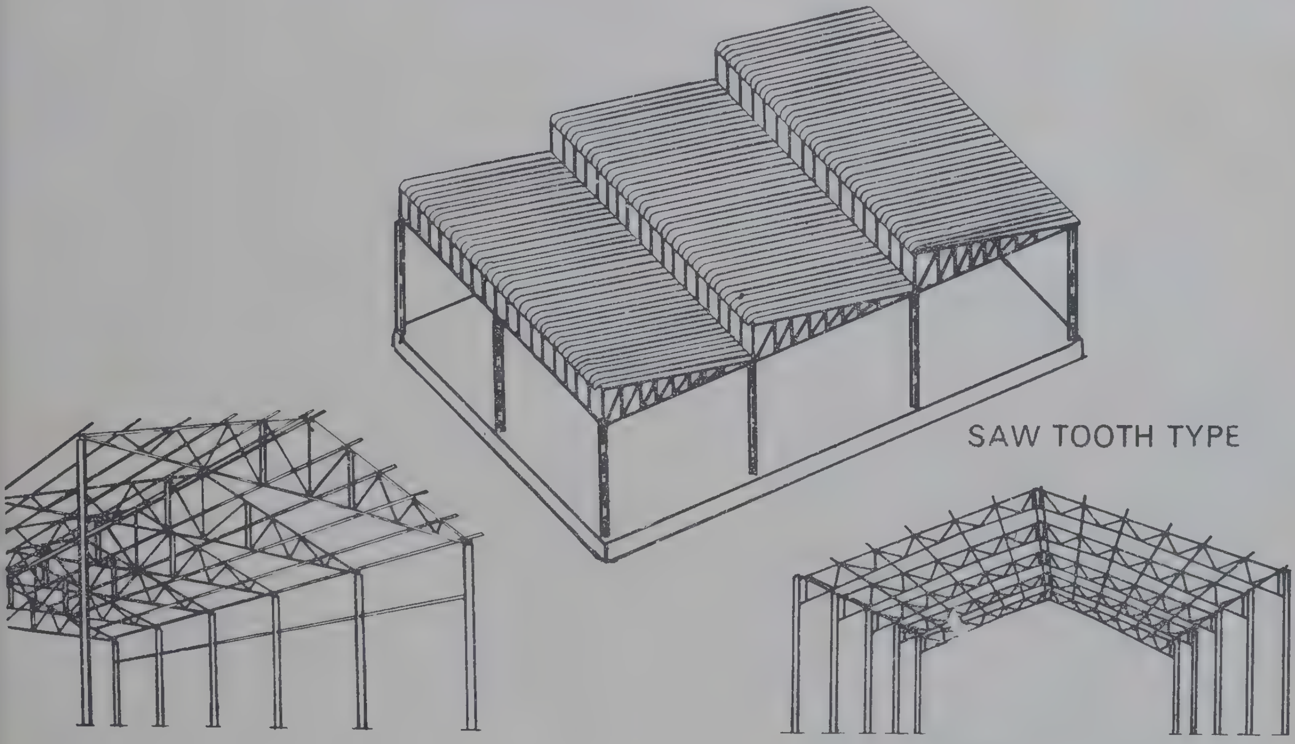

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Indian Engg. Co., 132, Dr. A. Besant Rd., Worli Naka, Bombay 400018.

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Jafkay Engg. Inds. Pvt. Ltd., A-21, MIDC Ind. Area, Andheri East, Bombay 400093.

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Voltas Ltd., Switchgear Dn., Post Box 109, Thane 400601.

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Rajasthan

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General Electric Co. of India Ltd., Magnet House, 6, Chittaranjan Ave., Calcutta 700013.

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Gujarat

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Surat Textile Mills Ltd., Varachha Rd., Surat 395003.

Haryana

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Elsons Cotton Mills Pvt. Ltd., 23rd Milestone, Mathura Rd., Ballabgarh 121004.

Technological Institute of Textiles, P.O. Birla Colony 125022. Bhiwani, Hissar Dist.

Jammu and Kashmir

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Sujata Textile Mills, Nanjangud 571301.

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Jiyajeerao Cotton Mills Ltd., P.O. Birlanagar, Gwalior 474004.

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Shruti Synthetics Ltd., 75, Polo Ground, Udaipur 313001.

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Shri Ram Fibres Ltd., Gopala, 25, Rajendra Place, New Delhi 110008.

Siddha Syntex Ltd., 35, Deputyganj, Sadar Bazar, Delhi 110006.

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Gujarat Nylons Ltd., Natraj Chambers, 1st Flr., Ashram Rd., Ahmedabad 380009.

Neomer Ltd., Alembic Rd., Vadodara 390003.

Haryana

Anand Synthetics Ltd., 22 KM., Mathura Rd., Faridabad 121001.

Karnataka

Priya Chemicals, 'Devata Plaza', D-6, 2nd Flr., Residency Rd., Bangalore 560025.

Resins India Pvt. Ltd., 88, Main Rd., Whitefield, Bangalore 560066.

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Gwalior Rayon & Silk Mfg. (Wvg.) Co. Ltd., P.O. Birlanagar, Gwalior 474004.

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Rajasthan

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Shriram Rayons, Shrirampur, Kota 324001.

Tamil Nadu

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Rattan Inds., LBS Mrg., Bhandup, Bombay 400078.
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Tas Engg. Co. Pvt. Ltd., 333, A. Rehman St., Bombay 400003.
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Capital Electronics, 12, Chowringhee Rd., Calcutta 700013.
Chandrika Electronics Ltd., 139, Sardar Patel Rd., Secunderabad 500003.
Eskay Inds., 10, L.B. Stadium, Hyderabad 500004.
General Radio Corpn., 2/2, Jhandewalan Ind. Scheme, New Delhi 110055.
Jai Electronic Ind. Pvt. Ltd., 114, Shivaji Park, Bombay 400028.
Kartari Electronics, Wagle Ind. Estate, Thane 400604.
Maxton Marketing Pvt. Ltd., 563, 32nd Cross, 11th Main 4th Block, Jayanagar, Bangalore 560011.
Megha Overseas Pvt. Ltd., 1137, Chandni Chowk, Delhi 110006.
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Murphy India Ltd., Dr. Shirodkar Rd., Off Hospital Ave., Parel, Bombay 400012.
Parry Engg. & Electronics Pvt. Ltd., Opp. Jain Temple, M. Gandhi Rd., Ahmedabad 380001.
Radio & Communication Traders, B-3/1, Okhla Indl. Area, Phase II, New Delhi 110020.
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Singh Trading Co., 9, Blackers Rd., Madras 600001.
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Suman Electronics, 24, Daryaganj, New Delhi 110002.
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Bhor Inds. Ltd., 392, V. Savarkar Mrg., Bombay 400025.
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Million Tape Mfg. Co. (India) Regd., 2640, Hamilton Rd., Delhi 110006.
Motilal Dulichand, 20, Indl. Est., Kanpur 208012.
Tapes & Polymers, Atur House, Dr. A. Besant Rd., Bombay 400018.
Todi & Co., Tulsi Pipe Rd., Lower Parel, Bombay 400013.
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Gujarat

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Karnataka

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Maharashtra

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Morarji Peraj & Co. (Talpatriwala), 138, Masjid Bunder Rd., Bombay 400003.
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Ramdas Plastic Mfg. Co. Pvt. Ltd., A-47, H Block, MIDC, Pimpri, Pune 411018.
Ratanshi Lalji, Rasul Jivaji Comp., Jacob Circle, Bombay 400011.
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Tamil Nadu

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Calcutta Canvas Co., 144-A, Naick St., Madras 600001.
Indian Tarpaulin Inds., 95, N.S.C. Bose Rd., Madras 600001.
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Uttar Pradesh

J. K. Jute Mills Co., Kamala Tower, Kanpur 208001.
Kanpur Tent Factory, 89/208, Bansmandi, Kanpur 208001.
Kanpur Weaving & Inds. Works, Indl. Area, Kanpur 208012

West Bengal

Apollo Tent Tarpaulins Co., P-4, New Howrah Bridge Approach Rd., Calcutta 700001.
Automatic Tent Mfg. Co., 4, Synagogue St., Calcutta 700001.
Bengal Tent Factories Pvt. Ltd., 40, Dharamtolla Rd., Belur 711402.
Bengal Waterproof Works Ltd., 41, Shakespeare Sarani, Calcutta 700016.
Birkmyre Bros. Pvt. Ltd., 87, Stephen House, Calcutta 700001.
Calcutta Proofing & Paulin Goods Mfg. Pvt. Ltd., 62, Alipore Rd., Calcutta 700027.
Calcutta Tent Mfg. Co., 1, Chitpurghat Lane, Calcutta 700002.
Goyalka Bros., P-4, New Howrah Bridge Approach Rd., Calcutta 700001.
Gungadhur Banerjee & Co. Pvt. Ltd., 'Bakulia House', Kidderpore, Calcutta 700023.
India Canvas & Tarpaulin Co., 81A, C.R. Avenue, Calcutta 700012.
India Waterproof Ltd., 13, Brabourne Rd., Calcutta 700001.
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Jardine Henderson Ltd., 4, Clive Row, Calcutta 700001.
Jem & Co., Mercantile Bldgs., Lall Bazar St., Calcutta 700001.
Madhoprasad Mahabirprasad (Supplies) Pvt. Ltd., 4, Synagogue St., Calcutta 700001.
Modi Ind., 55, Canning St., Calcutta 700001.
Modi Trading & Mfg. Co., 10. Clive Row, 5th Flr., Calcutta 700001.
New India Proofing Co., Calso Park, Calcutta 700039.
Premier Canvas Co., 28, N. Subhas Rd., Calcutta 700001.
Shew Prosad Bishnu Prosad, 11, D. Rakhit Lane, Calcutta 700005.
Sircar Bros. Pvt. Ltd., 26-1, S. N. Roy Rd., Calcutta 700001.
Sunrise Trdg. Co., 3/C, N. Lohia Lane, Calcutta 700007.
Tent Tarpaulin Indl. Corpn., 3/C, N. Lohia Lane, Calcutta 700007.
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Andrew Yule & Co. Ltd., 8, Clive Row, Calcutta 700001.
Bery Machinery Mfrs. Pvt. Ltd., 135. B.R.B. Bose Rd., Calcutta 700001.
Bharat Engg. Ind., 16, Bonefield Lane, Calcutta 700001.
Britannia Engg. Co. Ltd., 3, N. Subhas Rd., Calcutta 700001.
Heavy Castings Pvt. Ltd., 6/9, Race Course, Coimbatore 641018.
Marshall Sons & Co. India Ltd., 75C, Park St., Calcutta 700016.
Samuel Osborn India Ltd., 1, Acharya J. Bose Rd., Calcutta 700001.
Shome Bros. & Co., 29, R.N. Mookherjee Rd., Calcutta 700001.
Small Tool Mfg. Co. of India Ltd., Faraday House, P-17, G.C. Ave., Calcutta 700013.
Steelsworth Ltd., 17, Ganesh Ch. Ave., Calcutta 700013.
Taps & Dies Ltd., P-17, G. Chandra Ave., Calcutta 700013.
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Indian Telecommunication Equipment Co., 235, Haqiqat Nagar, Delhi 110009.
Jayant Inds., 33, Naik Nivas, 30, Benham Hall Lane, Bombay 400004.
Metro Ind. Works, 95, B. Ghosh Rd., Calcutta 700040.
Superphone India Pvt. Ltd., 18, Karve Rd., Bombay 400004.

TELEVISION SETS & COMPONENTS

Acharya Electronics Ltd., 38-C, MIDC Indl. Area, Hingna Rd., Nagpur 440001.
Amber Television Pvt. Ltd., 1/53, MIDC, Marol, Andheri East, Bombay 400093.
Belltek Electronics Pvt. Ltd., A-80, Naraina Indl. Area, Phase I, New Delhi 110028.
Bharat Television Ltd., Industries Manor, Prabhadevi, Bombay 400025.
Bhatty Electronics Corpn., 98, Ind. Est., Kandivli, Bombay 400067.
Bigston T.V., C-223, Rewari Ind. Area, Mayapuri Phase II, New Delhi 110027.
Canon Electronics Pvt. Ltd., DSID Complex 1, Wazirpur Indl. Area, New Delhi 110052.
Debsons Pvt. Ltd., 11, Sooterkin St., Calcutta 700072.
Dynavision Ltd., 1, Padmanabhanagar, Guindy Rd., Madras 600020.
Elcompo Electronic Inds. Pvt. Ltd., 1-2, Instronics Campus, Thiruvanmiyur, Madras 600041.
Electronics Corpn. of India Ltd., Ind. Dev. Area, Cherlapalli, Hyderabad 500762.
Ferry Electronics, 291, Lajpatrai Mkt., Delhi 110006.
Goa Electronics Ltd., Shree Saraswati Mandir Bldg., 18th June Rd., Panaji 403001. (Goa).
Hi-Beam Electronics Pvt. Ltd., Madras 600020.
Industrial Gases Ltd., Engg. & Consultancy Dn., P. Box 853, Calcutta 700001.
Jupiter Radios (Regd.), C-46, Okhla Indl. Area, Phase II, New Delhi 110020.
Kannan Electronics Pvt. Ltd., 191, Usman Rd., Madras 600017.
Kartari Electronics, Wagle Ind. Estate, Thane 400604.
Kay Jaytroniks Ltd., 10, Abdul Razack St., Saidapet, Madras 600015.
Konark Television, B2 & B3 Indl. Estate, Bhubaneswar 751010.
Kwality Electronics, 73, Port Mills Rd., Perambur, Madras 600011.
Lal Bros., 2, Ritchie St., Madras 600002.
Leysure Sales (India), 56, Panchratna, Opera House, Bombay 400004.
Mac Electronics, 18, Steel Mould Indl. Estate, Nagarvel Hanuman Rd., Sukhramnagar, Ahmedabad 380023.
Mandelia Electronics Pvt. Ltd., Century Bhavan, Dr. A. Besant Rd., Bombay 400025.
MCE Products Sales Service Pvt. Ltd., 220, Okhla Indl. Estate, New Delhi 110020.
Mecotronics Pvt. Ltd., 11A/1, Mount Rd., Madras 600002.
Mustaang Electronics Pvt. Ltd., 78, Lattice Bridge Rd., Adyar, Madras 600020.
North India Electronics Pvt. Ltd., D-6/1, Rana Pratap Bagh, Delhi 110007.
Orient Vision Ltd., 139, Kodambakkam High Rd., Madras 600034.
Plastart (Electronics Dn.), 1423, Shukrawarpeth, Pune 411002.
Polestar Electronics Pvt. Ltd., 71/11, Mowbrays Rd., Alwarpet, Madras 600018.
Riico Ltd., 28-B, Takhte Shahi Rd., Jaipur 302004.
Samtel (India) Ltd., 50-51, Comm. Centre, New Friends' Colony, New Delhi 110065.

Scanovision Pvt. Ltd., 28, Electronic Complex, Kushaiguda, Hyderabad 500762.
Shyam Antenna Electronics Pvt. Ltd., L.N.H.O. Plot No. 3, Kulapati K.M. Munshi Mrg., Bombay 400007.
Sinclaire Television Pvt. Ltd., Cibertronix, 1-10-197/4, 1st Flr., Ashok Nagar, X Rd., Hyderabad 500020.
Skantrons Pvt. Ltd., 75, Bajaj Bhavan, N. Point, Bombay 400021.
Sona Electronics Pvt. Ltd., Type 11/24, V.S. Instronic Estate, Madras 600041.
Sudarshan Electronic Corpn., 28, Jolly Maker Chamber 1, Nariman Point, Bombay 400021.
Suman Electronics, 24, Daryaganj, New Delhi 110002.
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Telerad Pvt. Ltd., Chandivali, Saki Vihar Rd., Bombay 400072.
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Televisco (Eastern) Pvt. Ltd., 2, Waterloo St., Calcutta 700069.
Television & Components Pvt. Ltd., Plot 57, GIDC Indl. Estate, Naroda, Ahmedabad 382330.
Televista Electronics Pvt. Ltd., 79, Dr. A. Besant Rd., Bombay 400018.
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Uptron India Ltd., 203, Dalamal Tower, N. Point, Bombay 400021
WEBEL Television Pvt. Ltd., 225E, Acharya J. C. Bose Rd., Calcutta 700020.
Weston Electroniks Ltd., 243, Okhla Ind. Estate, New Delhi 110020.

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Agronic Services, 201, Shiv Shakti Indl. Estate, LBS Mrg., Ghatkopar West, Bombay 400086.
Arun Electronics Pvt. Ltd., B-125/126, Anand Indl. Estate, Saki Vihar Rd., Bombay 400072.
Avery India Ltd., 8, N. Morarjee Mrg., Bombay 400038.
Blue Steel Engrs. Pvt. Ltd., 144-A-Z, Ind Est., Fergusson Rd., Bombay 400013.
Conin Prakriti Instrumentation, 16, Rajindra Nagar, Indl. Estate, Mohannagar, Ghaziabad 201007. U.P.
Control Dynamics Co., 1008, Raheja Centre, N. Point, Bombay 400021.
Empire Machine Tools, Empire House, 414, S. Bapat Mrg., Bombay 400013.
Fuel Instruments & Engrs. Pvt. Ltd., Ichalkaranji 416115. (Kolhapur Dist.).
Hazari Trading Co., 5, Bhagat Singh Rd., Bombay 400001.
Hillbrooks Dynamics Co., Rayala Bldgs., 781, Mount Rd., Madras 600002.
Kartar & Co. India, 60/1, Chowringhee Rd., Calcutta 700020.
Kaybee Instruments & Equipment Corpn., Arun Chambers, Tardeo, Bombay 400034.
Precision Instruments & Electronics (Madras) Pvt. Ltd., 50-B, Lattice Bridge Rd., Adyar, Madras 600020.
Ruttonsha Simpson Pvt. Ltd., International House, LBS Marg, Vikhroli, Bombay 400083.
S. C. Dey & Co., 106-C, Raja Dinendra St., Calcutta 700004.
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Yamuna Digital Electronics Pvt. Ltd., 8-2-269, Rd. No. 1, Banjara Hills, Hyderabad 500034.

TEXTILE AUXILIARIES

Gujarat

Alipo Chemicals, 49, GIDC Indl. Estate, Makarpura Rd., Vadodara 390010.
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New India Ind. Ltd., Jetalpur Rd., Vadodara 390005.
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Ultra Colour Corpn., Opp. Old Khadia Chowky, Sir Chunibhai Rd., Ahmedabad 380001.

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Chemicals & Auxiliaries Services Pvt. Ltd., 813, Raheja Centre, 214, N. Point, Bombay 400021.
Chemiplast Inds., 404, Rewa Chambers, New Marine Lines, Bombay 400020.
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Columbia Chemi-Colour Ind. Pvt. Ltd., Plot No. 81, Dr. A. Besant Rd., Bombay 400018.
Creative Chemicals Pvt. Ltd., 39/3, Shankersheth Rd., Pune 411009.
Crescent Dyes & Chemicals Ltd., Crescent House, Ballard Estate, Bombay 400038.
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Dai-Ichi Karkaria Pvt. Ltd., Liberty Bldg., New Marine Lines, Bombay 400020.
Das & Co., Das Chambers, Dalal St., Bombay 400023.
Enterprise & Management Pvt. Ltd., 89, Medows St., Bombay 400023.
Eskay Chemical Corpn., 22-D, Parsi Bazar St., Bombay 400001.
Fibrolite Auxiliaries, Shamnagar, Jogeshwari, Bombay 400060.
Gandhi Parekh Investment Corpn. Pvt. Ltd., Maker Bhavan No. 2, 18, New Marine Lines, Bombay 400020.
Gems Inds., A-30, MIDC, Marol Ind. Area, Mahakali Caves Rd., Andheri East, Bombay 400093.
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Hazrat & Co., Warden House, Sir P. M. Rd., Bombay 400001.
Hico Products Pvt. Ltd., Mogul Lane, Mahim, Bombay 400016.
Indokem Ltd., Fort House, 221, Dr. D. Naoroji Rd., Bombay 400001.
Kumudchandra & Co., 29, Dalal St., Bombay 400023.
L.N. Chemical Inds., 296, Samuel St., Bombay 400003.
Mahavir Chemical Inds. Pvt. Ltd., 3, Savla Chambers, 40-A, Cawasji Patel St., Bombay 400001.
Mather & Platt Ltd., 8, Graham Rd., Ballard Estate, Bombay 400038.
Mazda Ind. Chemicals Pvt. Ltd., Mazda Ind. House, Off. Haines Rd. Worli Naka, Bombay 400018.
Mill Factors Corpn., Advani Chambers, Sir P. Mehta Rd., Bombay 400001.
Ormerods (I) Pvt. Ltd., Bank of Baroda Bldg., Apollo St., Bombay 400023.
Parekh Dyechem Industries Pvt. Ltd., Mafatlal House, Backbay Recl., Bombay 400020.
Parimal Inds., 337, Raviwar Peth, Pune 411002.

Refind Products Corpn., 10, Bell Building, Sir P. Mehta Rd., Bombay 400001.
Sandoz (I) Ltd., (Dyes & Chemical Division), P.B. No. 6596, Worli, Bombay 400018.
Sardesai Bros. Ltd., 82, Advent, 12-A, Gen. J. Bhosle Marg, Bombay 400021.
Sunbeam Monochem Pvt. Ltd., 339/41, Samuel St., Bombay 400003.
Surfactant Ltd., 401/405, Jolly Bhavan, 10, New Marine Lines, Bombay 400020.
Tarsema Textile Traders, 11, Noble Chambers, S. A. Brelvi Rd., Bombay 400001.
Texspan, 9/E, Elphinstone Rd., Parel, Bombay 400012.
Victor Trading & Engg. Co., Victor House, Jacob Circle, Bombay 400011.

West Bengal
Crescent Dyes & Chemicals Ltd., 34, Chowringhee, Calcutta 700071.

TEXTILE MACHINERY

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Ahmedabad Victoria Iron Works Co. Ltd., Dudheshwar Rd., Ahmedabad 380001.
Allied Textile Leather Inds., 25, Harsidh Chambers, Ashram Rd., Ahmedabad 380013.
Amee Engg., Jal Darshan, Ashram Rd., Ahmedabad 380009.
Ara Ind., Opp. Chisti Chambers, Outside Shahpur Gate, Ahmedabad 380001.
Bhagvati Undercasing Manufg. Works, Tavdipura Rd., Ahmedabad 380004.
Bharat Ind., Girdhar Chambers, Gandhi Rd., Ahmedabad 380001.
C.B. Sutaria Bros., Cross Lane, Ahmedabad 390002.
Cambay Saw Mills, Madan Zampa Rd., Vadodara 390001.
Himson Textile Engg. Inds. Pvt. Ltd., Hiralal Colony, Ashwanikumar Rd., Surat 395008.
Huns Engg., Plot No. 7/8, Rd. No. 8-A, P.B. No. 2, Indl. Estate, Udhna 394210.
Indequip Engg. Ltd., Nr. Indl. Trg. Instt., Naroda, Ahmedabad 382325.
Indian Textile Engrs., 105, Navnit Bhuvan, Maninagar, Ahmedabad 380008.
Indl. Machinery Mfrs. Pvt. Ltd., Newar Ahmedabad New Cotton Mills, Off Amraiwadi Rd., Ahmedabad 380008.
Karsandas Bachardas & Sons, Jaldarshan, Ashram Rd., Ahmedabad 380009.
National Machinery Mfg. Works, Panchal Indl. Colony, Shahibaug, Ahmedabad 380004.
Navayug Industrials, 23, Govt. Indl. Estate, Kandivli West, Bombay 400067.
Pears Ind. Engineers Pvt. Ltd., Station Rd., Navsari 396445.
Pioneer Engg. Works, Amdupura, Naroda Rd., Ahmedabad 380002.
Sarabhai Machinery Division, C/o Bakubhai Ambalal Pvt. Ltd., Shantisadan Estate, Mirzapur Rd., Ahmedabad 380001.
Sen & Mettenheimer Pvt. Ltd., Cama Hotel Bldg., Khanpur, Ahmedabad 380001.
Shri Dinesh Mills Ltd., P.B. No. 65, Padra Rd., Vadodara 390005.
Shri Madhusudan Textiles, A.P. Ind. Estate, Near Gujarat Housing Colony, Ahmedabad 380021.
Standard Materials Co., Narottam Bldg., Kapasia Bazar, Ahmedabad 380002.
Suessen Textile Bearings Ltd., National Highway No. 8, Vadodara 390010.
Swastik Bansidhar Engg. Pvt. Ltd., Amraiwadi, Ahmedabad 380008.
Swastik Engg. & Mfg. Co. Pvt. Ltd., Bachucharaji Rd., Vadodara 390018.
Swastik Textile Trading Co. Pvt. Ltd., 23, M. Hirabai Market, Railwaypura, Ahmedabad 380002.
Tarkes Engg. Works, H. A. Market, Kapasia Bazar, Ahmedabad 380002.
Textile Appliances & Instruments Co. Pvt. Ltd., 81, Alkapuri, Vadodara 380001.
Textile Machinery Mfg. Co., Nr. Kamdar Maidan, Gomtipur Rd., Ahmedabad 380021.
Vasant Engg. Ltd., Shree Yamuna Mills Rd., Pratapnagar, Vadodara 390004.
Venus Engg. Co., Near Vora's Roja, Kankaria Rd., Ahmedabad 380022.
Winding Spares Machinery Co., 4, Textile Technicians Society, Navrangpura, Ahmedabad 380009.

Karnataka
Mysore Machinery Mfrs. Ltd., 5th Mile, Mysore Rd., Bangalore 560026.
Stumpp Schuele & Somappa Pvt. Ltd., Hosur Rd., Bangalore 560034.

Madhya Pradesh
Central India Machinery Mfg. Co. Ltd., P.O. Birlanagar, Gwalior 474004.

Maharashtra
Ambica Mfrs., B-13, Noble Chambers, Ghoga St., Bombay 400001.
Amritalakshmi Machine Works, Warden House, Sir P. M. Rd., Bombay 400001.
Batliboi & Co. Ltd., Apeejay House, Dr. V.B. Gandhi Mrg., Bombay 400023.
Binani Machinery Corpn., Andheri-Kurla Rd., J.B. Nagar, Andheri East, Bombay 400059.
Calico Ind. Engrs., Chakala Works, Andheri, Bombay 400093.
Casablancas Gannon Engg. Ltd., Opp. Indl. Colony, Shastri Marg, Bombay 400078.
Commonwealth Textiles, Great Western Bldg., 130/132, Bombay Samachar Mrg., Bombay 400001.
Copper Rollers Pvt. Ltd., Gupta Mills Estate, Darukhana, Reay Rd., Bombay 400010.
D. Parikh Engg. Works, 115, Marol Co-op. Indl. Est., M. Vissanji Rd., Bombay 400059.
Damodar & Sons Pvt. Ltd., Saheb Bldg., 195, Dr. D. N. Rd., Bombay 400001.
Daver-NGM Pvt. Ltd., 70, Lakshmi Insurance Bldg., Sir P. Mehta Rd., Bombay 400001.
Garlic Engg., 414, S. Bapat Marg, Bombay 400013.
Guest, Keen, Williams Ltd., L.B. Shastri Marg, Bhandup, Bombay 400078.
Harish Enterprises, 19, Parsi Panchayat Rd., Andheri East, Bombay 400069.
Hazarat & Co., Warden House, Sir P. M. Rd., Bombay 400001.
Inarco Ltd., Advent, 12-A, Foreshore Rd., Bombay 400021.
Indian Card Clothing Co. Ltd., Bombay-Pune Rd., Pimpri, Pune 411018.
Kisi-Chem Dyestuffs. (Engg. Divn.), 33, Hedavkarwadi, Gokhale Rd. Dadar, Bombay 400028.
Machinery Mfrs. Corpn. Ltd., Eucharistic Congress Bldg. No. 2, 5, Apollo Bunder Road, Bombay 400039.
Mafatlal Engg. Industries Ltd., Mafatlal Centre, Nariman Point, Bombay 400021.
Marchon Textile Inds. Pvt. Ltd., Saheb Bldg., 195, Dr. D. N. Rd., Bombay 400001.
New Standard Engg. Co. Ltd., N.S.E. Estate, Ram Mandir Rd., Goregaon East, Bombay 400063.
Peass Industrial Engrs. Pvt. Ltd., Cambatta Bldg., 4th Flr., Southwest Side, Churchgate, Bombay 400020.
Premier Ind. Works, 420, Off L. Jamshedjee Rd., Mahim, Bombay 400016
Primatex Machinery Pvt. Ltd., Post Box 5, Manpada Rd., Dombivli 421204, Thane Dt.

Ronson Indl. Engrs. Pvt. Ltd., 126, Delisle Rd., Lower Parel, Bombay 400013.

Sanjab Engg. Works, 23, Nadiadwala Colony No. 1, Malad West, Bombay 400064.

Sardar Textile Engrs. Pvt. Ltd., Seksaria Indl. Estate, S.V. Rd., Malad, Bombay 400061.

SBM Group of Industries, 136, Great Western Bldg., N. Master Rd., Extn., Bombay 400023.

Shakti Textile Engrs. Pvt. Ltd., Manohar Ind. Estate, Chincholi Bunder Rd., Malad, Bombay 400064.

Special Steels Ltd., Dattapada Rd., Borivli East, Bombay 400066.

Standard Fabricators (I) Pvt. Ltd., Co-op. Insurance Bldg., Sir P. Mehta Rd., Bombay 400001.

Star Textile Engg. Works Ltd., Dhanraj Mahal, C. M. S. Marg, Bombay 400039.

T. Maneklal Mfg. Co. Ltd., Vaswani Mansion, D. Vachha Rd., Bombay 400020.

Texind Corpn. Pvt. Ltd., Kermani Bldg., Sir P. Mehta Rd., Bombay 400001.

Textile Art Machinery, 145, Adarsh Indl. Estate, Sahar Rd., Chakala, Andheri East, Bombay 400093.

Textile Supplies Syndicate (I) Pvt. Ltd., India House, Opp. G.P.O., Bombay 400001.

Venus Textile Engineers, 40, Alka, B Rd., Churchgate, Bombay 400020.

Voltas Ltd., Voltas House, J.N. Heredia Mrg., Bombay 400038.

Zell-Ate Ltd., Indian Globe Chambers, Fort St., Bombay 400001.

Punjab

Pearl Mechanical Engg. & Foundry Works Pvt. Ltd., 425-427, Indl. Area A, Ludhiana 141003.

S. R. K. Textiles, 193, East Mohan Nagar, Amritsar 143001.

Tamil Nadu

Allied Engg. Ind., 27A, Bharathi Park Rd., Coimbatore 641011.

Jeestex Engg. Pvt. Ltd., Ganapathy, Coimbatore 641006.

Lakshmi Automatic Loom Works Ltd., Hosur Indl. Complex, Hosur 635126.

Lakshmi Card Clothing Mfg. Co. Pvt. Ltd., P. O. Kuppuswamy Naidupuram 638662, Palladam Taluk. Coimbatore Dist.

Lakshmi Machine Works Ltd., Perianaickenpalayam, P.O. S.R.K. Vidyalaya, Coimbatore 641020.

Madras Spindle Co. Ltd., 3, C. V. Raman Rd., Alwarpet, Madras 600018.

Texmaco Ltd., 333, Avanashi Rd., Coimbatore 641018.

Uttar Pradesh

Lohia Machines Pvt Ltd., C-3. Panki Ind. Estate. Kanpur 208022.

West Bengal

APV-Texmaco Ltd., 2, Jessore Rd., Dum Dum, Calcutta 700028.

Machinery Mfrs. Corpn., P61/B, Circular Garden Reach Rd., Calcutta 700043.

Nipha Machinery Mfrs. Pvt. Ltd., 25, N. Subhas Rd., Calcutta 700001.

Spin-Well Pvt. Ltd., 6, Dilarjang Rd., Cossipore, Calcutta 700002.

Textile Machinery Corpn. Ltd., P.O. Belgharia, Calcutta 700056.

TEXTILE MACHINERY & SPARES

Delhi

Indicators Mfg. Co., 4636, Deputyganj, S. Bazar, Delhi 110006.

Gujarat

Anant Inds., 10, Shri Indl. Estate, Tavdipura, Shahibagh, Ahmedabad 380004.

Bhagwati Industries, 56, Shrimali Socy., Navrangpura, Ahmedabad 380002.

Bharadia Inds., Behind Shree Bansidhar Mills, Naroda Rd., Ahmedabad 380025.

Bharat Techno Mech. Ind. Pvt. Ltd., Maneklal Rd., Navsari 396445.

Bharat Textile Works, Nagarwel Hanuman Rd., Rakhial, Ahmedabad 380023.

Climax Engg. Co. Pvt. Ltd., Naroda Rd., Ahmedabad 380002.

Continental Engg. Inds. Pvt. Ltd., Pushpak, Khanpur, Ahmedabad 380001.

Delux Machinery Mfrs. Pvt. Ltd., Tramway Rd., Wadhwan City 363030.

Erhardt Leimer (India) Ltd., Survey No. 320, Odhav Rd., Ahmedabad 382410.

Gujarat Bobbins Inds., Rupavri Rd., Bhavnagar 364001.

Gujarat Corpn. India Pvt. Ltd., Naroda Rd., Ahmedabad 380002.

Gujarat Pickers Inds., Nari Rd., Bhavnagar 364001.

H. Mansuri & Sons, Dariapur, Dabgarwad, Ahmedabad 380001.

Indequip Engg. Ltd., Naroda, Ahmedabad 382325.

India Reeds Manufg. Co., Rakhial Rd., Ahmedabad 380021.

Jayantilal S. Gandhi & Co. (Machinery Dn.), Railwaypura, Ahmedabad 380002.

Jeckswell Engg. Works, 17, Gujarat Udyognagar, Bardolpura, Ahmedabad 380016.

K. K. Engg. Works, Tawdipura, Shahibaug, Ahmedabad 380004.

Kothari Textile Inds., Post Box No. 4, Surendranagar 363001.

Loom Drop Pins Mfg. Co., Kapasia Bazar, Ahmedabad 380002.

M.K. Spindle Mfrs. P. Ltd., 1, Ahmedabad Audyogic Vasahat, Dudheswar Rd., Ahmedabad 380001.

Mashruwala & Bros., Vohra Bldg., Kapasia Bazar, Ahmedabad 380002.

Metal Moulders Pvt. Ltd., Dudheswar Rd., Ahmedabad 380001.

Metro Wood & Engg. Works Pvt. Ltd., "NK" House, Ashram Rd., Navrangpura, Ahmedabad 380009.

N. I. F. Mechanical Works, Near Thakarbapa Ashram, Chhapara Rd., Navsari 396445.

N.P. Kanirwala Pvt. Ltd., 148, Mukti Medan, Maninagar, Ahmedabad 380008.

National Machinery Mfg. Works, Tawdipura, Ahmedabad 380004.

New Ambica Engg. Works, 30, Suprabhat Ind. Estate, Bardolpura, Ahmedabad 380016.

New India Ind. Ltd., Jetalpur Rd., Vadodara 390005.

New India Pickers Works, Near Khandni Sheri, Jamalpur, Ahmedabad 380001.

Pickers Ltd., Ellis Bridge, Ahmedabad 380006.

Prominent Textile Engg. Co., Pakhaji's Kuva Compound, Tadvipura, Shahibaug, Ahmedabad 380004.

Ranpur Inds., Ranpur 363610, Ahmedabad Dist.

Shreeji Engg. Works, 1628/102, O/S Dariapur Gate, Jubilee Mills Rd., Ahmedabad 380010.

Victory Industrial Works, M.I.G., 72, Shastrinagar, Bhavnagar 364003.

Vijay Mechanic Works, R. Vardhaman Rd., Wadhwan City 363030.

Vora Inds., 19, Udyognagar, Surendranagar 363001.

Wispmac Pvt. Ltd., AMI Technicians Socy., Near Gandhi Bridge, Ahmedabad 380009.

Zenith Engg. Works, Tramway Rd., Wadhwan City 363030.

Haryana

Kwality Indl. Works, 17G, Indl. Area, N.I.T., Faridabad 121002.

Swastika Engg. Works, G.T. Rd., Panipat 132103.

Karnataka

Lakshmi Automatic Loom Works Ltd., Unity Bldg. Annexe, 72, Mission Rd., Bangalore 560027.

Mysore Machinery Mfrs. Ltd., 5th Mile, Mysore Rd., Bangalore 560026.

Sunrise Industrials, 5th Main Rd., Sriramapuram, Bangalore 560021.

Kerala

Bharath Engg. Inds., Marathakkara 680320. (Trichur Dist.)

Maharashtra

Bakubhai Ambalal, Kaiser-I-Hind Bldg., B. Estate, Bombay 400038.

Benelon Ind., Sir Vithaldas Chambers, Apollo St., Bombay 400023.
Bharat Ind., R. No. 320, Bharat Ind. Estate, Jivraj Rd., Sewree, Bombay 400015.
Calico Indl. Engrs., Chakala Works, Andheri, Bombay 400093.
Continental Healds Mfg. P. Ltd., Flat 140, 23, Bakehouse Lane, Bombay 400001.
Dalal Engg. Ltd., 36/37, Jolly Maker Bhavan II, Nariman Point, Bombay 400021.
Dodia Engrs., 8, Apurva Ind. Estate, 88, Makwana Rd., Andheri East, Bombay 400059.
Eastern Card Clothing Co. Pvt. Ltd., Nirmal Ind. Estate, 29th Road, Bombay 400022.
Eck-Haubold Laxmi Ltd., Sir Vithaldas Chambers, Bombay Samachar Mrg., Bombay 400023.
Engg. & Agencies Pvt. Ltd., French Bank Bldg., Homji St., Bombay 400001.
Engineer Bros., Sir Vithaldas Chambers, Apollo St., Bombay 400023.
Hind-Soka Enterprises, Hind Saurashtra Ind. Estate, Marol Naka, Bombay 400059.
Hindtex Engrs. Pvt. Ltd., Janmabhoomi Bhavan, Ghoga St., Bombay 400001.
John T. Hardaker (I) Pvt. Ltd., G. Kadam Mrg., Lower Parel, Bombay 400013.
Laxmi Paper Box Works, 49, Krishna Nagar, Parel, Bombay 400012.
Marathe Engg. Ind., Ind. Estate, Miraj 416410.
Mather & Platt India Ltd., Hamilton House, Graham Rd., Bombay 400038.
Modern Engg. & Marketing Enterprises, 234, Jaygopal Indl. Estate, 510, Bhavani Shankar X Rd.. Dadar, Bombay 400028.
National Wire Heald Works Pvt. Ltd., Sir Vithaldas Chambers, 8, Homi Mody St., Bombay 400023.
Navbharat Inds., Lad Nivas, 42-62, Ardeshir Dady St., Bombay 400004.
New Nagauri Card Can Mfg. Co., 97-E, Morland Rd., Naya Nagar, Bombay 400008.
Prabhat Engg. Co., 52/54, Popatwadi, Kalbadevi Rd., Bombay 400002.
Precision Textile & Engg. Components Pvt. Ltd., Rajabhadur Compd., Opp. Allahabad Bank, Apollo St., Bombay 400023.
Sarvodaya Reeds Mfg. Co., 137/41, Samuel St. (Khoja Galli), Bombay 400009.
Shakti Textile Engrs. Pvt. Ltd., Manohar Indl. Estate, Malad, Bombay 400064.
Texspares Machine Works, B-16/18, Noble Chambers, Ghoga St., Bombay 400001.
Timbco Textile Ind., 22, Bombay Timber Mkt., Reay Rd., Bombay 400010.
Usha Textile Inds.. 451, Sakhar Peth, Solapur 413002.

Punjab

Astra Engg. Inds., E-28, Focal Point, Ludhiana 141010.
Sachdeva Engg. Works, P.O. Rayon Silk Mills, Chheharta, Amritsar 143001.

Tamil Nadu

Guruprasad Textile Engrs., 9/8, Ramarkovil St., Ramnagar, Coimbatore 641009.
Jayalakshmi Engg. Mfrs. Pvt. Ltd., P. B. No. 5306, Coimbatore 641029.
Kunal Engg. Co., 1-C, Eldorado, 112, Nungambakkam High Rd., Madras 600034.
L.G. Balakrishna & Bros. Ltd., Ganapathy Works, Coimbatore 641006.
Madras Rings & Travellers Mfg. Co., 4, East Spurtank Rd., Chetput, Madras 600031.
Nathan Inds., Ganapathy, Coimbatore 641006.
P. Raju Naidu & Co., Ganapathy, Coimbatore 641006.
Premier Synthetics (India) Pvt. Ltd., 5/5, Headquarters Rd., Coimbatore 641018.
Ramakrishna Industrials Pvt. Ltd., Peelamedu, Coimbatore 641004.
Ramakrishna Industries Pvt. Ltd., Peelamedu, Coimbatore 641004.
Ramaraj Machine Works, Bharathi Nagar, Ganapathy, Coimbatore 641006.
Sovereign Engrs. Pvt. Ltd., Indl. Estate, Kurichi, Coimbatore 641021.
Textool Co. Ltd., P.O. Ganapathy, Coimbatore 641006.
Universal Machine Works, 8/76-A, 100 Ft. Rd., Tatabad, Coimbatore 641012.
Venkatapathy Foundry, 307, Kamarajar Rd., Peelamedu, Coimbatore 641004.

West Bengal

Bharat Ind. Corpn. Pvt. Ltd., 13, N. Kar Lane, Salkhia, Howrah 711106.
Indian Pin Manufg. Co. Pvt. Ltd., World Trade Centre, 14/1B, Ezra St., Calcutta 700001.
Jumac Spares Mfg. Corpn., 3, Princep St., Calcutta 700013.
Kingsley Corpn. Pvt. Ltd., 7, C. R. Ave., Calcutta 700072.
Machinery Mfrs. Corpn. Ltd., P61/B, Circular Garden Reach Rd., Calcutta 700043.
Ravi Machine Tools & Engg. Works, 12/1, Chintamoni Dey Bathing Ghat Rd., Ramakrishnapur, Howrah 711101.
Spinning Accessories Pvt. Ltd., Laha Point House, 7, Chittaranjan Ave., Calcutta 700013.

TEXTILE MILLS

Andhra Pradesh

Abirami Cotton Mills Pvt. Ltd., Sulurpeta 524121 (Nellore Dist.).
Adoni Spg. and Wvg. Co., P. B. No. 42, Adoni 518301.
Andhra Co-op. Spinning Mills Ltd., P.B. No. 36, Timmancherla, Guntakal 515802, Anantapur Dist.
Andhra Cotton Mills Ltd., Shriniwasa Nagar, Proddatur 516360 (Cuddapah Dist.).
Azam Jahi Mills, Narsampet Rd.. Warangal 506002.
Chirala Co-op. Spg. Mills Ltd., Chirala 523155, Guntur Dist.
Chittoor Textiles Ltd., Madras-Bangalore Trunk Rd., Chittoor 517001.
Cuddapah Spg. Mills Ltd., 3/159, Nagarajupet, Cuddapah 516001.
Dewan Bahadur Ramgopal Mills Ltd., Elchiguda, Secunderabad 500003.
Hemalatha Textiles Ltd., Pedakakani, Guntur 522509.
Jayanti Ramchandrappa Shetty Mills Pvt. Ltd., Rayayurg 515865.
Karimnagar Co-op. Spinning Mills Ltd., Ramagundam 505208.
Madanapalle Spg. Mills Ltd., C.T.M. P.O. 517319, Chittoor Dist.
Natraj Spg. & Wvg. Mills, Nirmal 504106, Adilabad Dist.
Netha Spg. Mills, 608, Elchiguda, Secunderabad 500003.
Patodia Spg. Mills, 30, Unity House, Abid Rd., Hyderabad 500001.
Penguin Textiles Ltd., Tarnaka, Uppal, Hyderabad 500039.
Priyadarshini Spg. Mills Ltd., 8-3-961/B, Srinagar Colony, Hyderabad 500873.
Rayalaseema Mills Ltd., Rayanagar, Adoni 518301.
Sarvaraya Textiles Ltd., Beach Rd., Kakinada 533001.
Sree Akkamamba Textiles Ltd., Venkatarayapuram, Tanuku 534211.
Sree Satya Narayana Spg. Mills Ltd., P. B. No. 3, Venkatarayapuram, Tanuku 534211.
Sri Venkatachalapathi Mills Ltd., Padmavathinagar, Tirupati 517501.
Super Spg. Mills Ltd., Kirikera 515211, Anantpur Dist.
Suryalakshmi Cotton Mills Ltd., 77, M. Gandhi Rd., Secunderabad 500003.
Telangana Spinning & Weaving Mills Ltd., Balanagar, Hyderabad 500003.
Yemmiganur Spinning Mills Ltd., Yemmiganur 518360. (Bellary Dist.).

Assam

Assam Cotton Mills, Singlimara Rd., Chariduwar, Darang 784111.
Associated Ind. (Assam) Ltd., Chandrapur 781150 (Kamrup Dist.)

Bihar

Bihar Co-op. Weavers Spg. Mills Ltd., Mokameh 803302.
Bihar Cotton Mills Ltd., Phulwarishariff, Patna 801505.
Dumraon Textiles Ltd., Dumraon 802119.
Mahalakshmi Fibres & Ind. Ltd., Ormanjhi 835219.

Delhi

Ajudhia Textile Mills, Azadpur, P.O. Ajudhia Mills, Delhi 110033.
Birla Cotton Spinning & Weaving Mills Co. Ltd., Birla Lines, Delhi 110007.
Delhi Cloth & General Mills Co. Ltd., Bara Hindu Rao, Delhi 110006.
Swatantra Bharat Mills, Najafgarh Rd., New Delhi 110015.

Goa

Chowgule Textile Mills Ltd., Quepem 403705.
Goa Textiles Ltd., Marmagao 403601.

Gujarat

Ahmedabad Advance Mills Ltd., Outside Delhi Gate, Ahmedabad 380001.
Ahmedabad Cotton Manufg. Co. Ltd., No. 17, Outside Sarangpur Gate, Ahmedabad 380001.
Ahmedabad Kaiser-I-Hind Mills Co. Ltd., Outside Raipur Gate, Ahmedabad 380022.
Ahmedabad Laxmi Cotton Mills Co. Ltd., Outside Raipur Gate, Ahmedabad 380022.
Ahmedabad Manufg. & Calico Printing Co. Ltd., (Calico Mills), Outside Jamalpur Gate, Ahmedabad 380022.
Ahmedabad New Cotton Mills Co. Ltd., Near Khokhra Mehmedabad, Ahmedabad 380008.
Ahmedabad New Textile Mills Co. Ltd., Outside Raipur Gate, Ahmedabad 380022.
Ahmedabad Shri Ramakrishna Mills Co. Ltd., Gomtipur Rd., Ahmedabad 380021.
Ajit Mills Ltd., Rakhial Rd., Ahmedabad 380021.
Aruna Mills Ltd., Naroda Rd., Ahmedabad 380025.
Arunoday Mills Ltd., Morvi 363641.
Arvind Mills Ltd., Naroda Rd., Ahmedabad 380025.
Aryodaya Ginning & Mfg. Co. Ltd., Asarva Rd., Ahmedabad 380016.
Aryodaya Spinning & Weaving Co. Ltd., Asarwa Rd., Ahmedabad 380016.
Asarwa Mills Ltd., Asarwa Rd., Ahmedabad 380016.
Asoka Mills Ltd., Naroda Rd., Ahmedabad 380025.
Baroda Spinning & Weaving Co. Ltd., Near Badra Pani Gate, Vadodara 390001.
Bechardas Spinning and Weaving Mills Co. Ltd., Rakhial, Ahmedabad 380021.
Bhalakia Mills Co. Ltd., Kankaria Rd., Ahmedabad 380008.
Bharat Suryodaya Mills Co. Ltd., Amraiwadi, Ahmedabad 380008.
Bharat Vijaya Mills Ltd., Seven Garnala, Kalol 382721.
Bihari Mills Ltd., Mithipur, Khokhra Mehmedabad, Ahmedabad 380008.
Broach Textile Mills Pvt. Ltd., M. Gandhi Rd., Bharuch 392001.
Commercial Ahmedabad Mills Co. Ltd., Near Idgah Chowki, Asarwa, Ahmedabad 380016.
Gaekwar Mills Ltd., Bilimora 396321.
Gandhidham Spg. & Mfg. Co. Ltd., Adipur 370205, Kutch.
Girdhardas Harivallabdas Mills Ltd., Near Girdhanagar Rly. Crossing, Ahmedabad 380016.
Jagfashion Textile Mills Pvt. Ltd., 58, GIDC, Vatva 382445 (Ahmedabad Dt.).
Jupiter Textile Mills, Dadhechi Rd., Ahmedabad 380001.
Kanti Cotton Mills Pvt. Ltd., Mill Rd., Surendranagar 363001.
Mafatlal Fine Spinning & Co. Ltd., Vejalpur Rd., Navsari 396445.
Mahalaxmi Mills Ltd., Vartej Rd., Bhavnagar 364001.
Maharana Mills Pvt. Ltd., Porbandar 360575.
Mahendra Mills Ltd., Kalol, N. Gujarat 382721.
Maheshwari Mills Ltd., Shahibag Rd., Ahmedabad 380004.
Maneklal Harilal Spinning & Mfg. Co. Ltd., Saraspur, Ahmedabad 380018.
Manjushri Textiles, Shahibag, Ahmedabad 380004.
Marsden Spinning & Mfg. Co. Ltd., Rakhial Rd., Ahmedabad 380021.
Mihir Textiles Ltd., Mithipur, Ahmedabad 380008.
Monogram Mills Co. Ltd., Rakhial Rd., Ahmedabad 380021.
Nagri Mills Co. Ltd., Rajpur Rd., Ahmedabad 380021.
Navjiwan Mills Pvt. Ltd., Kalol 382721.
Navsari Cotton & Silk Mills Ltd., Vejalpore Rd., Navsari 396445.
New Asarwa Mills Pvt. Ltd., Saraspur, Ahmedabad 380018.
New Commercial Mills Co. Ltd., Naroda Rd., Ahmedabad 380025.
New Gujarat Cotton Mills Ltd., Outside Dariapur Gate, Ahmedabad 380016.
New Jehangir Vakil Mills Co. Ltd., Nilambag Rd., Bhavnagar 364001.
New Maneckchowk Spinning and Weaving Co. Ltd., Opp. Idgah Gate, Post Asarva, Ahmedabad 380016.
New Rajpur Mills Co. Ltd., Gomtipur Rd., Ahmedabad 380021.
New Shorrock Spinning & Mfg. Co. Ltd., Asarwa Rd., Ahmedabad 380016.
New Swadeshi Mills of Ahmedabad Ltd., Naroda Rd., Ahmedabad 380025.
Niranjan Mills Ltd., Falsawadi Rd., Surat 395003.
Nutan Mills Ltd., via Vora's Roja, Anil Rd., Ahmedabad 380002.
Patel Mills Co. Ltd., Gomtipur Rd., Ahmedabad 380021.
Petlad Textile Mills, Opp. Petlad Station, Petlad 388450.
Raipur Mfg. Co. Ltd., Outside Saraspur Gate, Ahmedabad 380021.
Rajkot Textile Mills, Karansinghji Cross Rd., Rajkot 360001.
Rohit Mills Ltd., Khokhra Mehmedabad, Ahmedabad 380008.
Rustom Mills & Inds. Ltd., Dudheshwar Rd., Ahmedabad 380004.
Sadhana Textile Mill Pvt. Ltd., Ranjit Sagar Rd., Jamnagar 361001.
Sarangpur Cotton Mfg. Co. Ltd., Outside Raipur Gate, Ahmedabad 380022.
Saraspur Mills Ltd., Saraspur Rd., Ahmedabad 380018.
Saurashtra Co-op. Spinning Mills Ltd., Limbdi 363421.
Sayaji Mills, Near Old Rly. Stn., Vadodara 390003.
Shri Amarsinhji Mills Ltd., Post Box 3, Vankaner 363621. Rajkot Dist.
Shri Ambika Mills Ltd., Kankaria, Ahmedabad 380008.
Shri Arbuda Mills Ltd., Rakhial Rd., Ahmedabad 380021.
Shri Bansidhar Spinning & Weaving Mills Ltd., Naroda Rd., Ahmedabad 380002.
Shri Prithvi Cotton Mills Ltd., M. Gandhi Rd., Bharuch 392001.
Shri Shubhlaxmi Mills Ltd., Station Rd., Cambay 388620.
Shri Vivekanand Mills Ltd., Rakhial Rd., Ahmedabad 380001.
Shri Yamuna Mills Co. Ltd., Pratapnagar, Vadodara 390004.
Sidhpur Mills Co. Ltd., Bindu Sarovar Rd., Sidhpur 384151.
Silver Cotton Mills Co. Ltd., Near Jaganath Mahadev, Amraiwadi Rd., Ahmedabad 380008.
Soma Textiles, Rakhial Rd., Ahmedabad 380021.
Surat Cotton Spinning & Weaving Mills Pvt. Ltd., Nawabwadi, Surat 395001.
Surat District Co-op. Spinning Mills, Varachha Rd., Surat 395003.
Surat Textile Mills Ltd., Varachha Rd., Surat 395003.
Tarun Commercial Mills Ltd., Outside Kalupur Gate, Railwaypura, Ahmedabad 380002.
Vijaya Mills Co. Ltd., Naroda Rd., Ahmedabad 380025.
Vikram Mills Ltd., Outside Saraspur Gate, Rajpur, Ahmedabad 380021.
Wintex Mills Ltd., Wintex Rd., Surat 395008.

Haryana

Bhiwani Textile Mills, Birla Colony, Bhiwani 125021.

Elsons Cotton Mills Pvt. Ltd., 23rd Milestone, Mathura Rd., Ballabgarh 121004.
Gopichand Textile Mills Ltd., Hissar Rd., Sirsa 125055.
Hissar Textile Mills, Hissar 125002.
Mohan Spg. Mills, Circular Rd., Rohtak 124001.
Rohtak Textile Mill Ltd., Circular Rd., Rohtak 124001.
Technological Institute of Textiles, Bhiwani 125021.
Shree Saraswati Spinning Mills, P.O. Birla Colony, Bhiwani 125021.
Usha Spinning & Weaving Mills Ltd., 12/1 Milestone, Mathura Rd., Faridabad 121001.

Jammu & Kashmir
Chenab Textile Mills, Jammu Main Rd., Kathua 184101.

Karnataka
Bagalkot Co-op. Spg. Mill Ltd., Bagalkot 587101. (Bijapur Dist.).
Banhatti Co-op. Spg. Mills Ltd., Banhatti 587311. (Bijapur Dist.).
Bellary Spinning & Weaving Co. Ltd., Vinayaknagar, Hospet Rd., Bellary 583101.
Bhadra Spinning Mills Pvt. Ltd., Magadi Rd., Dasarahalli, Bangalore 560010.
Bijapur Co-op. Spinning Mills Ltd., Near Bijapur Rly. Stn., Bijapur 586101.
Binny Ltd., No. 1, Agraharam Rd., Bangalore 560023.
Davangere Cotton Mills Ltd., P.B. No. 201, Davangere 577002.
Gogte Textiles Ltd., 146, Tilakwadi, Belgaum 590006.
Gokak Mills Ltd., Gokak Falls 591308, Belgaum Dist.
Gopalakrishna Textile Mills, Subramanyapura, Bangalore 560061.
Mahaboob Shahi Kulbarga Mills, Gulbarga 585101.
Mahadev Textile Mills, P.B. No. 35, Hubli 580024.
Minerva Mills, Magadi Rd., Bangalore 560023.
Nandi Hasbi Textile Mills Ltd., Nargund 582207, Dharwar Dist.
Ramkumar Mills Pvt. Ltd., No. 1, Subramanyapuram, Bangalore 560011.
Ramkumar Mills Pvt. Ltd., No. 2, Rajajinagar, Bangalore 560010.
Shree Ganesar Textile Mills Ltd., P.B. No. 23, Davangere 577001.
Shree Kathiresan Spinning Mills, Garehatti, Chitradurga 577501.
Sree Chandrodaya Mills Ltd., Chitradurga Rd., Davangere 577001.
Sree Siddeswara Textile Mills Pvt. Ltd., P. B. No. 78, Davangere 577001.
Sree Suryodaya Mills Pvt. Ltd., Yeshwantpur, Bangalore 560022.
Sri Anjaneya Cotton Mills Pvt. Ltd., Davangere 577001.
Sri Krishna Spg. & Wvg. Mills, Subramanyapura, Bangalore 560061.
Sri Krishnarajendra Mills Ltd., Bangalore Rd., Mysore 570003.
Sujata Textile Mills, Nanjangud 571301.

Kerala
Alagappa Textiles (Cochin) Ltd., Alagappanagar 680302, Trichur Dist.
Asok Textiles Pvt. Ltd., Asokapuram, Alwaye 683101.
Calicut Modern Spinning & Weaving Mills Ltd., Somasundarapuram, Chelambra, Kozhikode 673634.
Cannanore Co-op. Spinning Mills Ltd., Cannanore 670006.
Cannanore Spg. & Wvg. Mills Ltd., P.B. No. 204, Cannanore 670002.
Chakolas Spinning & Weaving Mills Ltd., Alwaye 683104.
G.T.N. Textiles Ltd., P.B. No. 101, Alwaye 683101.
Kanthimathy Mills, Ind. Estate, Trivandrum 695019.
Kathayee Cotton Mills Ltd., Post Box No. 6, Alwaye 683011.
Kerala Laxmi Mills Ltd., Pullazhi, Trichur 680001.
Kerala Spinners Ltd., Post Box No. 211, Komalapuram, Aryad North, Alleppey 682001.
Kottayam Textile Ltd., Vedagiri, Kurumallore, Via Ettumanur 686631.
Madras Spinners Ltd., Pampanppallam, Palghat 678007.
Malabar Spg. & Wvg. Co. Ltd., P.B. No. 11, Kallai, Calicut 673003.
Parvathi Mills Ltd., Quilon 691001.
Premier Cotton Spinning Mills Ltd., Kanjikode West, Palghat 678623.
Quilon Co-op. Spg. Mills Ltd., Dist. Co-op. Bank Bldgs., Quilon 691001.
Sitaram Textiles, Trichur 680002.
Sri Bhagvathi Textiles Ltd., Chittur 678101.
Tiruvepathi Mills Pvt. Ltd., Post Box No. 17, 90, Mill Rd., Cannanore 670013.
Trivandrum Spg. Mills Ltd., Balarampuram 695501, Trivandrum Dist.
Vanaja Textiles Ltd., Kurichikara, Trichur 680001.
Vijayamohini Mills Ltd., Thirumala, Trivandrum 695006.
Western India Cotton Mills Ltd., Pappinisseri 670561, Cannanore Dist.

Madhya Pradesh
Avanti Spg. Mill, Sanawad 451111.
Bengal Nagpur Cotton Mills, Rajnandgaon 491441.
Bharat Commerce & Ind. Ltd., Birlagram, Nagda 456335.
Bilaspur Spinning Mills & Ind. Ltd., Bilaspur 495001.
Binod Mills Co. Ltd., Ujjain 456001.
Burhanpur Tapti Mill, Lalbag, Burhanpur 450331.
Gwalior Rayon & Silk Mfg. (Wvg.) Co. Ltd., (Staple Fibre Divn.), Birlanagar, Gwalior 474004.
Hira Mills, Ujjain 456001.
Hope Textiles Ltd., Snehlataganj Main Rd., Indore 452003.
Hukamchand Mills Ltd., Post Box No. 107, Indore 452001.
Indore-Malwa United Mills, New Dewas Rd., Indore 452003.
Indore Textile Mills, Agar Rd., Ujjain 456001.
Jiyajeerao Cotton Mills Ltd., Birlanagar, Gwalior 474004.
Kalyanmal Mills, 15, Shilnath Camp, Indore 452003.
Mandsaur Textile Mills, Mandsaur 458001.
Motilal Agarwal Mills Pvt. Ltd., Ind. Area, Birlanagar, Gwalior 474004.
New Bhopal Textile Mills, Chandbarh, Bhopal 462010.
Nimar Textiles Ltd., Indore Rd., Khandwa 450001.
Phoenix Mills Ltd. (No. 2), Ujjain 456001.
Rai Bahadur Kanhaiyalal Bhandari Mills, Malgodown Road, Indore 452003.
Rajkumar Mills Ltd., 7, New Dewas Road, Indore 452003.
Shree Sajjan Mills Ltd., Ratlam 457001.
Spinning Mill, Sanawad 451111.
Standard Mills Co. Ltd., Balgarh, Dewas 455001.
Swadeshi Cotton & Flour Mills, 7, Shilnath Camp, Indore 452003.

Maharashtra
Amravati Growers Co-op. Spinning Mills Ltd., Badnera Road, New Ind. Estate, Amravati 444601.
Apollo Textile Mills, N.M. Joshi Marg, Bombay 400011.
Aurangabad Mills Ltd., Kotwalpura, Aurangabad 431001.
Barshi Textile Mills, Barsi 413401.
Bharat Textile Mills, Fergusson Road, Lower Parel, Bombay 400013.
Bombay Dyeing & Mfg. Co. Ltd., Neville House, Graham Road, B. Estate, Bombay 400038; *Spring Mills*, Naigaum Road, Bombay 400014; *Textile Mills*, Elphinstone Road, Bombay 400013; J. Bhatankar Marg, Bombay 400025; *New Bleach Works*, Elphinstone Road, Bombay 400013.
Bombay Textile Mills (Processing House), Suryodaya Mills Compound, Tardeo, Bombay 400034.
Bradbury Mills Ltd., M. Azad Road, Jacob Circle, Bombay 400011.
Century Spinning & Mfg. Co. Ltd., Pandurang Budhkar Marg, Bombay 400025.
Chalisgaon Textile Mills, Chalisgaon 424101.
Coorla Spinning & Weaving Co. Ltd., Old Agra Road, Kurla, Bombay 400070.

Crown Spinning & Mfg. Co. Ltd., Gokhale Road (South), Bombay 400028.
Dawn Mills Co. Ltd., Fergusson Road, Lower Parel, Bombay 400013.
Deccan Co-op. Spg. Mills Ltd., Jawaharnagar, Ichalkaranji 416117.
Devagiri Textile Mills Ltd., Plot No. J-5, MIDC Indl. Area, Near CIDCO Colony, New Aurangabad 431003.
Digvijay Spg. & Wvg. Co., Lalbaug, Bombay 400033.
Elphinstone Spinning & Weaving Co. Ltd., Elphinstone Road, Bombay 400013.
Empress Mills, Nagpur 440001.
Finlay Mills Ltd., 10/11, Dr. S.S. Rao Road, Bombay 400012.
Gold Mohur Mills Ltd., Dadasaheb Phalke Road, Dadar, Bombay 400014.
Hindoostan Spinning & Weaving Mills Co. Ltd., Jacob Circle, Bombay 400011.
India United Mills : *No. 1 Mill,* Ambedkar Road, Bombay 400012; *No. 2 & 3 Mills,* Bhogale Marg, Bombay 400033; *No. 4 Mill,* T.B. Kadam Marg, Bombay 400033; *No. 5 Mill,* Chinchpokhli X Lane; Bombay 400027; *Dyeworks,* Savarkar Marg, Bombay 400028.
Jam Mfg. Co. Ltd., Lalbaug, Bombay 400012.
Jam Shri Ranjitsinghji Spinning and Weaving Mills Co. Ltd., Station Road, Solapur 413001.
Jawahar Co-op. Spinning Mills Ltd., Nanded Road, Latur 413512. Osmanabad Dist.
Jawahar Sahakari Kapus Utpadak Soot Girni Maryadit, Latur 413512.
Jupiter Textile Mills, Carroll Road, Bombay 400013.
Kamala Mills Ltd., Tulsipipe Road, Bombay 400013.
Khandesh Spg. & Wvg. Mills Co. Ltd., Jalgaon 425001.
Khatau Makanji Spinning and Weaving Co. Ltd., B. Jagtap Marg, Byculla, Bombay 400027.
Kiran Spinning Mills, Kolshet Road, Thane 400601.
Kohinoor Mills Co. Ltd., Naigaum Cross Road, Dadar, Bombay 400014.
Kolhapur Sahakari Zilla Setkari Vinkar Soot Girni Ltd., Yadrav Shirol, Kolhapur 416001.
Laxmi Vishnu Cotton Mills Ltd., Solapur 413001.
Madhavnagar Cotton Mills Ltd., Madhavnagar 416404. Sangli Dist.
Mafatlal Fine Spinning & Mfg. Co. Ltd., Mount Estate, Mazgaon, Bombay 400010.
Maharashtra Co-op. Spg. Mills Ltd., Post Box 23, Bhusawal 425201.
Marathe Textile Mills, Near Rly. Stn., Miraj 416410.
Marathwada Co-op. Spinning Mills Ltd., Wajegaon Taluka, Nanded 431601.
Model Mills (Nagpur), Umrer Road, Nagpur 440018.
Modella Textile Industries Pvt. Ltd., Modellagram, Thane 400601.
Modern Mills Ltd., 29, K. Khadye Marg, Bombay 400011.
Mohota Mills Pvt. Ltd., Hinganghat 442301.
Morarjee Gokuldas Spinning & Weaving Co. Ltd., Dr. Ambedkar Road, Parel, Bombay 400012.
Mukesh Textile Mills, Victoria Bunder Road, Colaba, Bombay 400005.
Mumbai Textile Mills, S. Bapat Marg, Bombay 400013.
Nagpur Vinkar Sahkari Soot Girni Maryadit, Umrer Road, Nagpur 440018.
Nanded Textiles Mills, Mill Rd., Nanded 431601.
Narsinggirjee Mills, Station Road, Solapur 413001.
New City of Bombay Mfg. Co. Ltd., 63, T. B. Kadam Marg, Bombay 400033.
New Great Eastern Spinning & Weaving Co. Ltd., Dr. Ambedkar Road, Bombay 400027.
New Hind Textile Mills, Rambhau Bhogle Mrg., Bombay 400033.
New Pratap Spg., Wvg. & Mfg. Co., Nr. Rly. Stn., Dhule 424001.
Osmanshahi Mills, Mill Road, Nanded 431601.
Phoenix Mills Ltd., Senapati Bapat Marg, Lower Parel, Bombay 400013.
Piramal Spinning & Weaving Mills Ltd., Fergusson Road, Bombay 400013.
Podar Mills Ltd., N.M. Joshi Marg, Bombay 400011.
Prakash Cotton Mills Pvt. Ltd., Fergusson Road, Lower Parel, Bombay 400013.
Pratap Spinning, Weaving & Mfg. Co., Amalner 425401.
Pulgaon Cotton Mills Ltd., Pulgaon 442302.
R. B. Bansilal Amirchand Spinning & Weaving Mills (U.R.S.), Main Road, Hinganghat 442301.
R.S. Rechchand Gopaldas Mohota Spinning & Weaving Mills, (U.A.C.), Akola 444001.
R. S. Reckchand Mohota Spinning and Weaving Mills, Hinganghat 442301, Wardha Dist.
Raghuvanshi Mills Ltd., 11B, Jagtap Marg, Bombay 400013.
Raja Bahadur Motilal Poona Mills Ltd., 5, Raja Bahadur Motilal Road, Pune 411001.
Rajen (Textile) Mills Pvt. Ltd., Barsi 413401.
Rajesh Textile Mills Ltd., Fergusson Road, Lower Parel, Bombay 400013.
Ruby Mills Ltd., Lady Jamshedji Road, Dadar, Bombay 400028.
Savatram Ramprasad Mills, Akola 444001.
Sayaji Mills Ltd., Fergusson Road, Lower Parel, Bombay 400013.
Sholapur Sahakari Soot Girani Niyamit, Akalkot Road, Solapur 413001.
Shree Balaji Spg. & Wvg. Mills, Shivajinagar, Sangli 416416.
Shree Madhusudan Mills Ltd., Globe Mill Passage, N. M. Joshi Marg, Bombay 400013.
Shree Niwas Cotton Mills Ltd., 402, S. Bapat Marg, Bombay 400013.
Shree Ram Mills Ltd., Fergusson Road, Bombay 400013.
Shree Sitaram Mills Ltd., N. M. Joshi Marg, Bombay 400011.
Shri Shahu Chhatrapati Mills, Shahupuri, Kolhapur 416002.
Simplex Mills Co. Ltd., 30, Clerk Road, Jacob Circle, Bombay 400011.
Standard Mills Co. Ltd., New Prabhadevi Road, Lower Parel, Bombay 400025.
Swadeshi Mills Ltd., Old Agra Road, Kurla, Bombay 400070.
Swan Mills Ltd., Tokarsi Jivraj Road, Sewri, Bombay 400015.
Tata Mills Ltd., Dr. Ambedkar Road, Dadar, Bombay 400014.
Universal Textiles Pvt. Ltd., 22, Rifle Range, Shastri Marg, Bombay 400086.
Victoria Mills Ltd., Globe Mill Passage, Off N.M. Joshi Marg, Bombay 400013.
Vidarbha Mills Berar (U.R.S.), Achalpur 444805, Amravati Dist.
Vijay Mfg. Pvt. Ltd., Badnera 444701.
Western India Spinning and Mfg. Co. Ltd., Dattaram Lad Marg, Bombay 400033.

Orissa

Bhaskar Textile Mills Ltd., Jharsuguda 768201.
Orissa Textile Mills Ltd., Choudwar 754025, Cuttack Dist.
Utkal Weavers' Co-op. Spg. Mills Ltd., Khurda 752057.

Pondicherry

Anglo-French Textiles Ltd., Cuddalore Road, Pondicherry 605004.
Pondicherry Co-op. Spg. & Wvg. Mills Ltd., 62, 2nd Cross Rd., Venkatanagar, Pondicherry 605011.
Soundaraja Mills Pvt. Ltd., Nedungadu 609603, Near Karaikal.
Sri Bharathi Mills Ltd., Mudaliarpeth, Pondicherry 605004.
Swadeshi Cotton Mills, Post Box No. 19, Pondicherry 605001.

Punjab

Bharat Commerce & Ind. Ltd., Ind. Area, Rajpura 140401.
Dayalbagh Spinning & Weaving Mills, Putlighar, Amritsar 143001.
Jagatjit Cotton Textile Mills Ltd., G. T. Road, Phagwara 144401.

Kharar Textile Mills, Kharar 140301, Near Chandigarh.
Malout Co-op. Spg. Mills Ltd., Malout 141119..
Malwa Cotton Spg. Mills Ltd., Sherpur, G. T. Rd., Ludhiana 141003.
Modern Textile Mills Ltd., Verka, Amritsar 143001.
Shree Bhawani Cotton Mills, Ganganagar Road, Abohar 152116, Firozepur Dist.
Vardhman Spinning & General Mills Ltd., Chandigarh Road, Ludhiana 141003.

Rajasthan

Aditya Mills Ltd., Madanganj, Kishangarh 305802.
Banswara Textile Mills Ltd., Indl. Area, Dohad Rd., Banswara 327001.
Edward Mills, Beawar 305901.
Jagajit Cotton Textile Mills Ltd., Sri Ganganagar 335001.
Jaipur Spinning & Weaving Mills Ltd., Podar Puri, Power House Road, Jaipur 302006.
K. J. Textile Mills, Kokil Kunj, Srinagar Road, Ajmer 305001.
Krishna Mills Ltd., Beawar 305901.
Mahalakshmi Mills, Beawar 305901.
Maharaja Kishangarh Samyog Mills Co. Ltd., Madanganj, Kishangarh 305802.
Maharaja Shree Umaid Mills, Pali-Marwar 306401.
Marwar Textile Works, Ratnadashiv Road, Jodhpur 342001.
Mewar Textile Mills, Bhilwara 311001.
Rajasthan Spg. & Wvg. Mills, Bhilwara 311001.
Rajasthan Textile Mills, Bhawanimandi 326502.
Sudarshan Textiles, Rangpur Road, Kota 324002.
Udaipur Cotton Mills, Pratapnagar, Udaipur 313001.

Tamil Nadu

Alagappa Cotton Mills, Nagamalai 625019, Ramnad Dist.
Asher Textiles Ltd., Post Box 154, Gandhinagar, Tirupur 638603.
Ayyappan Textiles Ltd., 143/E, Post Box 12, Ramanathapuram 641009.
Bhavani Mills Ltd., 362, Pollachi Road, Coimbatore 641021.
Bhojraraj Textiles Mills Ltd., Theni, Madurai 625004.
Binny Ltd., Perambur Barracks, Madras 600012.
Cambodia Mills Ltd., Ondiputhur, Coimbatore 641016.
Cauvery Spinning & Weaving Mills Ltd., Cauvery Nagar 622501.
Chandra Textiles Pvt. Ltd., Peelamedu, Coimbatore 641004.
Coimbatore Cotton Mills Ltd. & Coimbatore Cotton Jubilee Mills, Uppilipalayam, Coimbatore 641015.
Coimbatore Dist. Co-op. Spinning Mills Ltd., Post Box 8, Dharapuram 638656.
Coimbatore Murugan Mills Ltd., Mettupalayam Road, Coimbatore 641002.
Coimbatore Pioneer Mills Ltd., Peelamedu, Coimbatore 641004.
Dhanalakshmi Mills Ltd., 56, B. S. Sundaram Road, Tirupur 638601.
Ganga Textiles, 2/249, Avanashi Road, Coimbatore 641018.
Gnanambikai Mills Ltd., Coimbatore 641029.
Gobald Textiles Pvt. Ltd., 144, Easwaran Koil Street, Tirupur 638601.
Gomathy Mills, Viravanallur 627426, Tirunelveli Dist.
Janardhana Mills Ltd., Uppilipalayam, Coimbatore 641015.
Jawahar Mills Ltd., Shevapet, Post Box 514, Salem 636005.
Jayaram Mills Ltd., Samsikapuram Road, Rajapalayam 626117.
Jothi Mills, Jothipuram, Coimbatore 641019.
Jyothi Prakash Spg. Mills Ltd., 45, Ramasabhapati Rd., Madras 600021.
Kadri Mills (C.B.E.) Ltd., Odderpalayam, Ondiputhur, Coimbatore 641016.
Kaleeswarar Mills, Post Box 977, 10/8, Anupparpalayam, Coimbatore 641009.
Kancheepuram Kamakshiamman Co-op. Spinning Mills Ltd., Vaiyavoor, Post Box 2, Kancheepuram 631501.
Kandasamy Spinning Mills, Suriyampalayam, Bhavani 638301, *via* Erode.
Kanyakumari District Co-op. Spinning Mills Ltd., P.O. Aramboly 629301.
Karur Mills Ltd., Karur 639005.
Kothari (Madras) Ltd., K. Vadamadurai, Coimbatore 641017.
Krishnaveni Textiles Ltd., Trichy Road, Uppilipalayam, Singanallur, Coimbatore 641005.
Kumaran Mills Ltd., Peelamedu, Coimbatore 641004.
Kwality Spinning Mills Pvt. Ltd., Udumalpet Road, Pollachi 642003.
Lakshmi Mills Co. Ltd., P. Box 1301, Pappanaickenpalayam, Coimbatore 641018.
Lotus Mills Ltd., Sundarapuram, Podanur, Coimbatore 641024.
Loyal Textile Mills Ltd., Kovilpatti 621701.
Madura Coats Ltd., Ambasamudram 627401.
Madura Coats Ltd., Madurai 625001.
Madura Coats Ltd.,, Tuticorin 628001.
Madurai Dist. Co-op. Spinning Mills Ltd., Post Box 1, Melur 625106.
Mettur Beardsell Ltd., Mettur Dam 636402.
Mettur Spinning Mills, Mettur Dam 636402.
Nagammai Mills Ltd., Kaliancaud, Nagercoil 629003.
North Arcot Dist. Co-op. Spinning Mills Ltd., Ariyur, Vellore 632002.
Palani Andavar Mills Ltd., Dhally Road, Udumalpet 642126.
Premier Mills (Cbe.) Ltd., Pulankinar, Udumalpet 642126.
Pulliccar Mills Ltd., Post Box 7, Tiruchengode 637211.
Radha Krishna Mills Ltd., Peelamedu, Coimbatore 641004.
Rajalakshmi Mills Ltd., Post Box 853, Singanallur, Coimbatore 641005.
Rajapalayam Mills Ltd., Post Box 1, Rajapalayam 622602.
Rajaratna Mills Pvt. Ltd., Neikarapatty, Palni 624601.
Ramalinga Mills Pvt. Ltd., 53, Great Cotton Road, Aruppukottai 626101.
Raveendra Mills Ltd., Post Box 859, Singanallur, Aerodrome Road, Coimbatore 641005.
Rukmini Cotton Spg. Mills Pvt. Ltd., Silaiman, Madurai 625201.
Salem Co-op. Spinning Mills Ltd., Post Box 1, Ammapet, Salem 636014.
Saroja Mills Ltd., Singanallur, Coimbatore 641005.
Sholingur Textiles Ltd., Arkonam Road, Sholingur 631102, N. Arkot Dist.
Sivananda Mills Ltd., Sravanampatti, Coimbatore 641006.
Somasundaram Mills Pvt. Ltd., Coimbatore 641009.
Soundararaja Mills Pvt. Ltd., Post Box 15, Dindigul 624006.
South Arcot Dist. Co-op. Spinning Mills Ltd., P.O. Saram 604307.
South India Co-op. Spinning Mills Ltd., P.O. Pettai, Tirunelveli 627010.
Southern Textiles Ltd., Sulur 641402, Coimbatore Dist.
Sree Ayyangar Spinning & Weaving Mills Ltd., Mallanginar 626109, Ramnad Dist.
Sree Meenakshi Mills Ltd., Tirupparankundram Road, Madurai 625001.
Sree Rajendra Mills Ltd., Gandhi Nagar, Salem 636009.
Sree Sanmugar Mills, Rajapalayam 626117.
Sree Sivakami Mills Ltd., Thenur 620017, Madurai Dist.
Sree Visalakshi Mills Ltd., Vilangudi 614715, Madurai Dist.
Sri Bharathi Cotton Mills, Post Box 6, Rajapalayam 626117.
Sri Hari Mills Pvt. Ltd., Ondipudur 641016.
Sri Kannapiran Mills Ltd., Souripalayam, Coimbatore 641004.
Sri Kartikeya Spg. & Wvg. Mills Pvt. Ltd., Uppilipalayam 641015.
Sri Karunambikai Mills Ltd., Somanur, Coimbatore 638668.
Sri Kothandaram Spinning Mills, 29, Venkatapathi Iyengar Street, Madurai 625001.
Sri Natesar Spg. & Wvg. Mills Ltd., 147/148, Perundurai Rd., Erode 638001.

Sri Ramakrishna Mills Ltd., Sathiamangalam, Coimbatore 641006.
Sri Ramalinga Choodambikai Mills Ltd., 59A/15, B.S. Sundaram Road, Tirupur 638601.
Sri Ramnarayan Mills Ltd., Perianaickenpalayam, Coimbatore 641018.
Sri Ranga Vilas Ginning, Spinning & Weaving Mills, Peelamedu, Coimbatore 641004.
Sri Rani Lakshmi Ginning, Spinning & Weaving Mills Pvt. Ltd., Arasur, Palladam 638664. (Coimbatore Dist.)
Sri Sakthi Textiles Pvt. Ltd., Post Box No. 36, Pollachi 642001.
Sri Sarada Mills, Podanur, Coimbatore 641023.
Sri Venkatesha Mills Ltd., Palni Road, P.O. Venkatesha Mills, Udumalpet 642126.
Sri Venkatesha Mills Ltd., Kathirvedu, Madras 600066.
Srivilliputhur Co-op. Spinning Mills Ltd., Post Box 13, Srivilliputtur 626125.
Sundaram Textiles Ltd., Nambinagar, P.O. Namguneri 627108, Tirunelveli Dist.
Sundarsanam Spinning Mills, Post Box 2, Rajapalayam 626112.
Surya Prabha Mills Pvt. Ltd., Kuniamuthur, Coimbatore 641008.
Swamiji Mills Ltd., Meenakshipuram, Annaikutam Post, Sattur 626203.
Tamil Nadu Co-op. Textile Spg. Mills Ltd., Erode 638005.
Thanjavur Dist. Co-op. Spinning Mills Ltd., Manalmedu 609202.
Thanjavur Textiles Ltd., Thanjavur 613005.
Thiagarajar Mills, Kappalur, Thirumangalam 626706, Madurai Dist.
Thirumagal Mills Ltd., Katpadi Road, Gudiyattam 632602.
Tiruchendur Co-op. Spinning Mills Ltd., Nazareth, Tirunelveli 628617.
Tirupur Cotton Spinning & Weaving Mills Ltd., Perumanallur Road, Tirupur 628602.
Trichinopoly Mills Ltd., Rameenagar, Tiruchirapalli 620009.
Trichy Dist. Co-op. Spinning Mills Ltd., Malaikovilur, Karur 639001.
Tuticorin Spg. Mills Ltd., 106, Palayamcottai, Tuticorin 628003.
Varadhalakshmi Mills Ltd., Rajagambeeram, Post Box 5, Manamadurai 623613.
Vasanta Mills Ltd., Trichy Road, Singanallur, Coimbatore 641005.
Vijayakumar Mills Ltd., P.O. Kalayamputhur, Palni 624615, Madurai Dist.
Vijayalakshmi Mills Ltd., Kuniyamuthur, Coimbatore 641008.
Vijayshree Spg. Mills Pvt. Ltd., Trichy Rd., Dindigul 624009.

Uttar Pradesh

Ajanta Textiles Ltd., Loni Road, Ind. Area, Ghaziabad 201001.
Amitabh Textile Mills Ltd., Prem Nagar, Dehra Dun 248001.
Ansar Spg. Mills Pvt. Ltd., 8-9 C, Indl. Estate, Khairabad 261131. Sitapur Dist.
Atherton Mills, Anwarganj, Kanpur 208003.
Bijli Cotton Mills, Mendu Road, Hathras City 204101.
Cawnpore Textiles Ltd., Cooperganj, Kanpur 208003.
Co-op. Textile Mills Ltd., Sahakarinagar, Bulandshahr 203001.
Elgin Mills Co. Ltd., Civil Lines, Kanpur 208001.
Hindon River Mills, Dasna, Ghaziabad 201001.
J. K. Manufacturers Ltd., Kamla Tower, Kanpur 208001.
Juggilal Kamlapat Cotton Spinning & Weaving Mill Co., Ltd., Kamla Tower, Kanpur 208001.
Lakshmirattan Cotton Mills, Kalpi Road, Kanpur 208012.
Lord Krishna Textile Mills, Nakur Road, Saharanpur 247001.
Modi Spinning & Weaving Mills Co. Ltd., Modinagar 201201, Ghaziabad Dist.
Moradabad Spinning & Weaving Co. Ltd., Modinagar
Moradabad Spinning & Weaving Co. Ltd., Kundanpur, Moradabad 244001.
Muir Mills, Civil Lines, Kanpur 208001.
N. K. Cotton Mills, Hathras City 204101.
New Victoria Mills, 14/1, Civil Lines, Kanpur 208001.
Prem Spg. & Wvg. Co. Ltd., Station Road, Ujhani 243639, Budaun Dist.
Raebareli Textile Mills, Rae Bareli 229001.
Raza Textiles Ltd., Jwalanagar, Rampur 244901.
Swadeshi Cotton Mills, Hamirpur Road, Juhi, Kanpur 208014.
Swadeshi Cotton Mills, Naini 211008, Allahabad Dist.
U.P. Co-op. Spinning Mills Ltd., Manipuri Road, Etawah 206001.

West Bengal

Anantapur Textile Mills, 161, Netaji Subhas Road, Calcutta 700001.
Arati Cotton Mills Ltd., Dassnagar 711105.
Bangodaya Cotton Mills Ltd., 64/65, Stephen House, B.B.D. Bag (East), Calcutta 700001.
Basanti Cotton Mills Ltd., 1 & 2, Old Court House Corner, Calcutta 700001.
Bengal Luxmi Cotton Mills Ltd., 7, Chowringhee Road, Calcutta 700013.
Bengal Textile Mills Ltd., 5, Old Court House Street, Calcutta 700001.
Bhagyalaxmi Cotton Mills Ltd., 36, J.L. Nehru Road, Calcutta 700016.
Bhaskar Textile Mills Ltd., 2, Biplabi Trailokya Maharaj Sarani, Calcutta 700001.
Bowreah Cotton Mills Co. Ltd., 21, Strand Road, Calcutta 700001.
Dunbar Mills Ltd., 21, Strand Road, Calcutta 700001.
Eastern Spinning Mills Ltd., P-46A, Radhabazar Lane, Calcutta 700001.
Hada Textile Industries Ltd., 4, Govt. Place (North), Calcutta 700001.
Hindusthan Cotton Mills Ltd., 10, Pollock St., Calcutta 700001.
India Jute Co. Ltd., (Cotton Mill Sec.), 16 Strand Road, Calcutta 700001.
India Linoleum Ltd. (Victoria Dvn.), Ghusury 711107. (Howrah Dist.).
Jatia Cotton Mills Ltd., 18, Netaji Subhas Road, Calcutta 700001.
Jaya Shree Textile & Ind. Ltd., P-46A, Radhabazar Lane, Calcutta 700001.
Kalyani Spinning Mills Ltd., 67, Bentinck St., Calcutta 700001.
Kesoram Ind. & Cotton Mills Ltd., 9/1, R. N. Mookherjee Road, Calcutta 700015.
Madura Mills Ltd., Serampore, Hooghly 712201.
Mayurakshi Cotton Mills Ltd., 19, R. N. Mookherjee Road, Calcutta 700001.
Mohini Mills Ltd., No. 2, 22, B.R.B.B. Rd., Calcutta 700001.
Poddar Projects Ltd., Hong Kong House, 31, B.B.D. Bag, Calcutta 700001.
Rampooria Cotton Mills, 8/B, Lal Bazar Street, Calcutta 700001.
Shaktigarh Textiles & Ind., 4, Govt. Place (North), Calcutta 700001.
Shri Hanuman Cotton Mills Ltd., 46, Strand Road, Calcutta 700007.
Shri Mahalaxmi Mills, Palta, 24 Parganas Dist.
Sri Annapoorna Cotton Mills Ltd., P-10, New Howrah Bridge Approach Road, Calcutta 700001.
Sri Durga Cotton Spinning & Weaving Mills Ltd., 135, B.R.B.B. Road, Calcutta 700001.
Vidyasagar Cotton Mills Ltd., 11, Collotolla St., Calcutta 700012.
West Bengal Co-op. Spg. Mills Ltd., 25, G.C. Avenue, Calcutta 700013.

THERMOMETERS (INDUSTRIAL)

Jain & Glass Instrumentation, 2, Sheila Mahal, Colaba, Bombay 400005. *Works:* C-47, N Industrial Area, Lawrence Road, New Delhi 110035.

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Ambica Metal Box Inds. Pvt. Ltd., 25/26, Gujarat Vepar Mahamandal Indl. Estate, Odhav 382410. (Ahmedabad Dist.).
Apollo Engg. Co., 12, Portuguese Church St., Calcutta 700001.
Bharat Metal Inds., 681, Haines Road, Bombay 400011.
Binjusaria Metal Box Co., C-1 & 2, Govt. Ind. Estate, Chandulal Baradai, Hyderabad 500264.
Central Tin Works, Chinchpokli X Lane, Bombay 400027.
H. A. H. Bachooalli Tin Factory, 117-119, Mohamed Ummer Kokil Marg, Dongri, Bombay 400009.
Indian Tin Box Mfg. Co., 55/I/N, Tiljala Road, Calcutta 700046.
Kiv Trading Co., 1st Parsiwada, Khetwadi, Bombay 400004.
Kotecha Investment Corpn. Pvt. Ltd., 231, Dr. D. N. Road, Bombay 400001.
Kwality Containers & Closures, 46, Kika St., Bombay 400004.
Metal Box India Ltd., Deonar, Bombay 400081.
Metal Printers Co., Bhupen Chambers, Dalal Street, Bombay 400023.
Metal Seamers & Printers Ltd., 81/3, Harish Chatterjee Street, Calcutta 700025.
Metal Stamping Co., A-35, Wagle Indl. Estate, Thane 400604.
Navrang Tin Printers, Kamal Process Studio, K.C. Ind. Estate, Subhas Rd., Jogeshwari (East), Bombay 400060.
Oriental Containers Ltd., 1076, Dr. E. Moses Road, Worli, Bombay 400018.
Poysha Ind. Co. Ltd., Tiecicon House, Dr. E. Moses Road, Bombay 400011.
R. Purushottam & Co., A-36, Laghu Udyog Kendra, I.B. Patel Rd., Bombay 400063.
Shyamnagar Tin Factory Pvt. Ltd., 62, Nagendra Nath Road, Calcutta 700028.
Standard Tin Works, Post Bag 8935, Bombay 400072.
Tin Box of Calcutta, 73, Belgachia Road, Calcutta 700037.
Zenith Tin Works Pvt. Ltd., Clerk Road, Mahalaxmi, Bombay 400034.

TINPLATE & STEEL FABRICATORS

Bihar

Hind Engg. Co., Lakhani Bigha, P.O. Khagaul 801105, Patna Dist.

Delhi

H.P. Industries, 69, Ind. Area, Najafgarh Road, New Delhi 110015.
Harichand Kashmirilal, Naya Bazar, Delhi 110006.
Mohan Industry, 953, Mali Wada, Delhi 110006.

Gujarat

New Digvijaysinhji Tin Factory, Grain Market, Jamnagar 361001.

Karnataka

India Tin Industries Pvt. Ltd., Old Madras Road, P.O. Durvaninagar, Bangalore 560016.

Madhya Pradesh

Ashoka Containers, 25/36, Ind. Estate (Pologround), Indore 452001.

Maharashtra

Azad Tin Factory, Azad House, 75/76, Reay Rd., Bombay 400010.
Shilay Inds., 8, Udyog Nagar, Goregaon West, Bombay 400062.
Standard Tin Works, Udyog Mandir, Kurla-Andheri Rd., Bombay 400072.

Uttar Pradesh

Associated Indl. Corpn., 39, Factory Area, Fazalganj, Kanpur 208001.
G. G. Industries Pvt. Ltd., 8/390, Bheron, Belanganj, Agra 282004.
Hindustan Tin Works Pvt. Ltd., Post Box No. 1, G. T. Rd., Ghaziabad 201001.
United Chemical & Metal Works Pvt. Ltd., 7/109, Lal Bungalow, Swaroop Nagar, Kanpur 208001.

West Bengal

Balgopaldas Iron & Steel Co. Pvt. Ltd., 5, Gopal Doctor Rd., Kidderpore, Calcutta 700023.
Bengal Tin Box Mfg. Co. Pvt. Ltd., 1, Jadu Mitra Lane, Calcutta 700004.
Bharat Barrel & Drum Mfg. Co. Pvt. Ltd., 2, Garstin Place, Calcutta 700001.
Bharat Tin & Enamel Co. Pvt. Ltd., 2A, Shakespeare Sarani, Calcutta 700016.
Color Printing & Hollowwares Ltd., 243, Acharya P. Chandra Rd., Calcutta 700006.
Containers & Closures Ltd., 19, N. S. Rd., Calcutta 700001.
D. G. Industries Pvt. Ltd., 15, G. C. Ave., Calcutta 700013.
Dhur Galvg. Works (1955) Pvt. Ltd., 92, Ultadanga Main Rd., Calcutta 700004.
Ganga Tin Factory, 5, Raja Rajkissen St., Calcutta 700006.
Hind Enamel Co., 12, Madhuray Bye Lane, Calcutta 700006.
Hind Galvg. & Engg. Co. Pvt. Ltd., 96, Garden Reach Rd., Calcutta 700023.
Hind Tin Industries, 107-A, Raja Dinendra St., Calcutta 700006.
Hindusthan Metal Products Syndicate, 243, Acharya P. Chandra Rd., Calcutta 700006.
Industrial Containers Ltd., P-4/1, Oil Installation Rd., Paharpur, Calcutta 700043.
Khemchand Rajkumar, 46/C, Chowringhee Rd., Calcutta 700016.
Kohinoor Mfg. Corpn. Pvt. Ltd., 5/1, Rosemary Lane, Howrah 711101.
M. L. Day & Co., 36, Chittaranjan Ave., Calcutta 700013.
Metal Products & Engg. Co., 124, M. Gandhi Rd., Calcutta 700007.
Metal & Tin Box Co. (I.) Pvt. Ltd., 233, G. L. Tagore Rd., Barnagore, Calcutta 700036.
Metal Wares & Printing Works, 3, Jagmohan Lane, Calcutta 700007.
National Alloy & Metal Works Pvt. Ltd., 17, N. C. Das Lane, Sinthee, Calcutta 700050.
Shyamnagar Tin Factory Pvt. Ltd., 62, Sri Nagendranath Rd., Satgachhi, Dum Dum, Calcutta 700028.
Sree Gopal Tin Factory Pvt. Ltd., 109B, Raja Dinendra St., Calcutta 700004.
Tinplate Co. of India Ltd., 4, Bankshall St., Calcutta 700001.

TOOLS—CARBIDE—DIAMOND

Astra Diamond Tools Pvt. Ltd., 21-B, Noble Chambers, Parsi Bazar St., Bombay 400001.
Bharat Diamond Ind., Nagin Mahal, V. Nariman Rd., Bombay 400020.
Bukhanvala Diamond Tools Pvt. Ltd., Medows House, N. Master Rd., Bombay 400023.
Dagger Frost Tools Ltd., First Pokhran Rd., Thane 400606.
Diamond Cutting & Trdg. Co. Pvt. Ltd., Daya Mandir, Mumbadevi, Bombay 400003.
Diamond Tools Industries, Karamchand Mansion, Barrack Rd., Bombay 400020.
Doongursee Diamond Tools Pvt. Ltd., 127, Mahatma Gandhi Rd., Bombay 400023.
Engg. Tooling Equipment Co., Chunilal Est., Chinchpokhli X Lane 2, Bombay 400027.
Forbes, Forbes Campbell & Co. Ltd., Forbes Bldg., Home St., Bombay 400001.
Greaves Cotton & Co. Ltd. (Diamond Products Divn.), M.I.D.C. Estate, Plot B-5, St. No. 6, Off Mahakali Caves Rd., Marol, Andheri (East), Bombay 400093.
Harish Products Pvt. Ltd., 218, GIDC, Chitra, Bhavnagar 364004.
Industrial Diamond & Tool Co., 4, Bhagavatlal Lane, Madras 600003.
Industrial Diamond Tools Co., 7-B, Sagar Vihar, Kulapati M. Munshi Mrg., Bombay 400007.
J. K. Engineering (Diamond Works), Jivraj Nivas, 408, L. B. S. Marg, Kurla, Bombay 400070.

J. N. Marshall & Co., 210, Dr. D. N. Rd., Bombay 400001.
Killick Ind. Ltd., Killick Bldg., Home St., Bombay 400001.
L. M. Van Moppes Diamond Tools India Ltd., Tiger Hill Rd., Coonoor 643101, T. Nadu.
L. & T. Drilling Equipment Ltd., L. & T. House, Narottam Morarji Mrg., Bombay 400038.
Macneill & Magor Ltd., Mackinnon Mackenzie Bldg., Ballard Estate, Bombay 400038.
New India Hardware Mart, 152, N. Dhuru St., Bombay 400003.
P. Orr & Sons Pvt. Ltd., 200, Mount Rd., Madras 600002.
Sikkim Jewels Ltd., Jewel House, Gangtok 737101 (Sikkim).
Sneva Diamond Tools Pvt. Ltd., 40, Errabalu Chetty St., Madras 600001.
Star Diamond Tools, 60, Sir P. Mehta Rd., Bombay 400001.
Super Tool Co. Pvt. Ltd., S. G. Barve Rd., Kalina, Santacruz (E), Bombay 400029.
Voltas Ltd., Graham Rd., B. Estate, Bombay 400038.

TOOLS—CUTTING, MILLING CUTTERS, PRECISION CUTTERS, REAMERS, TWIST DRILLS

Andhra Pradesh

Bindu Tools Ltd., 499, Reddy & Reddy Colony, Tirupati 517501.
Chowgule Matrix Hobs Ltd., 5-9-22/1, Hill Fort Rd., Hyderabad 500004.
Bindu Tools Pvt. Ltd., Post Box 11, Tirupati 517501.
Volkskas Mercantile, Plot No. 14, Kirloskar Colony, Begumpet, Hyderabad 500016.

Delhi

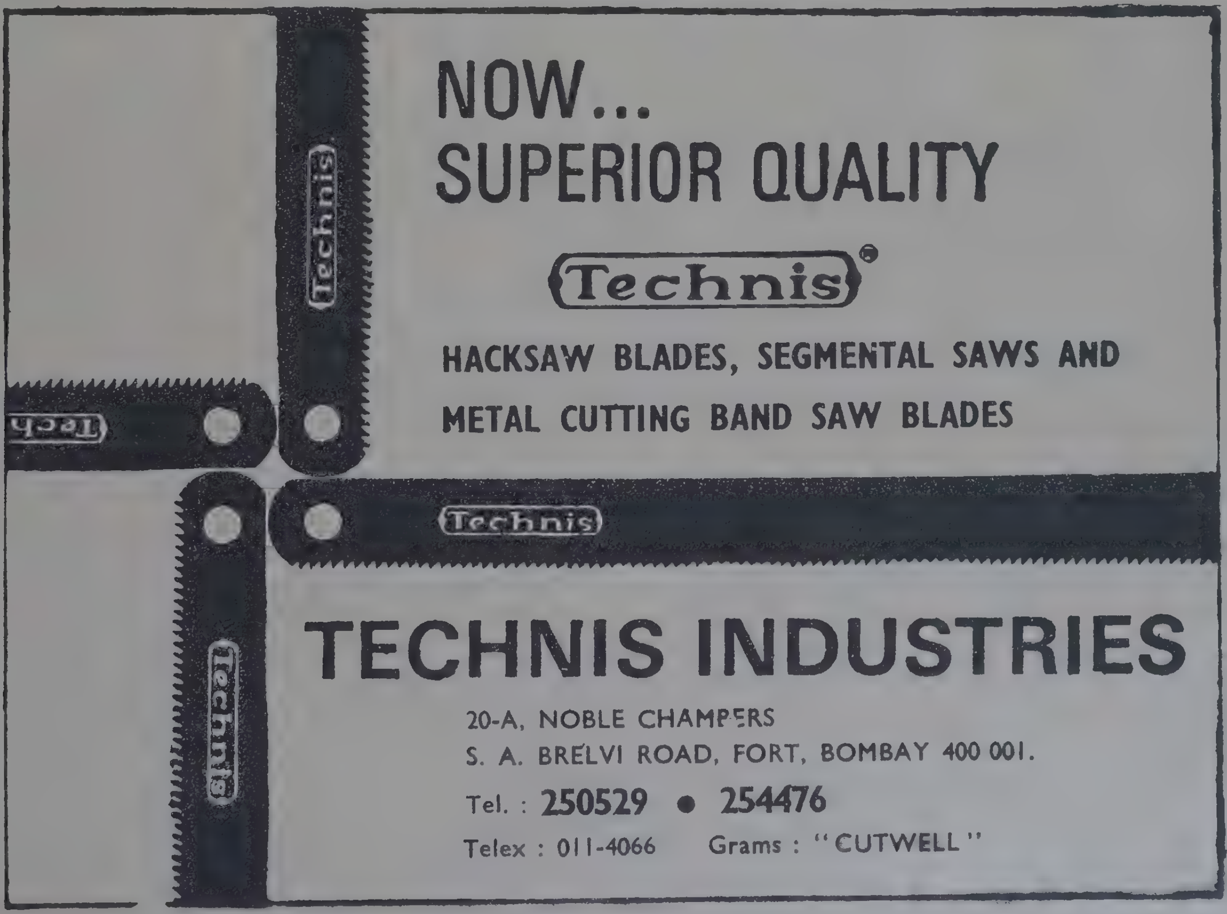
Himco Tools & Engg. Works, 673, Katra Neel, Chandni Chowk, Delhi 110006.
Indian Tool Mfrs. Ltd., 2/11, Ansari Rd., Darya Ganj, New Delhi 110002.
Laldee Pvt. Ltd., Vijaya Press Bldg., Naya Bazar, Delhi 110006.
Machine Tools (India) Pvt. Ltd., D-24, South Extn. Part II, New Delhi 110049.
Rib Tapes (India) Pvt. Ltd., 399, Old P.O. St., Delhi 110006.
Tools & Equipment Pvt. Ltd., 6-13, Ind. Area, New Delhi 110015.

Karnataka

Bharat Fritz Werner Pvt. Ltd., Peenya, Bangalore 560022.
Cimotec, 44-B, Seshadripuram, Bangalore 560020.
Hamtool Mfrs. Pvt. Ltd., 310, 14th Main Rd., Rajmahal Vilas Extn., Bangalore 560080.
Indian Minidrills Pvt. Ltd., No. 8, J. C. Rd., Bangalore 560002.
Jairamdas Udyog Pvt. Ltd., 111/118, Silver Jubilee Park Rd., Bangalore 560002.
Omicron Tool Works, IV Main Rd., 15th Cross, Malleswaram, Bangalore 560003.

Maharashtra

A. H. Bros. & Co., 26, Sarang St., Bombay 400003.
Bharat Tool Mfg. Co. Pvt. Ltd., Swastik Mill Compound, Fergusson Rd., Bombay 400013.
Consolidated Pneumatic Tools Co. (India) Ltd., 301/302, Agra Rd., Mulund, Bombay 400080.
Crystal Tools Centre, 72-80, Nagdevi X Lane, Bombay 400003.
Dagger Frost Tools Ltd., 1st Pokhran Rd., Thane 400601.
Empire Industries Ltd. (Garlick Engg. Divn.), B. Jagtap Marg, Sant Gadge Maharaj Chowk, Bombay 400011.
Ex-Cell-O India Ltd., 78-B, Dr. A. Besant Rd., Worli, Bombay 400018.
Gannon Dunkerley & Co. Ltd., Chartered Bank Bldg., Bombay 400023.
Greaves Cotton & Co. Ltd., Dr. V. B. Gandhi Marg, Bombay 400023.
Kala Industries (Bombay), 78, Nagdevi St., Bombay 400003.
Midi Tools Pvt. Ltd., 7/4, Gurudev Socy., Prabhadevi Sea Face, Bombay 400025.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New Standard Engg. Co. Ltd., Ram Mandir Rd., Goregaon, Bombay 400063.
Panchsneel Engg. Corpn., 55, Raj Baug Estate, Pydhonie, Bombay 400003.
Profile Gauges & Tools Ind. Pvt. Ltd., 6-7-8, Anupam Ind. Estate No. 2, LBS Mrg., Mulund (W), Bombay 400080.
Rapicut Tools Pvt. Ltd., T-144, MIDC Estate, Bhosari, Pune 411026.
Repetitions Parts Pvt. Ltd., Agra Rd., Bhandup, Bombay 400078.
S. S. Miranda Ltd., Ashok Rd., Kandivli East, Bombay 400067.
Sandvik Asia Ltd., Pimpri, Pune 411018.
Sunderlal & Sons, 11, N. Dhuru Cross Lane, Bombay 400003.
Super Surface Tools Co., B-117, Ghatkopar Indl. Estate, Bombay 400086.
Super Tools Pvt. Ltd., Kalina, Santa Cruz, Bombay 400029.
Tata Engg. & Locomotive Co. Ltd., Bombay House, Homi Mody St., Bombay 400023.
Technis Inds., 20-A, Noble Chambers, S. A. Brelvi St., Bombay 400001.
Voltas Ltd., 19, Graham Rd., B. Estate, Bombay 400038.
Voras Exclusive Tools Pvt. Ltd., Old Ashram, Sir M. V. Rd., Andheri East, Bombay 400093.

Punjab
Basal Tool Co., 23, Factory Area, Patiala 147001.
S. S. Tools, Indl. Estate, Sirhind Rd., Patiala 147001.

Tamil Nadu
Addison & Co. Ltd., 803, Anna Salai, Madras 600002.
Orient Tools & Gauges Ltd., 65, N. M. Mudaliar Rd., Aminjikarai, Madras 600029.
P. S. G. Indl. Instt., Peelamedu, Coimbatore 641004.
S. R. P. Tools Ltd., Lattice Bridge Rd., Madras 600041.
Synthetic Cutting Tools Mfg. Co., No. 6, MIT Gate Rd., Madras 600044.
Threadwell Gauges & Tools Co., G-14, Ind. Estate, Madras 600058.
Tool Room Services Pvt. Ltd., B-21, Ind. Estate, Madras 600058.

West Bengal
A. K. Bhattacharya & Sons Pvt. Ltd., 44/8 A, Garcha Rd., Dalhousie Sq., Calcutta 700019.
Binani Metal Works Ltd., 103/24/1, Foreshore Rd., Shibpur, Howrah 711101.
Hada Tools Ltd., 27-A, Camac St., Calcutta 700016.
Harbanslal Malhotra & Sons Ltd., 12, New CIT Rd., Calcutta 700012.
Small Tools Mfg. Co. of India Ltd., P-17, Ganesh Chandra Ave., Calcutta 700013.
Taps & Dies Ltd., P-17, Mission Row Extn., Calcutta 700013.

TOOLS—DRILLING

Indian Minidrills Pvt. Ltd., 8, J. C. Rd., Bangalore 560002.
Indian Tools Mfrs. Ltd., 101, Sion Rd., Sion, Bombay 400022.
Ingersol Rand (India) Pvt. Ltd., Maybaker House, S. K. Ahire Mrg., Worli, Bombay 400025.
Jairamdas Udyog Pvt. Ltd., 157-159, N. Dhuru St., Bombay 400003.
LMP Precision Engg. Co. Pvt. Ltd., Bilimora 396321.

TOOLS—HAND & OTHER MISC. SMALL TOOLS

Andhra Pradesh
Praga Tools Corpn. Ltd., Secunderabad 500003.
Bihar
Tata Iron & Steel Co. Ltd., Jamshedpur 831001.
Delhi
Eljay Industries, 6662, Khari Bhaoli, Delhi 110006.
Gedore Tools India Pvt. Ltd., 151, Golf Links, New Delhi 110003.
Hindustan Everest Tools Ltd., Dohil Chambers, 46, Nehru Place, New Delhi 110019.

Haryana
Dhanda Engrs. Pvt. Ltd., Ind. Area, Faridabad 121003.
Ratanchand Hanjasrai (Mouldings) Pvt. Ltd., 54, Ind. Area, Faridabad 121003.

Karnataka
Mysore Implements Factory, Hassan 573201.
Omicron Tool Works, Yeshwantpur, Bangalore 560010.

Maharashtra
Ace Tools Pvt. Ltd., B-5, Co-op. Ind. Estate, Nasik 422001.
Accurate Engineering Co. Pvt. Ltd., 67, Hadapsar Ind. Estate, Post Bag No. 1202, Pune 411013.
Asha Bros. Pvt. Ltd., 1-B, Patel Rd., Goregaon, Bombay 400063.
Bahco Taparia Tools Ltd., 20, S. Bhagat Singh Rd., Bombay 400023.
Blue Steel Engrs. Pvt. Ltd., 144, A-Z Indl. Estate, Fergusson Rd., Bombay 400013.
Chandulal Mehta & Co. Pvt. Ltd., Sakla House, M. Parmanand Marg, Bombay 400004.
Eagle Mfg. Co., C-19, Ghatkopar Ind. Estate, LBS Mrg., Bombay 400086.
Echjay Ind. Pvt. Ltd., Kanjur Village Rd., Bombay 400078.
Kandla Handtools Ltd., 302, Hari Chambers, 68/70, S. Bhagat Singh Rd., Bombay 400023.
Lal-Roe Measuring Tools Pvt. Ltd., 16/18, Daryasthan St., Bombay 400003.
Mapa Tools Pvt. Ltd., Fibre Box Compd., Gamdevi Rd., Bombay 400078.
Mohanlal Ghanshamdas, 74, Nagdevi Cross Lane, Bombay 400003.
Proto Machine Tools Mfg. Co. Pvt. Ltd., Dinesh Mills Compd., Agra Rd., Bhandup, Bombay 400078.
Rallis India Ltd., Ralli House, 21, Raveline St., Bombay 400001.
Shivaji Works Ltd., Tikekarwadi 413225. Solapur Dist.
Taparia Tools Ltd., 20, S. Bhagat Singh Rd., Bombay 400023.
Tools & Components Combine Pvt. Ltd., 10, Dhanaji St., Bombay 400003.

Punjab
Doaba Hand Tools, Tanda Rd., Jullundur 144001.
Hira Tools Corpn (Regd.), Post Box 826, Jullundur 144002.
Patiala Tools Corpn., 1-A, Ind. Estate, Patiala 147001.
Raj San Deeps Pvt. Ltd., 320, Indl. Area A, Ludhiana 141003.
Sigma Steel Inds. (Regd.), B-23, Indl. Focal Pt., Ludhiana 141010.

Tamil Nadu
All Tools Pvt. Ltd., Singanallur, Coimbatore 641005.
Orient Tools & Gauges Ltd., 65, N. M. Mudaliar Rd., Madras 600029.
S. S. Engineering Works, 301, Tiruvottiyur High Rd., Madras 600021.
Technical & Engg. Products Co., C-37, Ind. Estate, Guindy, Madras 600032.
Tepco India, C-37, Ind. Estate, Madras 600032.

Uttar Pradesh
Delhi Iron & Steel Co. Ltd., Grand Trunk Rd., Ghaziabad 201001.
Mascot (India) Tools & Forgings Pvt. Ltd., A-2, Indl. Area, Meerut Rd., Ghaziabad 201003.

West Bengal
Agarwal Hardware Works Pvt. Ltd., 33A, Shakespeare Sarani Ave., Calcutta 700071.
Alfred Herbert India Ltd., 13/3, Strand Rd., Calcutta 700001.
Barson & Co., 138, B. R. B. B. Rd., Calcutta 700001.
Bengal Tools Ltd., 251-1, Nagendranath Rd., Calcutta 700028.
Bhagchandka Inds., 57/6, Barrackpore Trunk Rd., Calcutta 700002.
Bharat Shovel Works Pvt. Ltd., 15-1, Jorabagan St., Calcutta 700006.
Dominion Hardware Stores, 40, Strand Rd., Calcutta 700001.
East Coast Enterprises Ltd., 33, Brabourne Rd., Calcutta 700001.
Harbanslal Malhotra & Sons Pvt. Ltd., 18, N. Subhas Rd., Calcutta 700001.

Jay Engg. Works Pvt. Ltd., 183, P. Anwarshah Rd., Calcutta 700001.
Metal Box Co., of India Ltd., 59-C, Chowringhee St., Calcutta 700020.
Stamping & Tools Pvt. Ltd., 8, M. G. Rd., Calcutta 700041.
Sudson Pvt. Ltd., 3, Esplanade East, Calcutta 700001.
Tools & Engg. Co. Pvt. Ltd., 2, Dalhousie Sq. East, Calcutta 700001.

TOOLS—MACHINE

Andhra Pradesh

Hindustan Machine Tools Ltd., Balanagar, Hyderabad 500037.
Indo Hacks Ltd., "Saikrupa", B-4, IDA Phase I, Pattancheruvu 502319. Medak.

Delhi

Ameteep Machine Tools Pvt. Ltd., 503, Surya Kiran Bldg., 19, K. Gandhi Marg, New Delhi 110001.
Ashok Bros. Pvt. Ltd., Post Box 305, New Delhi 110001.
Ashoka Machine Tools Corpn., A-15, Mayapuri Indl. Area, Phase I, New Delhi 110064.
Elbre Machine Tools Pvt. Ltd., 6/10, Kirti Nagar Ind. Area, New Delhi 110015.
Globe Engg. Co., 7/27, Ind. Area, Kirtinagar, New Delhi 110015.
Indudyog Co. Pvt. Ltd., 40, Okhla Ind. Estate, Okhla, New Delhi 110020.
Machine Tools (India) Ltd., D-24, South Extn. Part II, New Delhi 110049.
Motor & Machinery Mfrs. Ltd., 8, Sunder Nagar, New Delhi 110003.
Power Tools & Appliances Co., Kashmere Gate, Delhi 110006.
Prem Engg. Works, 22, Okhla Ind. Estate, New Delhi 110020.
United Machine Tools Corpn., B-44, Mayapuri Phase I, New Delhi 110027.

Gujarat

Ashok Machine Tools Mfg. Co., Rakhial, Ahmedabad 380023.
Gandhi Group Ind., F-4, Ind. Township, Naroda, Ahmedabad 382330.
Gujarat Machine Tools Ind., 1/10, Ind. Estate, Vadodara 390003.
Gujarat Wooden Machine Tools, Vaid Wadi, Rajkot 360004.
Himalaya Machinery Pvt. Ltd., 608, GIDC, Makarpura Indl. Area, Vadodara 390010.
Kant Machine Tools, 45, Digvijay Plot, Jamnagar 361001.
Laxmi Vijay Brass & Iron Works, 647, Gheekanta Rd., Ahmedabad 380001.
Yo-tana Machine Tools, C1/10, GIDC Ind. Estate, Odhav, Ahmedabad 380021.

Haryana

Beco Engg. Co. Ltd., 23/7, Delhi Mathura Rd., Ballabgarh 121004.
Precision Metal Works (India) Pvt. Ltd., Railway Rd., Gurgaon 122001.

Karnataka

Bharat Fritz Werner Pvt. Ltd., Peenya, Yeshwantpur, Bangalore 560022.
Craft Tools Pvt. Ltd., Industrial Estate, Yantrapur 577602. (Harihar).
Elmeca Works, Behind Rly Stn., Dharwar 580007.
Hindustan Machine Tools Ltd., 36, Cunningham Rd., Bangalore 560052.
Jyothi Ind., A-18, H. M. T. Ind. Estate, Bangalore 560031.
Sharnann Machine Tools, C-208, Ind. Estate, Peenya, Bangalore 560058.
Sri Venkateshwara Enterprises, B-09, H. M. T. Ind. Estate, Bangalore 560031.
Subbiah Machine Tools Ltd., B-17, Peenya Indl. Estate, Bangalore 560058.

Maharashtra

Accurate Machine Tools, 14-B, Kurla Indl. Estate, LBS Mrg., Ghatkopar, Bombay 400085.
Alex Machine Tools, 2, Sidhpura Ind. Estate, S. Vivekanand Rd., Goregaon West, Bombay 400062.
Alfred Herbert (I) Ltd., Kaiser-i-Hind Bldg., Sprott Rd., Ballard Estate, Bombay 400038.
Bharat Fritz Werner Pvt. Ltd., D-27, Commerce Centre, Tardeo, Bombay 400034.
Bharat Tool Mfg. Co. Pvt. Ltd., Fergusson Rd., Lower Parel, Bombay 400013.
Chowgule Engrs. & Machines Ltd., Bakhtawar, Nariman Point, Bombay 400021.
Cooper Engg. Ltd., Chinchwad, Pune 411019.
Empire Machine Tools, 414, S. Bapat Mrg., Lower Parel, Bombay 400013.
Fouzak Machine Tools, F-11, MIDC Area, Satpur, Nasik 422007.
Industrial Machinery & Tools Corpn., Gokhale St., Bombay 400004.
Industrial Machinery Mfrs., 14-B, Kurla Ind. Estate, Agra Rd., Ghatkopar, Bombay 400077.
Machinery Mfg. Corpn., 68, Medow St., Bombay 400023.
Macphil & Co. Pvt. Ltd., B-3, Wagle Ind. Estate, Panchpakhadi, Thane 400604.
Power Tools & Appliances Co., Mangesh Bldg., Avantikabai Gokhale St., Bombay 400004.
Proto Machine Tools Mfg. Co. Pvt. Ltd., Dinesh Mills Compd., Agra Rd., Bhandup, Bombay 400078.
Quality Machine Tools, 25, Hamam St., Bombay 400023.
R. B. M. Poona Mills Ltd., Engg. Divn., 5, R. B. M. Rd., Pune 411001.
Saibaba Machine Tools, C-5, Ghatkopar Indl. Estate, Bombay 400086.
Shridhar Machine Tools Pvt. Ltd., E-12-17(7), MIDC, Bhosari, Pune 411026.
Super Tool Co. Pvt. Ltd., Kalina, Santa Cruz, Bombay 400029.
Thakoor Machines & Tools Pvt. Ltd., "Yojana", M. Vasanji Rd., Marol Naka, Andheri East, Bombay 400059.
XLO India Ltd., 78-B, Dr. A. B. Rd., Worli, Bombay 400018.

Punjab

Auto Machine Tools (Regd.), G. T. Rd., Millerganj, Ludhiana 141003.
Pathak Machine Tools Pvt. Ltd., 'Kripa-Tulsi-Dham', Dhandari, Ludhiana 141010.
Patiala Tools Corpn., 1-A, Ind. Estate, Patiala 147001.
R. K. Machine Tools Pvt. Ltd., Industrial Area A, Ludhiana 141003.
Sharda Foundry & Engg. Works, G. T. Rd., Batala 143505.

Tamil Nadu

Alfa Machine Tools, 6, Second Line Beach, Madras 600001.
Easun Engg. Co. Ltd., 5-7, Second Line Beach, Madras 600001.
Iyappa Inds., 107-A, Sidco Indl. Estate, Madras 600098.
Machine Tools & Accessories Pvt. Ltd., 10/9, Ambattur Ind. Estate, Madras 600058.
PSG Industrial Instt., Coimbatore 641004.
Power Tools & Appliances Co., 323, Thambu Chetty St., Madras 600001.
Shiv Machine Tools, 286, Linghi Chetty St., Madras 600001.
Sri Lakshmi Engineers, 123, Cross Cut Rd., Gandhipuram, Coimbatore 641012.
Sumathi Machine Tools, Avanashi Rd., Peelamedu, Coimbatore 641004.

West Bengal

ABMTM Pvt. Ltd., 21, Camac St., Calcutta 700016.
Alfred Herbert India Ltd., 13/3, Strand Rd., Calcutta 700001.
Asia Engg. Supply Stores Pvt. Ltd., P-15, Bentinck St., Calcutta 700007.
Barson & Co., 138, Canning St., Calcutta 700001.
Boyd Smiths Pvt. Ltd., B-5, Gillanders House, N. Subhas Rd., Calcutta 700001.
Continental Plant Machinery Co. Pvt. Ltd., 16, Hare St., Calcutta 700001.

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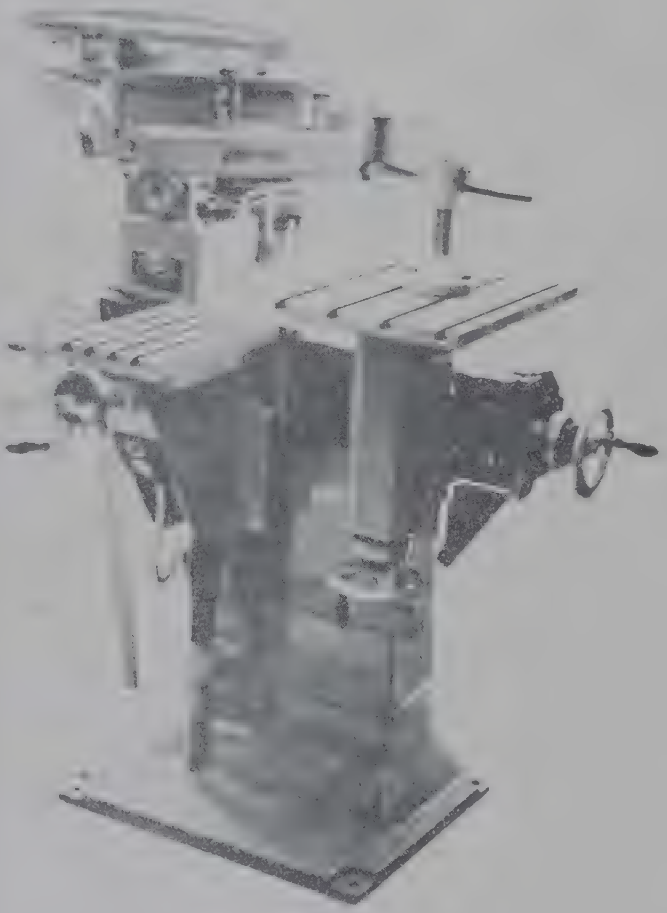

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G. R. Inds., 10, Jessore Rd., Calcutta 700028.
Hi-Hi-Go Machine Tools Pvt. Ltd., 40-A, Gariahat Rd. South, Calcutta 700031.
India Machinery Co. Ltd., Dassnagar, Howrah 711105.
Industrial Plants Ltd., "Industry House", 10, Camac St., Calcutta 700017.
Jessop & Co. Ltd., 63, N. Subhas Rd., Calcutta 700001.
Machine Tools & Appliances India Co., 12-B, N. Subhas Rd., Calcutta 700001.
Maya Engg. Works Pvt. Ltd., 200/A, S. P. Mookherjee Rd., Calcutta 700026.
National Ind. Impex Corpn., 35, Stephen House, Calcutta 700001.
Oriental Electric & Engg. Co., National Tobacco Bldg., 1, Old Court House Corner, Calcutta 700001.
Pathal Inds., 117, G. T. Rd., Howrah 711106.
Paul's Engg. Co., P-7, N. Paul Rd., Howrah 711105.
Power Tools & Appliances Co., 2, B. B. D. Bag East, Calcutta 700001.
Universal Machine Tools Mfg. Co., 542, N. Black, 1st Flr., New Alipore, Calcutta 700053.

TOOLS—AIR COMPRESSORS, PNEUMATIC EQUIPMENT AND SPARES

Andhra Pradesh
Nucon Industries Pvt. Ltd., 5-2175/1, Rashtrapati Rd., Secunderabad 500003.
Shriram Refrigeration Ind. Ltd., P.O. Balanagar Township, Hyderabad 500037.

Delhi
Didwania Bros. Pvt. Ltd., 9, Raj Niwas, Delhi 110006.
Industrial & Mining Equipment Co. Pvt. Ltd., Municipal Corpn. Bldg., Chowk, Shakti Nagar, Delhi 110007.
K. G. Khosla & Co. Pvt. Ltd., 1, D. Gupta Rd., New Delhi 110055.
Pneumatic Spares Ind., 1778, Lal Kuan, Delhi 110006.

Gujarat
Engg. Corpn. of India Ltd., Sidhpur 384151.
S. L. M. Maneklal Ind. Ltd., Vatva 382440. Ahmedabad Dist.

Maharashtra
Air Control & Chemical Engg. Co. Ltd., Khetan Bhavan, J. Tata Rd., Bombay 400020.
Atlas Copco (India) Ltd., M. Gandhi Memorial Bldg., N. Subhas Rd., Bombay 400002.
Consolidated Pneumatic Tool Co. (I) Ltd., 301/302, Agra Rd., Mulund, Bombay 400080.
Hindustan Engineers, 501-A, Commerce House, N. Master Rd., Bombay 400023.
Indo Air Ind., 49, Municipal Ind. Estate, Off E. Moses Rd., Worli, Bombay 400018.
Ingersoll-Rand (India) Pvt. Ltd., Maybaker House, S. K. Ahire Mrg., Bombay 400025.
Iron & Metal Traders Pvt. Ltd., P. B. 6210, Bombay 400010.
Kirloskar Pneumatic Co. Ltd., Hadapsar Ind. Estate, Pune 411013.
New Standard Engg. Co. Ltd., N. S. E. Estate, Goregaon (E), Bombay 400063.
Raj Tools Corpn., 50, Bibijan St., Bombay 400003.
Shubh Ind., 128, Jaygopal Ind. Estate, B. Shankar Cross Rd., Bombay 400028.
Spectro Ind. Pvt. Ltd., Shantinagar Estate, Vakola, Bombay 400055.
Taj Engg. Works, 3-3A, 1st Ghorapdeo Cross Rd., Reay Rd., Bombay 400010.

Rajasthan
Hydor India Ltd., Kota 324001.

Tamil Nadu
Elgi Equipment Pvt. Ltd., Ind. Estate, Podanur 641023.
K. N. D. Tool & Equipment Co., Mettupalayam Rd., P. O. Saibaba Mission, Coimbatore 641011.

West Bengal
Boyd Smiths Pvt. Ltd., B-5, Gillanders House, N. Subhas Rd., Calcutta 700001.
Hindustan Gas & Ind. Ltd., 22, New Tangra Rd., Calcutta 700016.
Holman-Climax Mfrs. Ltd., Titaghur 743188. 24-Parganas.
Industrial & Mining Equipment Co. Pvt. Ltd., 26, R. N. Mukherjee Rd., Calcutta 700001.
Tecalemit (Hind) Ltd., Gopalpur, P. O. Sarkarpul, 24-Parganas Dist.

TOOLS—TAPS, DIE TOOL, JIGS, FIXTURES ETC.

Andhra Pradesh
Aki International Pvt. Ltd., 70, Rani Jhansi Rd., New Delhi 110055.
Electro Mechanical Inds., 176, Nehru Nagar, 26, W. Maredpally, Secunderabad 500003.
Hyderabad Tools Pvt. Ltd., Uppal Ind. Area, Hyderabad 500039.

Delhi
Bhartia Cutler-Hammer Ltd., 1101, New Delhi House, 27, Barakhamba Rd., New Delhi 110001.

Gujarat
Accumax Ltd., Post Box No. 229, Rajkot 360001.
Gujarat Setco Clutch Ltd., Baroda Godhra Highway, Kalol 389330. Panchmahals Dist.
Premier Diecasting & Engg. Co. Ltd., Maninagar, Ahmedabad 380008.

Karnataka
Diamond Dies, Post Box 73009, Bangalore 560003.
Tiwac Inds. Ltd., Dharwar 580003.
Widia (India) Ltd., Tumkur Rd., Bangalore 560022.

Maharashtra
Afco Ltd., 253, A-Z Ind. Estate, Fergusson Rd., Bombay 400013.
Arifta Die & Tool Engrs., Plot A-20, Marol Ind. Area, Off Mahakali Caves Rd., Andheri East, Bombay 400059.
Asha Bros Pvt. Ltd., 1-B, Patel Rd., Bombay 400063.
Bahco Taparia Tools Ltd., 20, S. Bhagat Singh Rd., Bombay 400001.
Bombay Burmah Trading Corpn. Ltd. (Electronics Divn.), Plot No. 2, Kanjur Village Rd., Kanjur Mrg. (East), Bombay 400078.
Electro Slush Co. Pvt. Ltd., Janmabhoomi Bhavan, Ghoga St., Bombay 400001.
Fit Tight Nuts & Bolts Ltd., Old Ashram, M. Vasanji Rd., Bombay 400069.
Forbes, Forbes Campbell & Co. Ltd., Forbes Bldg., Home St., Bombay 400001.
Fordham Pressings India Pvt. Ltd., Kakad Chambers, 3rd Flr., Dr. A. B. Rd., Bombay 400018.
Gannon Norton Metal & Diamond Dies Ltd., Bank of Baroda Bldg., Bombay Samachar Marg, Bombay 400023.
Gleitlager Pvt. Ltd., 2nd Pokhran Rd., Thane 400606.
Guest Keen Williams Ltd., Shastri Marg, Bombay 400078.
Gujarat Industrial Trucks Ltd., Post Box 1894, Bombay 400001.
Horstman India Pvt. Ltd., Nagar Rd., Pune 411014.
Keming Tools Co. Pvt. Ltd., 165/1, Kolshet Rd., Thane 400601.
KIV Group Ind., Sun Mill Compound, Lower Parel, Bombay 400013.
Nanavati Dies & Tools Pvt. Ltd., P. B. No. 6854, Bombay 400057.
Pitty Bros. Pvt. Ltd., 20, Hamam St., Bombay 400001.
Poona Measuring Tools Co., 60, East Kirkee, Pune 411002.
Precision Taps & Dies Pvt. Ltd., 294-3, C.S.T. Rd., Kalina, Bombay 400029.
Shrenik Inds., 142-146, S. V. Rd., Jogeshwari, Bombay 400060.
Steel-Smith, 8, Sethi Ind. Estate, Suren Rd., Andheri East, Bombay 400093.
Super Automats, 27, Nand Deep, Opp. Marol Bazar, Andheri (East), Bombay 400059.
Tata Burroughs, Air India Bldg., 11th Flr., Nariman Point, Bombay 400021.

Tamil Nadu

Addison & Co. Pvt. Ltd., 158, Mount Rd., Madras 600002.
Armcess Engrs. Pvt. Ltd., A Super 8 & 9 Indl. Est., Guindy, Madras 600032.
Banu Moulds & Dies Pvt. Pvt. Ltd., 42, Moore St., Madras 600001.
J. Stead & Co. Pvt. Ltd., D-19, Ambattur Ind. Estate, Madras 600058.
Kerry Jost Tools Ltd., 8, Avadi Rd., Ambattur, Madras 600053.
NITF Tool Room, Vellore 632006.
Presmac Inds., Ambattur, Madras 600058.

Uttar Pradesh

Buckeye Machines Pvt. Ltd., Ind. Estate, Aligarh 202001.
Harig (India) Pvt. Ltd., G. T. Rd., Mahanagar, Ghaziabad 201001.
Precision Moulds and Dies, 8/4-C, Ind. Area No. 4, Sahibabad, Ghaziabad 201005

West Bengal

Burn & Co. Ltd., 12, Mission Row, Calcutta 700001.
Dies & Tools Ltd., 11, R. N. Mukherjee Rd., Calcutta 700001.
Guest Keen Williams Ltd., 3A, Shakespeare Sarani, Calcutta 700016.
Holman Climax Mfg. Ltd., Titaghur 743188.
New Dominion Engg. Works, 1/B, Pottery Rd., Calcutta 700015.
Nipha Machinery Mfrs. Pvt. Ltd., 25, N. Subhas Rd., Calcutta 700001.
Precision Products of India, 10-A, Creek Lane, Calcutta 700014.
Precision Tools India Ltd., 4, Synagogue St., Calcutta 700001.
Taps & Dies Pvt. Ltd., P-17, Mission Row Extn., Calcutta 700013.

TOOLS—TUNGSTEN CARBIDE

Addison & Co. Pvt. Ltd., 158, Mount Rd., Madras 600002.
Asian Tools Trdg. Co., 24, Nagdevi Cross Lane, Bombay 400003.
Carbide Tools India, Ayyanthole, Trichur 680003.
Champion Engg. Works Pvt. Ltd., S. Vivekananda Rd., Bombay 400062.
Dies & Tools Ltd., 35, Jessore Rd., Calcutta 700028.
Drillco Metal Carbides Ltd., 1187/59, Jangli Maharaj Rd., Shivajinagar, Pune 411005.
Ferrous Casting & Engg. Pvt. Ltd., 33, C. R. Ave., Calcutta 700012.
Gannon Norton Metal & Diamond Dies Ltd., Bank of Baroda Bldg., 12, Bombay Samachar Mrg., Bombay 400023.
Gitanjali Tubes Pvt. Ltd., Madras 600081.
India Hard Metals Ltd., 49/1, Gariahat Rd., Calcutta 700019.
Indian Tools Mfrs. Ltd., 101, Sion, Bombay 400022.
Indicarb Ltd., 1101, New Delhi House, 27, Barakhamba Rd., New Delhi 110001.
Micro Tools Ltd., 153, A. Salai, Madras 600002.
P. Orr & Sons Pvt. Ltd., 200, Mount Rd., Madras 600002.
Powder Metals & Alloys Pvt. Ltd., Plot A-30, Rd. No. 10, Wagle Estate, Thane 400604.
Precitools, Krishna Nivas, 305, Yusuf Meheralli Rd., Bombay 400003.
Rapicut Carbides Ltd., Plot No. 7-B, Shivaji Co-op. Housing Society Ltd., Pune 411016.
Sandvik Asia Ltd., Pimpri, Pune 411018.
Shama Forge Co. Ltd., Belasia Rd.; Bhopal 462001.
Usha Forging & Stamping Ltd., 3, Parliament St., New Delhi 110001.
Widia (India) Ltd., Kakad Chambers Extn., 132, Dr. A. B. Rd., Bombay 400018.

TOWER PACKINGS

Bassein Ceramics Pvt. Ltd., Cooks Bldg., 324, Dr. D. Naoroji Rd., Bombay 400001.
Kevin Enterprise, Plot 11, St. No. 10, MIDC, Bombay 400093.
Luthra Import Substitute Industries, A-26, Shalimar Ind. Estate, Matunga, Bombay 400019.
Nilgiri Chemical Stoneware Co., Indl. Estate, Coimbatore 641021.
Pennar Ceramic & Gen. Inds., Panipat 132103.
Topack Inds., 7, 1st Panjrapole Lane, 1st Flr.. Bombay 400004.
West Coast Engg. Works Pvt. Ltd., 301, Udyog Mandir No. II, 7-C, Pitamber Lane, Mahim, Bombay 400016.

TOYS

Anand Toys Inds., 10795, Jhandewalan Rd., New Delhi 110055.
Electronic Toys (India), 37, B. T. Compd., Malad West, Bombay 400064.
Etak Corpn. Ltd., 101, Lady Jamshedji Rd., Mahim, Bombay 400016.
Govel Plastics Pvt. Ltd., 5/G, Veerabadrier St., Nungambakkam, Madras 600034.
Joy Toy Inds. Pvt. Ltd., 3B, Eldams Rd., Madras 600018.
Lakshmi Toys Inds., 2388, Farashkhanna, Delhi 110006.
Metal Stamping Co., Plot No. A35, Road No. 10, Wagle Ind. Estate, Thane 400604.
Mona Toy Inds., New Delhi 110064.
Plastifoams Pvt. Ltd., 4, Meher Bldg., Chowpatty, Bombay 400007.
Raja Mechanical Co. Pvt. Ltd., 33, Deputy Gunj, Delhi 110006.
Rubina Toys Inds., 1014, Kishanganj, Delhi 110006.
Tina Toys Inds., 807/8, Gali Mahaveer, Gandhinagar, Delhi 110031.
United Importers Corpn., 15/2, Palton Rd., Bombay 400001.
Vantai Agencies, 5, Dattani Shopping Centre, Vasanji Lalji Rd., Kandivli West, Bombay 400067.
Vinmold Pvt. Ltd., 11/A, T. K. Ind. Estate, A. Donde Marg (Cross Lane), Sewree, Bombay 400015.
Vohra Toys Inds., 10250, Gali Millwali, Library Rd., Azad Mkt., Delhi 110006.

TRACTORS & SPARE PARTS

Andhra Pradesh

Eicher Goodearth Ltd., 10-2-287/1/3, Shantinagar, Hyderabad 500028.

Delhi

Agarwal Engg. Co., 11-A-36, Lajpatnagar, Link Rd., New Delhi 110024.
Eicher Goodearth Ltd., 79-80, Nehru Place, New Delhi 110019.
Escorts Ltd., 11, Scindia House, Connaught Circus, New Delhi 110001.
Harsha Tractors Ltd., 42, Janpath, New Delhi 110002.
Pronto Steerings Pvt. Ltd., 123, Ansal Bhawan, K. Gandhi Mrg., New Delhi 110001.
Siyaram-Kumar Engg. Works Pvt. Ltd., 41, DLF Indl. Area, Kirtinagar, New Delhi 110016.
United Auto Tractors Ltd., 30, Rani Jhansi Rd., New Delhi 110055.
Verma Trdg. Co., S. P. Mukherji Marg, Delhi 110006.

Gujarat

Hindustan Tractors Ltd., Vishwamitri, Vadodara 390001.
Rexroth Maneklal Industries, Shafi Manzil, Ashram Rd., Ahmedabad 380009.

Haryana

Eicher Goodearth Ltd., Faridabad 121001.
Escorts Ltd., Sector-13, Faridabad 121002.

Karnataka

Bharat Agro Inds., Yantranagar, Gokul Rd., Hubli 580030.
Bharat Earth Movers Ltd., Unity Bldgs., Jayachamarajendra Rd., Bangalore 560002.
Hindustan Machine Tools Ltd., Bangalore 560052.
Tillers Tractors Ltd., Bangalore 560048.
V. S. T. Tiller Tractors Ltd., M. Gandhi Rd., Bangalore 560001.

Maharashtra

Business Combine Ltd., 78-B, Dr. A. B. Rd., Worli, Bombay 400018.
International Tractor Co. of India Ltd., Akurli Village, Kandivli, Bombay 400067.
Kirloskar Tractors Ltd., Thermal Power Stn. Rd., Nasik 422101.
Naren Kumar Machinery Co., 9, Oak Lane, Bombay 400023.

Pioneer Industrial & Engineering Co., Sardar Griha Bldg., 198, Carnac Rd., Bombay 400002.
Pittie Tools Pvt. Ltd., 37/1B, Vadgaonsheri, Off Nagar Rd., Pune 411014.
Tata Engg. & Loco. Co. Ltd., Bombay House, Homi Mody St., Bombay 400023.
Tractor Engrs. Ltd., Saki-Vihar Rd., Powai, Bombay 400072.
Vasudha Farm Tools Pvt. Ltd., C-26, MIDC Ind. Area, Chikalthana 431210 (Aurangabad Dist.).

Punjab
G. N. A. Enterprises Pvt. Ltd., G. T. Rd., Goraya 144409.
HMT Ltd., Agricultural Machinery Group, 34, Madhya Mrg., Sector 7-C, Chandigarh 160019.
Punjab Tractors Ltd., S.A.S. Nagar, Chandigarh 160051.
Sooraj Tractors Pvt. Ltd., Pratap Bazar, Chheharta, Amritsar 143105.

Tamil Nadu
Kirloskar Tractors Ltd., 7/3, Pattulos Rd., Madras 600002.
Madras Tractors & Motors, 96, Mount Rd., Nandanam, Madras 600035.
Mashino India, 211, Dr. Natesan Rd., Madras 600005.
Trac Ind. & Components Ltd., 12, Cenotaph Rd., Madras 600018.
Tractors & Farm Equipment Ltd., Huzur Gardens, Sembiam, Madras 600011.
Tractors India Ltd., Jhaver Plaza, 7th Flr., 1-A, Nungambakkam High Rd., Madras 600034.

Uttar Pradesh
Auto Tractors Ltd., Lucknow-Varanasi Highway, Pratapgarh 230001.
Tractparts of India Ltd., 4, Indl. Area, Govindnagar, Kanpur 208022.

West Bengal
Emar (India) Pvt. Ltd., 135, B. R. B. B. Rd., Calcutta 700001.
Tractors India Ltd., 1, Taratolla Rd., Calcutta 700024.

TRAILERS & TROLLIES

(See under Material Handling Equipment).

TRANSFORMERS

Andhra Pradesh
Andhra Mechanical & Elecl. Industries Ltd., 173, Fateh Maidan, North Rd., Secunderabad 500003.
Andhra Pradesh Electl. Equipment Corpn., Sanatnagar, Hyderabad 500018.
Electric Transformer & Equipment Co. Pvt. Ltd., B-29/30, Indl. Estate, Sanatnagar, Hyderabad 500018.
Electro Magnetic Devices, 82, Main Guards Rd., Secunderabad 500003.
Electronic Instrumentation, Craftsmen Guild, Mallepally, Hyderabad 500028.
Epsilon Electronic Equipments & Components Pvt. Ltd., B-2, Electronic Indl. Estate, Kushaiguba, Hyderabad 500762.
South Eastern Equipment Co., 6-1-285/12, Padmaraonagar, Secunderabad 500025.
Suchitra Electronics, 1100/5, Raj Bhavan Rd., Somajiguda, Hyderabad 500004.
Vijai Electricals Pvt. Ltd., Plot No. 28, Indl. Development Area, Balanagar, Hyderabad 500037.

Bihar
Electric Equipment Factory, Tatisilwai, Ranchi 834001.

Delhi
Bharat Heavy Electricals Ltd., H. T. House, 18-20, K. Gandhi Marg, New Delhi 110001.
Kukreja Transformer Mfg. Co., A-9, Wazirpur Indl. Area, Delhi 110052.
United Electrical Ind., 14, Najafgarh Rd., New Delhi 110015.

Gujarat
Amul Transmission Line Hardware Pvt. Ltd., Parikh Estate, Dabhoi Rd., Vadodara 390004.
Continental Electronics, 177/4, Naroda Indl. Estate, Naroda, Ahmedabad 382330.
Gujarat Transformers Pvt. Ltd., 46, Sampatrao Colony, R. C. Dutt Rd., Vadodara 390005.
Johnson Electric Co., Fatehganj, Chhani Rd., Vadodara 390002.
Patson Transformers Pvt. Ltd., Indl. Estate, Bholav, Bharuch 392002.
Transasia Transformers Pvt. Ltd., 86, Ind. Estate, Naroda, Ahmedabad 382330.
Transformer Mfg. Industries, Kapeli Dhar, Dhrangadhra 363310.
Voltamp Transformers Pvt. Ltd., Post Box 186, Vadodara 390001.

Karnataka
Electric Power Devices Co., Canara Mutual Bldg., 4, Residency Rd., Bangalore 560025.
Government Electric Factory, Mysore Rd., Bangalore 560026.
Kirloskar Electric Co. Ltd., Ind. Suburb, Rajajinagar, Bangalore 560010
NGEF Ltd., Byappanahalli, Off Old Madras Rd., Bangalore 560038.
Swicon Pvt. Ltd., 87/16, 4th Cross K. Palayam New Extn., Bangalore 560002.

Kerala
Kerala Electric & Allied Engg. Co. Ltd., Mamala, Cochin 682305.
Transformers & Electricals India Ltd., Angamali South 683573 (Ernakulam Dist.).

Maharashtra
Advani-Oerlikon Electrodes Pvt. Ltd., Radia House, 6, Rampart Row, Bombay 400023.
Ambarnath Transformers, Plot 60/1, J. B. Nagar, Bombay 400059.
Apex Electricals Pvt. Ltd., Drive in Theatre Campus, 14, Kala Nagar, Bandra East, Bombay 400051.
Applied Electronics Ltd., Aplab House, A-5, Wagle Indl. Estate, Thane 400604.
Argo Transformers Co. Pvt. Ltd., 187, Dr. D. Bhadkamkar Rd., Bombay 400007.
Argus Inds. Pvt. Ltd., Plot A-264, Rd. 16, Wagle Indl. Estate, Thane 400604.
Bagade Electl. Inds., D-352, TTC Indl. Area, Turbhe Naka, Thane Belapur Rd., New Bombay 400613.
Bajaj Electricals Ltd., 45-47, V. Nariman Rd., Bombay 400023.
Bharat Bijlee Ltd., Electric Mansion, Nr. Century Bazar, Bombay 400025.
Bombay Electronics Co. Pvt. Ltd., 381, Dr. D. N. Road, Bombay 400001.
Bombay Suburban Electric Supply Ltd., Plot No. E-7, M.I.D.C. Area, Marol, Andheri East, Bombay 400093.
C. T. R. Mfg. Ind. Ltd., Nagar Rd., Pune 411014.
Chhabi Electricals Pvt. Ltd., 20, Anupam Indl. Estate No. 3, Opp. Ralliwolf, LBS Mrg., Mulund West, Bombay 400080.
Crompton Greaves Ltd., Kanjur, Bombay 400078.
Emco Electricals Pvt. Ltd., 106, North Kolwada Stn. Rd., Bombay 400022.
Hindustan Brown Boveri Ltd., Brown Boveri House, 264-265, Dr A. Besant Rd., Bombay 400025.
Hindustan Instruments, 7/9, Bell Lane, Bombay 400001.
Indcoils Transformers Pvt. Ltd., 21, Steelmade Estate, M. Maroshi Rd., Andheri, Bombay 400059.
Kanchan Electric Co., D-351, T.T.C. Indl. Area, Turbhe Naka, Thane Bellapur Rd., New Bombay 400613.
Kirti Electricals Pvt. Ltd., Shembekar Ind. Comp., Chinchwad, Pune 411019.
Mehul Enterprises, Vikas Corpn. Compd., Unit No. P9, Vadoli, Chembur, Bombay 400074.
Metrogold Electric Stores, 60, Lohar Chawl, Bombay 400002.

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Phones :
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365096.

MADRAS
845012.

CALCUTTA
279847.

NEW DELHI, 638142.

Murray & Co., 106 Industrial Area, Sion, Bombay 400022.
National Electrical Ind. Ltd., Ind. Estate, Lalbaug, Bombay 400012.
Nissen Transformers Pvt. Ltd., 12A, Marol Rd., Andheri East, Bombay 400059.
Pace Electronics Pvt. Ltd., 237, A-Z, Indl. Estate, Fergusson Rd., Lower Parel, Bombay 400013.
Power & Control Transformer Ind. Pvt. Ltd., Feltham House, Graham Rd., B. Estate, Bombay 400038.
Power-Pack Enterprises, Old Nagardas Rd., Andheri (East), Bombay 400069.
Prayog Electricals Pvt. Ltd., Vidyavihar Stn. Rd., Bombay 400086.
Shalaka Instruments, 38/39, Hadapsar Indl. Estate, Pune 411013.
Star Delta Electricals, Bharat Coal Compd., Bail Bazar, Kurla, Bombay 400070.
Sukson Ind., 16/3, Jawaharnagar, Road No. 2, Goregaon (West), Bombay 400062.
Swastik Electric & Engg. Co., 7/73, Bhaudaji Rd., Bombay 400019.
Tata Merlin & Gerin Ltd., Off 2nd Pokhran Rd., Thane 400601.
Technosynd Engrs., A-192. Rd. A, Wagle Estate, Thane 400604.
Trans Electric, 15/11, Jai Pushpa Milan Socy., Sant Ramdas Rd., Mulund East, Bombay 400081.

Punjab

Beegee Corpn., Pvt. Ltd., 25, Factory Area, Patiala 147002.

Tamil Nadu

Elahi Electronics, 5, Madduvankarai St., Madras 600016.
Hackbridge Hewittic & Easun Ltd., 5-7, Second Line Beach, Madras 600001.
Kappa Electricals Pvt. Ltd., 213, Royapettah High Rd., Madras 600014.
Meenakshi Electronics, 1, Ritchie St., Madras 600002.
Radio & Electricals Ltd., Basin Rd., Thiruvottiyur, Madras 600019.
Seqonds & Powls Pvt. Ltd., 200, Thambu Chetty St., Madras 600001.
Transformers and Switchgears Ltd., 2, Lattice Bridge Rd., Madras 600020.
Venkateswara Electrical Inds. Pvt. Ltd., Porur, Madras 602104.

Uttar Pradesh

Darbari Inds., 24, Canning Rd., Allahabad 211001.
Electra (India) Ltd., Indl. Area, Partapur 250103. Meerut Dist.

West Bengal

Acme Electro Inds. Pvt. Ltd., 348/216, N.S.C. Bose Rd., Calcutta 700047.
Andrew Yule & Co. Ltd., 8, Clive Row, Calcutta 700001.
Biecco Lawrie Ltd., 21, N. Subhas Rd., Calcutta 700001.
Brentford Electric (I) Pvt. Ltd., 8, Clive Row, Calcutta 700001.
Cieco Pvt. Ltd., 2/1, B. T. Rd., Calcutta 700050.
Dey's Electl. Engg. Works, 11/B, Rahim Ostagar Rd., Calcutta 700045.
East India Electricals, 38, N. Subhas Rd., Calcutta 700001.
Electric Construction and Equipment Co. Ltd., 9, K. Singhee Rd., Calcutta 700002.
Elvoc Pvt. Ltd., 36, Panditia Rd., Calcutta 700029.
General Electric Co. of India Ltd., Magnet House, 6, Chittaranjan Ave., Calcutta 700013.
Hengers India Pvt. Ltd., Narayani, 59-B, Chowringhee Rd., Calcutta 700020.
Hooghly Marine & Engg. Co., 27/2C, Strand Rd., Calcutta 700001.
India Radio Mfg. Co., 18, Chandni Chowk St., Calcutta 700013.
Indian Oxygen Ltd., P34, Taratala Rd., Calcutta 700088.
Kanubhai Engrs. Pvt. Ltd., 3, Mangoe Lane, Calcutta 700001.
Marson's, 4, Chandni Chowk St., Calcutta 700013.
Punam Machines & Tools, 10, G. C. Ave., Calcutta 700013.

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Tarit Appliances & Equipments Pvt. Ltd., IOB, Ekdalia Place, Calcutta 700019.
Transformers & Electricals (India), 83, Chowringhee Rd., Calcutta 700020.
Voltamp Electricals Pvt. Ltd., P-15, New C. I. T. Rd., Calcutta 700073.

TRAVELLING REQUISITES

Ambassador Luggage Inds. Pvt. Ltd., 4, Ichalabad, Burdwan 713103. (W. Bengal).
Blow Plast Ltd., VIP House, 88-C, Old Prabhadevi Rd., Bombay 400025.
Encore Marketing, 283A, Abdul Rehman St., Bombay 400003.
Kishco Silver Pvt. Ltd., Post Box 1063, Bombay 400001.
Safari Industries (India) Pvt. Ltd., 107/0, Khetani Textile Compd., Bazarwad, Kurla, Bombay 400070.
Tip Top Bonanza, 150, Mount Rd., Madras 600002.
Universal Luggage Mfg. Co. Pvt. Ltd., Saki Vihar Rd., Bombay 400072.

TUBES, PIPES & FITTINGS

(Also see Steel Tubes & Pipes & Fittings).

Andhra Pradesh

Nagarjuna Coated Tubes Ltd., Nagarjuna Hill, Panjagutta, Hyderabad 500004.
Triniti Metal Ind., A-5, Co-op. Ind. Estate Ltd., Balanagar, Hyderabad 500037.
Ushasri Ind., C-12, Co-op. Ind. Estate, Balanagar, Hyderabad 500037.

Assam

Assam Tubes Ltd., Sibsagar 785640.

Bihar

Hathwa Metals & Tubes Ltd., Hathwa House, Patna 800001.
Indian Tube Co. Ltd., P. B. No. 481, Jamshedpur 831001..
Stewarts & Lloyds of India Ltd., Jamshedpur 831007.

Delhi

Ajanta Tubes Ltd., D-20, Conn. Place, New Delhi 110001.
Boiler Components Mfg. Co., 3420, Shanti Mkt., Hauz Qazi, Delhi 110006.
Century Tubes Ltd., 4-D, Hansalaya, 15, Barakhamba Rd., New Delhi 110001.
Delhi Tubes Pvt. Ltd., 23, South Extn., New Delhi 110003.
G.F.R. & Co. Pvt. Ltd., 8200/XIV Chimy Mill St., Bara Hindu Rao, Delhi 110006.
Jain Tube Co. Ltd., Jain Bhavan, Hauz Qazi, Delhi 110006.
Jindal Ind. Pvt. Ltd., 15/1, A. Ali Rd., New Delhi 110002.
Karori Engg. Works, 16, Najafgarh Rd., New Delhi 110015.
Pearl Engg. Works, 1669-B, Dakni Rai St., Daryaganj, New Delhi 110002.
Prakash Tubes Ltd., Padma Tower, Rajendra Place, New Delhi 110008.
Super Tubes Pvt. Ltd., D-18, Conn. Place, New Delhi 110001.
United Steel Ind., X-242, Near Delhi Gate, Delhi 110006.
Wazir Singh & Co., 10/5, Jhilmil Indl. Area, Shahdara, Delhi 110032.

Gujarat

Baroda Rolling Mills Pvt. Ltd., Chhani Rd., Vadodara 390002.
Dandy Valve Mfg. Co., 12, GIDC Ind. Estate, Phase 1, Vatva, Ahmedabad 382445.
Enterton Systems, D-6, Ind. Estate, Vadodara 390003.
Foldage Ind. Pvt. Ltd., Dhebarbhai Rd., Rajkot 360001.
Zaverchand Gaekwad Pvt. Ltd., Padra Rd., Vadodara 390001.

Haryana

Metal Tubes Pvt. Ltd., G. T. Road, Panipat 132103.
Prakash Tubes Ltd., Prakash Nagar, Bahadurgarh 124507.

Madhya Pradesh

Steel Tubes of India Pvt. Ltd., 27-34, Ind. Estate, Indore 452001.

Maharashtra

Accurate Tubes, 13/14, Shrinath Indl. Estate, M. Caves Rd., Andheri, Bombay 400093.
Ajanta Tubes Ltd., Arcadia, 7th Flr., N. Point, Bombay 400021.
Ashoka Pipe Mfg. Co., 134, D. Parikh Marg, Kalbadevi, Bombay 400002.
Bombay Tubes & Poles Co., 2nd Lane, Darukhana, Mazgaon, Bombay 400010.
Dodsal Pvt. Ltd., Mafatlal House, Backbay Recl., Bombay 400020.
Gupta Tubes & Pipes Pvt. Ltd., 37, Baroda St., Bombay 400009.
Heavy Metal & Tubes, 629, Panchratna, M. Parmanand Mrg., Bombay 400004.
Hindustan Tubes, Plot No. 345, Section 4-B, Copper Smith St., Dockyard Rd., Bombay 400010.
Impex Tube Mfg. Co. Pvt. Ltd., Gharwadi, L. Jamshedji Cross Rd., No. 1, Bombay 400016.
India Tube Mills & Metal Industries Ltd., Shastri Marg, Opp. Powai Lake Rd., Bombay 400083.
Jayant Dalal Ltd., A-4/B-2, MIDC Ind. Area, Marol, Bombay 400093.
Kamani Tubes Ltd., Kamani Chambers, 32, Ramjibhai Kamani Marg, Ballard Estate, Bombay 400038.
Lu Bra Diz, 2-B, Bibijan St., Bombay 400003.
M. J. Patel & Co. Pvt. Ltd., 116, P. D'Mello Rd., Bombay 400009.
Maheshwari Enterprises, 142, A-Z, Industrial Estate, Fergusson Rd., Bombay 400013.
Metal Distributors Ltd., Udyog Bhavan, W. Hirachand Mrg., B. Estate, Bombay 400038.
Metal Extruders (India) Pvt. Ltd., Kamani Chambers, Nicol Rd., B. Estate, Bombay 400038.
Pressure Tube Inds., BPT Plot 345, Copper Smith St., Dockyard Rd., Bombay 400010.

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Rasiklal Kantilal & Co., 145, Kika St., Bombay 400004
Standard Engg. Works, Hadis Subedar Ind. Estate, Kuresh Nagar, Kurla East, Bombay 400070.
Sumeep Enterprises, 192/206, A. Rehman St., Bombay 400003.
Surindra Engg. Co. Pvt. Ltd., Safed Pool, M. V. Rd., Bombay 400072.
Teekay Tubes P. Ltd., 315/17, Navrattan, P. D'Mello Rd., Bombay 400009.
Tubes India, 78/80, Kika St., Bombay 400004.

Orissa

Kalinga Tubes Ltd., Rasulgarh, Bhubaneshwar 751010.

Rajasthan

Ahuja Industries, B-85, Ind. Estate, Bais Godown, Jaipur 302006.
Indo-Flex Pvt. Ltd., Jaipur 302001.

Tamil Nadu

Apollo Tubes Ltd., 730, Anna Salai, Madras 600006.
K.C.P. Ltd., Mount Rd., Madras 600006.
Khandelwal Tubes, 23, Mooker Nallamuthu St., Madras 600001.
Kwality Industries, B/4, Industrial Estate, Ambattur, Madras 600058.
Madras Tube Co. Ltd., 7, Boat Club Rd., Madras 600028.
Sreevatsa Tube Corpn., 29/2, Sembudoss St., Madras 600001.
Tube Investment of India Ltd., N. Beach Rd., Madras 600001.
Tubes & Malleables Ltd., 99, Armenian St., Madras 600001.
Tubes Products of India Ltd., Avadi, Madras 600054.

Uttar Pradesh

Ajanta Tubes Ltd., Jain Ind. Estate, 38 Km., Delhi Hapur Rd., Ghaziabad 201001.
Plica India Pvt. Ltd., 149, Model Town, Ghaziabad 201009.
Quality Steel Tubes Pvt. Ltd., 133/1, Juhi Gaushala,, Kanpur 208004.
Reliable Water Supply Services of India Ltd., 17, Gokhale Marg, Lucknow 226001.

West Bengal

Appejay Tubes Pvt. Ltd., 47, Hide Rd., Calcutta 700027.
Bharat Steel & Metal Ind., 14/2, Old China Bazar St., Calcutta 700001.
Castings Corpn. (India) Pvt. Ltd., 45, M. P. Chowdhury Lane, Howrah 711101.
Crawley & Ray (Founders & Engrs.) Pvt. Ltd., 32, Foreshore Rd., P.O. Botanic Gardens, Howrah 711103.
Hind Overseas (Pvt.) Ltd., 7, N. P. Babu Lane, Calcutta 700016.
Indian Tube-Co. Ltd., 43, Chowringhee Rd., Calcutta 700016.
Jindal India Pvt. Ltd., Liluab 711204, Howrah Dist.
Kalinga Tubes, 44, J. L. Nehru Road, Calcutta 700071.
Kamala Sheet Metal Ind. Pvt. Ltd., 98 & 99, Beliaghata Main Road, Calcutta 700010.
Kedarnath Parsothamdas & Co. Pvt. Ltd., 37, N. Subhas Road, Calcutta 700001.
Kesoram Spun Pipes & Foundries, Industry House, 10, Çamac Street, Calcutta 700017.
Khandelwal Tubes, 5/2, Russel St., Calcutta 700071.
Laxmi Trdg. Co., 192, J. Bajaj St., Calcutta 700007.
M. Chandra & Co., 22, Rabindra Sarani, Calcutta 700001.
Miller & Co. (Calcutta) Pvt. Ltd., 24, N. Subhas Road, Calcutta 700001.
Orr Dignam & Co., Ltd., 29, N. Subhas Road, Calcutta 700001.
Patcon Pvt. Ltd., 7A, Elgin Road, Calcutta 700020.
Planter's Stores & Engg. Co., Mercantile Bldg., 9, Lalbazar Street, Calcutta 700001.
Rajasthan Pipes Pvt. Ltd., Bochhraj Road, Nimta, Calcutta 700049.
Satish Chandra Karuri & Sons, 10/6, B. Mullick Lane, Howrah 711101.
Shree Hanuman Steel Works, 30-H/1, Canal East Road, Calcutta 700011.
Shree Inds., 2, G. C. Avenue Calcutta 700013.
Stewarts & Lloyds of India Ltd., 41, Chowringhee Road, Calcutta 700016.
Tube-Bend (Calcutta) Pvt. Ltd., 15, Elgin Rd., Calcutta 700020.

TUBEWELL MACHINERY & ACCESSORIES

Allied Tubewell Development Corpn., P-296, Darga Road, Calcutta 700017.
Associated Tubewells India Pvt. Ltd., 9/1, Darga Road, Calcutta 700017.
Calcutta Filter Mfg. Co., 62/1A. N. Subhas Road, Calcutta 700001.
Delhi Engg. Works Pvt. Ltd., 454, Azadpur, Delhi 110033.
EL.P.EM. Industrials, 393, Mettupalayam Rd., Coimbatore 641002 (T. Nadu).
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Ganapathi Engg. Mfg. Ganapathi, Coimbatore 641006.
Hyderabad Alloy Foundries Pvt. Ltd., 7-a-79, Ameerpet, Hyderabad 500016.
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Indian Drilling & Mining Co. Pvt. Ltd., 67B, N. S. Road, Calcutta 700001.
International Strainer Co. Pvt. Ltd., 161/1, M. G. Road, Calcutta 700007.
Kadakia Trdg. Corpn., 3, Bibijan St., Bombay 400003.
Larsen & Toubro Ltd., L & T House, Ballard Estate, Bombay 400038.
Life Tubewells Pvt. Ltd., 166, C.S.T. Road, Vidyanagari Marg, Bombay 400098.
Pioneer Tubewell Inds. Pvt. Ltd., 7, R. S. Mullick Sqr., Calcutta 700013.
Reliable Water Supply Service of India Pvt. Ltd., 1/11, E. Patel Nagar, New Delhi 110008.
United Tubewell Engg. Inds., 20B, Chanditala Main Rd., Calcutta 700063.
Universal Borewells & Agencies, 17/4, Cambridge Rd., Ulsoor, Bangalore 560008.
Wellwater Services Pvt. Ltd., P. K. Law Bldg., 63, Radha Bazar St., Calcutta 700001

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Amrapali Structurals Pvt. Ltd., 602, Sahyog, 58, Nehru Place, New Delhi 110019.
Bee Kay Enterprise, 9, Mango Lane, Room 4, Calcutta 700001.
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Hindustan Engg. Co., 53F, Sripuram Colony, St. Thomas Mount, Madras 600016.
Indofab Engrs., 26/27, Goodwill Assurance Bldg., Manamala Tank Rd., Mahim, Bombay 400016.
Kaveri Structurals, Senthapuram Golden Rock, Tiruchirapalli 620004. (T. Nadu).
Khandelwal Mfg. Corpn. Pvt. Ltd., Khandelwalnagar, Bhandup, Bombay 400078.
Mercury Engg. Works, 259, Engineer Bldg., S. Gandhi Mrg., Bombay 400002.
Metalforms Eng. Corpn., 96, Bora Bazar St., Bombay 400001.
OBER Structures (India) Pvt. Ltd., CA-50, Salt Lake City, Sector-1, Calcutta 700064.
Oms Engineering, No. 3, St. Xavier's St., Broadway, Madras 600001.
P.G. & W. Sawoo Pvt. Ltd., 28-A, Galif St., Calcutta 700004.
P.P. Engg. Co. Pvt. Ltd., 40, Cawasji Patel St., Bombay 400001.
Patcon Pvt. Ltd., 7A, Elgin Road, Bombay
Richardson & Cruddas (1972) Ltd., Byculla Iron Works, Bombay 400008.
Southern Structurals Ltd., Pattabiram, Madras 600072.
Steelite Engg. Corpn., 8, Nanabhai Lane, Bombay 400001.
Stewarts & Lloyds of India Ltd., 41, Chowringhee Road, Calcutta 700016.

Tasmur Marketing Service, 91, R.No. 10, Abdul Rehman St., Bombay 400003.
Union Steel, 2nd Flr., Capitol Cinema (Rear Side), Waudby Rd., Bombay 400001.

TURPENTINE & ROSIN

Dujodwala Resins & Terpenes Pvt. Ltd., 812/815, Tulsiani Chambers, 8th Flr., W. Wing, 212, N. Point, Bombay 400021.
Empee Corpn. Pvt. Ltd., 44, Cawasji Patel Street, Bombay 400001.
Himachal Govt. Rosin & Turpentine Factory, Nahan 173001.
Hindustan Rosin Industries, 137/141, Samuel St., Bombay 400009.
Jammu Rosin & Turpentine Factory, Miransahib, Jammu 180001.
Prabhat General Agencies, 154/6, Mittal Towers 'B', Nariman Point, Bombay 400021.
Prabhat Terpenes & Synthetics Pvt. Ltd., Indl. Estate, Baribrahmna, Jammu 180001.
Tarpina Pvt. Ltd., Mohan, Ramnagar 244715. Nainital Dist., U.P.

TYPEWRITERS & ACCESSORIES

Alphabetics Pvt. Ltd., 307, Bombay Mkt., Tardeo, Bombay 400034.
Facit Asia Ltd., Perungudi, Madras 600096.
Godrej & Boyce Mfg. Co. Pvt. Ltd., Lalbaug, Bombay 400012.
Hindustan Teleprinters Ltd., Guindy, Madras 600032.
Indian Communications Network Pvt. Ltd., 306, Tulsiani Chambers, N. Point, Bombay 400021.
Kores (India) Ltd., Plot No. 10, Off Dr. E. Moses Road, Worli, Bombay 400018.
Logic Systems Pvt. Ltd., Navsari Chambers, Parsotam Das Thakur Das Rd., Bombay 400001.
Rai & Sons Pvt. Ltd., 9-19, Connaught Place, New Delhi 110001.
Rayala Corpn. Madras Pvt. Ltd., 25A, Mount Road, Madras 600032.
Remington Rand of India Ltd., Remington House, 3, Council House Street, Calcutta 700001.
Sumathi Industries, 57A, Mount Road, Madras 600015.

TYRE MANUFACTURERS

(See under Rubber Products—Miscellaneous).

UMBRELLAS & UMBRELLA FITTINGS

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Bombay Umbrella Mart, 75, Imamwada Road, Near Moghal Masjid, Bombay 400009.
Champion Engg. Works Pvt. Ltd., S. Vivekanand Road, Bombay 400062.
Crescent Tools Corpn., 48-A, Govindpura Ind. Area, Raisen Road, Bhopal 462001.
Ebrahim Currim & Sons, Currim Bldg., S. Gandhi Mrg., Bombay 400002.
Hind Umbrella Mfg. Co., 201, Chakla St., Bombay 400003.
M. L. Mansukhani & Co. Pvt. Ltd., 69, S. Gandhi Marg, Bombay 400002.
Nagjee Purushotham & Co. Pvt. Ltd., 94/96, Princess Street, Bombay 400002.
Rajputana Traders, 65, Babu Genu Road, Bombay 400002.
Royal Umbrella Mart, 284, A. Rehman St., Bombay 400003.

VACUUM FLASKS

Ajanta Vacuum Flask Mfg. Co., M. Mohantola St., Calcutta 700005.
Eagle Flask Pvt. Ltd., Eagle Estate, Talegaon 410507. (Pune Dist.)
Eagle Vacuum Glass Ltd., New Ind. Township, Faridabad 121001.
J. G. Vacuum Flask Pvt. Ltd., Bombay Poona Road, Pimpri, Pune 411018.
Shree Gobindo Glass Works, 9, Ezra St., Calcutta 700001.
Victory Flask Co. Pvt. Ltd., Kachwadi, Govandi, Bombay 400071.

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Ushasri Industries, Ind. Estate, Balanagar, Hyderabad 500037.

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Continental Valve Ltd., New Asiatic Bldg., H Block, Conn. Circus, New Delhi 110001.
Ocean Valves (India), B-7, Meghdoot, 94, Nehru Place, New Delhi 110019.
R. D. Varma & Co. P. Ltd., 28, Barakhamba Road, New Delhi 110001.
Rapid Cool, 5/36A, Kirtinagar Indl. Area, New Delhi 110015.

Gujarat

Abdul Samad Abdul Kadar & Sons, 1839, Panchpatti, Kalupur, Ahmedabad 380001.
ACCU Flow Controls, 13, Niyojan Nagar, Ambawadi, Ahmedabad 380015.
Airconditioning Specialities, 40, GIDC Estate, Makarpura, Vadodara 390010.
Charul Valves Pvt. Ltd., 501, Sangeet Apartments, R. C. Dutt Rd., Alkapuri, Vadodara 390005.
Dandy Control Valve Pvt. Ltd., 12, GIDC Indl. Estate, Phase I, Vatva, Ahmedabad 382445.
Everest Ind. Corpn. Pvt. Ltd., Pratapnagar, Dabhol Road, Vadodara 390004.
Geeta Iron & Brass Works Pvt. Ltd., Bajuva 399310. Vadodara Dist.
Hitvic Engg. & Mfg. Co. Pvt. Ltd., 9/2, Vithal Udyognagar, Vallabh Vidyanagar 388120.

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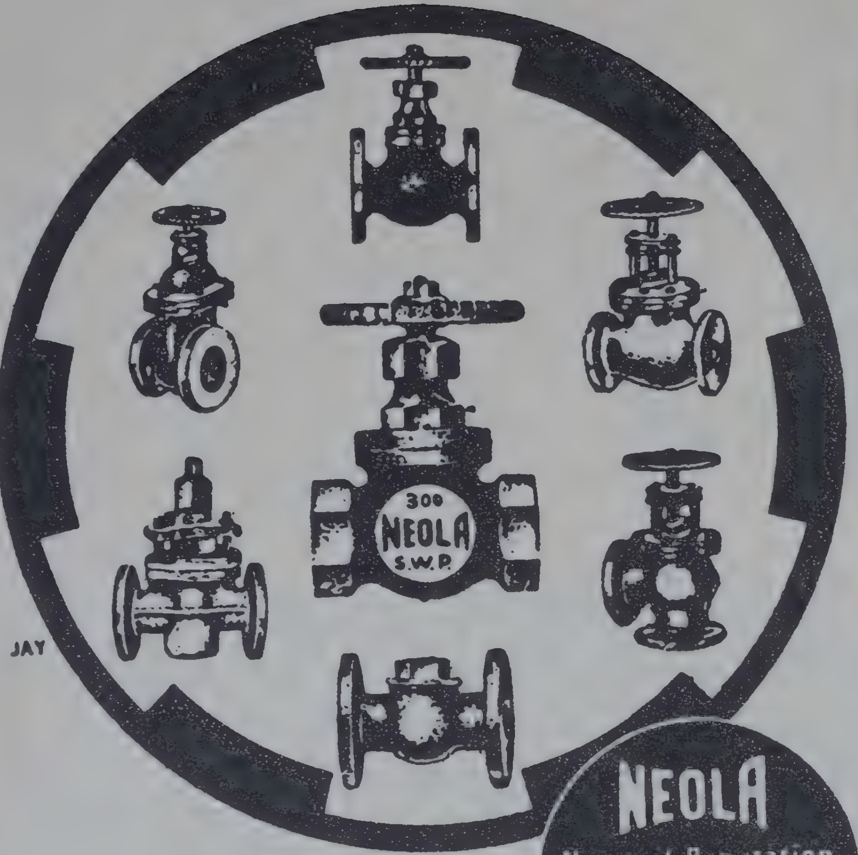

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Kumar Engg. Co., Behind Sukhram Nagar, Ahmedabad 380021.
M.H. Bros., Post Box 81, Kalupur Road, Ahmedabad 380001.
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Vikram Valves, C1-33, Ajit Ind. Estate, Rajkot 360003.
Welknown Bros., Near Zakaria Masjid, Relief Road, Ahmedabad 380001.

Haryana

Asian Valves Pvt. Ltd., 64, Sector 27C, Amarnagar, Faridabad 121003.

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B. D. K. Group of Companies, Kutchi House, Jayachamaraja Nagar, Hubli 580020.
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Triton Valves Ltd., 27, K.H. Road, Bangalore 560027.
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Instrumentation Ltd., Kanjikode West, Palghat 678623.

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Allied Hydro-Pneumatic Equipment, 2/A, Banaji Street, Bombay 400001.
Alloys Indl. Products, 133/7, Sion West, Bombay 400022.
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Audco India Ltd., L & T House, B. Estate, Bombay 400038.
Automech Engrs. Pvt. Ltd., 1st Pokhran Rd., Jekegram, Thane 400606.
Avcon Tools Pvt. Ltd., 23/24, Nandu Ind. Estate, Mahakali Caves Road, Andheri East, Bombay 400093.
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Bombay Metal & Alloy Mfg., Co. Pvt. Ltd., Off Magazine St., Near Reay Rd. Stn., Bombay 400010.
BSJ Shau Mfrs. (India), A-6, MIDC Area, Hingna Road, Nagpur 440016.
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Globe Engg. Corpn., Rajgor Chambers, P.B. No. 5191, Bombay 400009.
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Industrial Valves Mfg. Co., 96, Hamid Bldg., M. Azad Road, Bombay 400011.
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Kirloskar Brothers Ltd., Udyog Bhavan, Tilak Rd., Pune 411002.
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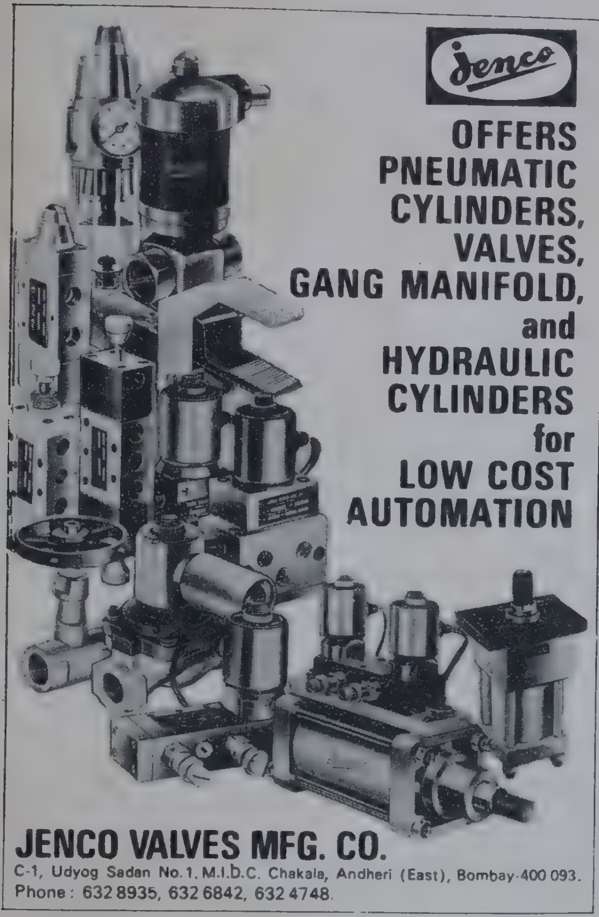
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Vanaz Engrs. Pvt. Ltd., 396, Savarkar Marg, Bombay 400025.
Vapor Boilers Pvt. Ltd., 505, Churchgate Chambers, New Marine Lines, Bombay 400020.

Punjab

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Bir Engg. Works, G.T. Road, Jullundur 144001.
Leader Valves Pvt. Ltd., Indl. Town, Jullundur 144004.
Sardar Sons, Overlock Rd., Millerganj, Ludhiana 141003.

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Industrial Valves & Equipments, 8, Kamdar Nagar, Madras 600034.
Kar Valves Ltd., 20, Second Line Beach, Madras 600001.
Petrochemical Engg. Enterprise, Ambattur Indl. Estate, G-20, II Main Rd., Madras 600058.
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SHI Engineers, 46, SIDCO Indl. Estate, Coimbatore 641021.
Southern Indaids Group, 103, Perambur Barracks, Madras 600007.
Telace Plants & Equipments Pvt. Ltd., Mount Poonamalee Road, Ramapuram, Madras 600089.
Tiger Sales Corpn., 1, Kellys Road, Madras 600010.

Uttar Pradesh

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Dey's Industries, 115, N. Subhas Road, Calcutta 700001.
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Indian Valve Co., 4, Fairlie Place, Calcutta 700001.
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Lakshmi Engg. Works, 77/6/1, Banaras Road, Howrah 711101.
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Macneill & Magor Ltd., 2, Fairlie Place, Calcutta 700001.
N. K. Inds., 146, B. K. Paul Avenue, Calcutta 700005.
Oriental Compressor Valves Inds., P-46A, Radhabazar Lane, Calcutta 700001.
Pelican Valves & Engg. Works, 10, Canning Street, Calcutta 700001.
Saibur General Mfg. Co., 79, N. Subhas Rd., Calcutta 700001.
Shiva Durga Iron Works Pvt. Ltd., 17, R. Ram Das Lane, Howrah 711101.
Shiva Engg. Works, 2, India Exchange Place, Calcutta 700001.
Shyam Cable Inds., 73/1, Cotton St., Calcutta 700007.
T.P. Bhattacharjee & Co., 20, N. Subhas Road, Calcutta 700001.
Tubes & Valves Mfg. Co., 83/85, Netaji Subhas Rd., Calcutta 700001.
Upadhaya Valves Mfrs. Pvt. Ltd., 23-A, Netaji Subhas Rd., Calcutta 700001.
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Southern Veneers & Wood Works Ltd., Post Box 35, Tellicherry 670101.
Veneers & Laminations (India) Ltd., M.G. Rd., Post Box 1009, Cochin 682011.

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Aerolux Venetian Blinds Mfg. Co., 5, Malcha Mrg. Mkt., Chanakyapuri, New Delhi 110021.
Alfab Mfg. & Trading Co., R.B. Gupta Prasad Bldg., XIV/4350, Pahari Dhiraj, S. Bazar, Delhi 110006.
Anand Venetian Blinds, 89, Sampige Road, Malleswaram, Bangalore 560003.
Ankool Corpn., 139-C, Bhuleshwar Rd., 2nd Flr., R. No. 121, Bombay 400002.
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Guru Om Corpon., 6, Keshavji Naik Rd., Bombay 400009.
Instruments Techniques Pvt. Ltd., B-2, C.I.E. Balanagar, Hyderabad 500037.
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M.V. Matthew & Co., 9, Byrasandra Rd., Jayanagar, Bangalore 560011.
Parag Corpn., 56/57, Nagdevi X Le. Bombay 400003.
Prafullakumar & Co., P. Box 7361, Andheri, Bombay 400058.
Premier Venetian Blinds Mfg. Co., 56, Pedder Rd., Bombay 400026.
Raj Agencies, Bombay Cotton Mills Compd., Kalachowki Rd., Bombay 400033.
Softile Venetian Blinds Mfg. Co., P. Box 8715, Andheri (E), Bombay 400069.
Sunderdas & Co., B/2, Atlas Mills Compd., Reay Rd., Bombay 400010.
Sunderdas Trading & Mfg. Co., 8, State Bank St., Madras 600002.
Sunder's Corpn., 162, Reay Rd., Bombay 400010.
Sunflex Venetian Blinds, 26, 6th Flr., Tardeo A/C Mkt., Bombay 400034.
Twilight Venetian Blinds, 7A-8, Botawala Bldg., Horniman Circle, Bombay 400023.
Unicrafts Corpn. (India), 11, V.N. Purav Mrg., Khajuri Chunabhatti, Kurla East, Bombay 400070.
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Venetian Blinds Mfg. Co., 5, Malcha Mrg. Mkt., Chanakyapuri, New Delhi 110021.
Vibhuti Udyog, 101, Thakurdwar Rd., Jetekerwadi, Bombay 400002.

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Agrogen India, B-4, E.E.I. Estate, Balanagar, Hyderabad 500037.
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Chhabi Electricals Pvt. Ltd., Plot A-7, Co-op. Indl. Estate, Ajantha Rd., Jalgaon 425001.
Continental Electronics, 177/4, Naroda Indl. Estate, Naroda 382330. (Ahmedabad Dist.).
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Frank Sudhachand & Co., Post Box 6825, Bombay 400055.
Jivan Electro Instruments, 394, GIDC, Makarpura, Vadodara 390010.
Kundan Marketing, 252, Mount Road, Teynampet, Madras 600006.
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Mecotronics Pvt. Ltd., 11A/1, Mount Rd., Madras 600002.
Motwane Pvt. Ltd., 127, M. Gandhi Rd., Bombay 400023.
Multi Marketing Co., 1/12, Kirti Nagar, New Timber Mkt., New Delhi 110015.
Newtronics Pvt. Ltd., 34, Electronics Estate, Kushaiguda, Hyderabad 500762.
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Pace Electronics Pvt. Ltd., A-Z Indl. Estate Annexe, Fergusson Rd., Lower Parel, Bombay 400013.

Paramount Inc., 1, Mangesh St., T. Nagar, Madras 600017.
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Prajay Electronics, 30, Vembuli Subedar St., Madras 600019.
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S.C. Shah, 36, Mount Rd., Madras 600002.
Sakthi Electronics, Type L/13, V.S. Instronic Estate, Madras 600041.
Sanghavi Enterprises, 653-A, Girgaon Rd., Dhobi Talao, Bombay 400002.
Sen & Pandit Ltd., 168, Lake Rd., Calcutta 700029.
Servoelec, 'Girija', 4/3, Karve Rd., Pune 411004.
South Eastern Equipment Co., 6-1-285/13, 12, Padmarao Nagar, Secunderabad 500025.
Suman Electronics, 17-A, Electronic Complex, Kushaiguda, Hyderabad 500762.
Triple Star Electronics, 11/1, B.T. Rd., Calcutta 700056.
Voltas Ltd., Appliances Dn., 503, Anna Salai, Madras 600018.

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GRD Elektro Sales Pvt. Ltd., 6-3-456/23, Panjagutta, Hyderabad 500004.
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Heco Electronics Pvt. Ltd., 35, Mount Rd., Madras 600002.
Indian Mfrs. & Marketers, F-7, Katwaria Sarai, New Delhi 110016.
National Products (Regd.), 10, Nursery Rd., Model Town, Jullundur 144003.
Peaca Inds., Thudiyalur, Coimbatore 641034.
Pharmalab Inds., Star Metal Compd., LBS Marg, Vikhroli, Bombay 400083.
Shaco Inds., Near Shardashram; Bhavanishanker Rd., Dadar, Bombay 400028.

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Sikkim Jewels Ltd., Jewel House, Gangtok 737101. (Sikkim).

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Collins & Co., Bentex Bldg., Tulsiwadi, Bombay 400034.
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Empee Enterprises, 94, Jolly Maker Chambers, N. Point, Bombay 400021.
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Madhu & Usha, 211, Bharat Indl. Est., T. Jivraj Rd., Sewree, Bombay 400015.
Mahendra Inds., Takurwadi, G.B. Rd., Dahisar, Bombay 400068.
Pahlaj Bajaj & Co. (Novelties) Pvt. Ltd., 63, Jolly Maker Chamber 1, Nariman Point, Bombay 400021.
Prakash Straps Mfg. Co., C/o Swiss Trading Corpn., 28, Gobind Mahal, 86-B, N. Subhas Rd., Bombay 400002.
Sadhana Rhodium Plating Works, Empire Bldg., Room No. 34, Dr. D.N. Rd., Bombay 400001.
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Chronomatic Ind. Pvt. Ltd., Prakash Mills Comp., Off Globe Mills Passage, Bombay 400013.
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Dee Man International, 8, Coronation Hotel, Fatehpuri, Delhi 110006.
Eastern Watch Co., 231-3, Dr. D.N. Road, Bombay 400001.
Express Watch Co., 78, A. Rehman St., Bombay 400003.
Favre Leuba & Co. Ltd., 221, Dr. D. Naoroji Rd., Bombay 400001.
G.A. Tanwani Time Inds., 211, Arun Chambers, Tardeo Rd., Bombay 400034.
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Gupta & Goel, 4, Ready Money Terrace, 2nd Flr., 167, Dr. A. Besant Rd., Bombay 400018.
HES Ltd., Jogeshwari Estate, S. Vivekanand Rd., Bombay 400060.
Jayna Time Ind. Pvt. Ltd., 7/25, Daryaganj, New Delhi 110002.
JK Time, P.B. No. 16927, Sompuri Mkt., Stn. Rd., Santacruz (West), Bombay 400054.
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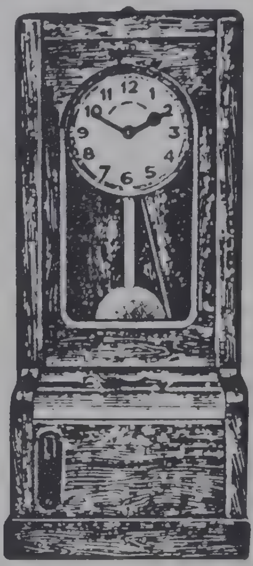

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West End Watch Co., M. Gandhi Rd., Bombay 400023.

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Hyderabad Allwyn Ltd., Watch Dn., Sanatnagar, Hyderabad 500018.
Indian Time Inds., GIDC Godown Unit No. 6, Ankleshwar 393002. (Gujarat).
Indo French Time Ind. Ltd., Udyognagar, S. Vivekanand Rd., Bombay 400062.
Indo-Swiss Time Ltd., A-23 New Shopping Complex, Defence Colony, New Delhi 110024.
Jayna Time Ind. Pvt. Ltd., 7/25, Daryaganj, New Delhi 110002.
Khanna Watches Ltd., 759, Sector 8B, Chandigarh 160017.
Monica Electronics Pvt. Ltd., 87, DSIDC, Okhla Complex, Phase II, New Delhi 110020.
Nasa Watches Pvt. Ltd., Sylvex Cable Compound, Saki Vihar Rd., Bombay 400072.
Packard Agencies, 4736/23, Ansari Rd., New Delhi 110002.
Pancholi Watch Co., Opp. Rly. Stn., Chembur, Bombay 400071.
Raghav Electronic Ind. Pvt. Ltd., Solan 173211. H.P.
Sandoz (India) Watch Industries, B-20, Jhilmil Indl. Area, Shahdara, Delhi 110032.
Sarwa Time Inds., Chandni Chowk, Delhi 110006.
Sondhi Tressa Time Ind. Pvt. Ltd., 1139, Chandni Chowk, Delhi 110006.
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Everest Inds., 210, Jolly Bhuwan No. 2, 7, New Marine Lines, Bombay 400020.
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Panchmal Indl. Corpn., Ghatkopar Guest House, Opp. Rly. Stn., Bombay 400086.
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Moscow Meters, 1, Pollock St., Calcutta 700001.
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Starit Engg. Co. (N.D.), K-21, H. Khas Enclave, New Delhi 110016.

Gujarat

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Environmental Systems, Mahalaxmi Chambers, 22, B. Desai Rd., Bombay 400026.
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Thermax Pvt. Ltd., 1216/7, Shivajinagar, Fergusson Coll. Rd., Pune 411004.
Wasco Engg. Corpn., Post Box 27370, Andheri West, Bombay 400058.
Westend Trading Co., 210, Dr. D. N. Rd., Bombay 400001.

Tamil Nadu

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Walter Treatment Co., 48-A, Sivanar Chetty No. 3 St., Salem 636006.

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Vinny Technocrats Pvt. Ltd., 1, Kyd St., Calcutta 700016.
Waterman India Pvt. Ltd., 6A, Commerce House, 2, G.C. Ave., Calcutta 700013.
Zeolite India, 344/5, N.S.C. Bose Rd., Calcutta 700047.

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Madras Paper Inds., 356, T.H. Rd., Madras 600021.
Modern Waterproof & Paper Mfg. Co., 109, Masjid Bunder Rd., Bombay 400003.
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Ramplast Pvt. Ltd., Post Box 16, Pimpri, Pune 411018.
Standard Paper Inds. Corpn., 151, Broadway, Madras 600001.
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Chemisol Inds., 41, Princess St., Bombay 400002.
Hindustan Laminators, 130, Cotton St., Calcutta 700007.
Pacific Chemicals, P.O. Box 2532, Kalbadevi Rd., Bombay 400002.
Roman Inds., J.B. Nagar, Andheri East, Bombay 400059.
Shalimar Tar Products, 6, Lyons Range, Calcutta 700001.
South India Waterproofing Co., 3B & 3C/32, Sembudoss St., Madras 600001.
Surfacoats Pvt. Ltd., 358, III Block, Rajajinagar, Bangalore 560010.
Waterproof Corpn. Pvt. Ltd., Waco House, Masrani Lane, Kurla, Bombay 400070.

WAX & WAX PRODUCTS

Bhattad Chemical Complex, 272/273, Angappa Naicken Street, Madras 600001.
Chemofine Inds., 366, Salem Sorai, Allahabad 211001.

Esabhai Valimohamed & Co., 282-284, Samuel St., Bombay 400003.
Fateh Inds., 313, Samuel St., Bombay 400003.
Hindustan Candle Mfg. Co., Khatau Bldg., S.S. Rao Rd., Bombay 400012.
Indian Wax Ind., 4, Haresh Chambers, 313, Samuel St., Bombay 400003.
Jains Colour Mfg. & Supplies, 9/2692, Gali No. 17, Kailash Nagar, Delhi 110031.
Kedia Shellac Inds., Raniganj 824210 (Gaya).
Kirti Kumar Chandulal & Co., 50, Issaji St., Bombay 400003.
Mahatha Petrochemicals, Sree Meenakshi Gardens, Kizhakattalai, Madras 601303.
Maks Chem Inds., 89, Princess St., Bombay 400002.
Mansaram & Co., 315/317, Abdul Rehman St., Bombay 400003.
Mehta Inds., 18, Nehru Rd., Sivakasi 626123. (Tamil Nadu).
National Sealing Wax Mfrs., 315/317, A. Rehman St., Bombay 400003.
Petrolite Corpn., 14-A, Anantdeep Chambers, 273/77, N. Natha St., Bombay 400009.
Selvam Chemical Inds. P. Ltd., Sivakasi 626123. (Tamil Nadu).
Span Waxchem Inds., 636/3, Companywala Mkt., Kapasia Bazar, Ahmedabad 380002.
United Industries, 364/370, Samuel St., Bombay 400003.
Waxoils Pvt. Ltd., Mahavir Darshan, R. No. 14, Bhandari St., Bombay 400003.

WEIGHBRIDGE, WEIGHING MACHINES & SCALES

Andhra Pradesh

Narne Tulaman Manufrs. Pvt. Ltd., Balanagar Township, Hyderabad 500037.

Delhi

Aval Scales Inds. Pvt. Ltd., E-148, Kalkaji, New Delhi 110049.
Avon Scales Co., 28, Motia Khan, Jhandewalan Rd., New Delhi 110055.
Precision Machinery Co. Pvt. Ltd., M.C.D. Bldg., D.B. Gupta Rd., Paharganj, New Delhi 110055.

Gujarat

Eagle Scale Mfg. Works, Behind Vimal Mills, Opp. Indl. Area, Naroda, Ahmedabad 382330.

Haryana

Unique Inds., Premnagar, Ambala City 134003.

Karnataka

Venkateswara Weighing Services, 306, R.P.C. Bldg., Old Tharagupet, Bangalore 560063.

Maharashtra

A.M. Master & Co., 179, Janjikar St., Bombay 400003.
Accurate Weighing Machines Co., Motishaw Rd., Bombay 400027.
Acme Scales Co., 324-C, Grant Rd., Bombay 400007
Amex Scales Pvt. Ltd., 202, Anurag Apartment, 67-D, Warden Rd., Bombay 400026.
Avery India Ltd., 8, Narottam Morarjee Marg, Ballard Estate, Bombay 400038.
Crown Scales, M. Vasanji Rd., Makwana, Marol Naka, Bombay 400059.
Emkay Weighing Equipments, Post Box 880, Bombay 400001.
Fidaalli Gulamali, 163, Janjikar St., Bombay 400003.
Francis Klein & Co., (Bombay) Pvt. Ltd., Shale Bldg., Bank St., Bombay 400023.
Gramtom Equipments Co., A-5, Anuradha, 36, Moghul Lane, Bombay 400016.

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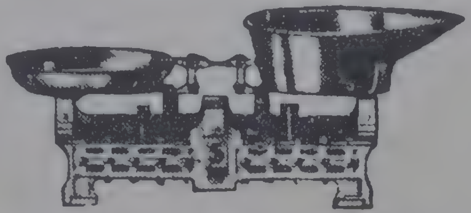

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National Metal Ind., 15A, Parel Village Rd., Bombay 400012.
Petzru (India), 72, Mistry Ind. Complex, M.I.D.C., Chakala, Andheri East, Bombay 400093.
Philips Weighmech Pvt. Ltd., 6B, Ansa Indl. Estate, Sakivihar Rd., Saki Naka, Andheri (E), Bombay 400072.
St. Joseph Engg. Works, 260/18-20, Sane Guruji Marg, Jacob Circle, Bombay 400011.
Vaid Enterprises, 215-A, Maulana Azad Rd., Bombay 400008.
Vigilant Scales & Services, Post Box No. 7181, Kurla, Bombay 400070.
Western Scales Co., S.V. Rd., Near Khira Nagar, Santacruz West, Bombay 400054.

Tamil Nadu
C.K.P. Industries (Regd.), 14, Madhavaram High Rd., Madras 600060.
Equipments India, 459, Bharathiar Rd., P.N. Palayam, Coimbatore 641037.
Everest Scales Co., 262, Trichy Rd., Coimbatore 641018.
Giri Bros., 51, 1st Line Beach, Madras 600001.
Meena Scales Co., 475-A, Chetty St., Coimbatore 641001.
Sarda Scales Co., 275, Thambu Chetty St., Madras 600001.
Sri Venkateswara Scales Co., 79, Acharappan St., Madras 600001.

Uttar Pradesh
Vishwakarma Scales Corpn., Post Box 31, Roorkee 247667.

West Bengal
Asiatic Machinery Corpn. Pvt. Ltd., 10/1, K. Chandra Lane, Howrah 711104.
Avery India Ltd., 28/2, Waterloo St., Calcutta 700069.
Bharat Weighing Scales & Engg. Syndicate, 75/1, K. Nundy Lane, Howrah 711101.
Bharati Scales & Engg., 4/1, Haldarpara Le., Howrah 711101.
Eastern Scales Pvt. Ltd., 12, Gurusaday Rd., Calcutta 700019.
George Salter India Ltd., Chartered Bank Bldg., Calcutta 700001.
Howrah Tdg. & Engg. Co., 96/98, Narsingh Dutta Rd., Howrah 711106.
India Machinery Co. Ltd., Dassnagar, Howrah 711105.
N.C. Das & Bros., 10/13, B. Mullick Lane, Howrah 711101.
Rovus India Machinery Mfg. Co., 33, M. Bhattacharjee Rd., Howrah 711104.
W.B. Scales Co. Pvt. Ltd., 10K, Chandra Lane, Howrah 711104.

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Andhra Pradesh
Electric Transformer & Equipment Co., B-29/30, Indl. Est., Sanatnagar, Amirpet, Hyderabad 500018.
Mishra Dhatu Nigam Ltd., Kanchanbagh, Hyderabad 500258.
Prefab Gratings Ltd., 44/3 RT, Sanjeevareddy Nagar, Hyderabad 500018.
Southern Electrodes Pvt. Ltd., Moula Ali, Hyderabad 500017.

Bihar
Fusion Engg. Products Ltd., B-16, VIth Phase, P.O. Gamaria, Singhbhum, Jamshedpur 832108.

Delhi
A.S. Jain Electrodes, 12/50008, Hauz Qazi, Delhi 110006.
Bharat Electric Works, 22, Qutab Rd., Delhi 110006.
Chawla Arc Welding Transformers, 1478, S.P. Mukherjee Marg, Delhi 110006.
H.S. Balbir & Bros., A-14, Rana Pratap Bagh, Delhi 110007.
Hindustan Trading Corpn. (India), A-40, Wazirpur Indl. Area, Delhi 110052.
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Kapoor Electrodes Pvt. Ltd., 1E-18, Jhandewalan Extn., New Delhi 110055.

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Rajindra Electric Works, 3539, Qutab Rd., Delhi 110006.
Sham Ravindra & Co. (Regd.), 23, New Qutab Rd., Delhi 110006.
Stereo Welders (India), 301, M.C.D. Bldg., 2nd Flr., Saraswati Marg, Karol Bagh, New Delhi 110005.
Tejindra Electric Works, 24, New Qutab Rd., Delhi 110006.
Weldmaster Electrical Co. (India), Weldmaster House, Church Rd., Kashmere Gate, Delhi 110006.

Goa

Goa Super Electrodes Pvt. Ltd., SA-10, Indl. Estate, Zuarinagar 403726.

Gujarat

Axon Controls, E/2, Ind. Estate, Gorwa Rd., Vadodara 390003.
Bharat Forge & Press Ind., Plot No. 35, G.I.D.C. No. 2/A1, Makarpura Ind. Estate, Vadodara 390009.
Cema Pvt. Ltd., Opp. D. Cabin, Chhani Rd., Vadodara 390001.
Kobe Steels Pvt. Ltd., 4, Parimal Park, Behind Delux Socy., New Chhani Rd., Vadodara 390002.
Schutz Cutarc Pvt. Ltd., Outside Delhi Gate, Shahibaug Rd., Ahmedabad 380004.
Welding Rods Mfg. Co., Post Box 20, Rd. No. 7/8, Indl. Estate, Udhna 394210.

Haryana

Special Machines, Byepass, Kunjpura Crossing, Karnal 132001.

Karnataka

F. Fibre (Bangalore) Pvt. Ltd., A-83, Ind. Estate, Rajajinagar, Bangalore 560044.
J.B. Advani & Co. (Mysore) Pvt. Ltd., 17/8, Ali Asker Rd. Cross, Off Cunningham Rd., Bangalore 560052.
Kirloskar Electric Co. Ltd., Ind. Area, Bangalore 560010.
Weldcraft Pvt. Ltd., 60, Indl. Suburb, Bangalore 560022.
Widia (India) Ltd., 8/9th Mile, Tumkur Rd., Bangalore 560022.

Madhya Pradesh

D & H Secheron Electrodes Pvt. Ltd., 44/46, Indl. Estate, Kila Maidan, Indore 452006.

Maharashtra

Advani-Oerlikon Pvt. Ltd., Radia House, 6, K. Dubash Mrg., Bombay 400001.
Alps Trdg. Co., 49-57, Bibijan St., Bombay 400003.
Apar Pvt. Ltd., 24, S.A. Brelvi Rd., Bombay 400023.
Arc Brazer Pvt. Ltd., 20, Jackeria Bunder Rd., Cotton Green, Bombay 400033.
Arcon Inds., 340-48, Sahakar Bhuvan, Room 101, N. Natha St., Bombay 400009.
Asian Metal Inds., 91, Kika St., Gulalwadi, Bombay 400004.
Automatic Elec. Pvt. Ltd., Rectifier House, Naigaum X Rd., Bombay 400031.
Chemi Weld Inds., 187, Dr. D.N. Rd., Near Central Camera, Bombay 400001.
Daga Udyog, 32, Dr. Wilson St., Bombay 400004.
Deepak Inds., 17, Sitafaldi, Dr. Mascarenhas Rd., Mazgaon, Bombay 400010.
Dowell's Elektro Works, Satguru Estate, Off Aarey Rd., Goregaon (East), Bombay 400063.
EBY Industries, Bldg. No. 2, Tank St., Nagpada, Bombay 400008.
Electroweld Inds., Opp. Navjivan Socy., Mahul Rd., Chembur, Bombay 400074.
Estiwelding Corpn., 254, Nagdevi St., Bombay 400003.
Ewac Alloys Ltd., L. & T. House, B. Estate, Bombay 400038.
Fatechand & Co., 118, Arun Chambers, Tardeo Rd., Bombay 400034.
General Electrodes & Equipment Ltd., Jiji House, Ravelin St., Bombay 400001.
General Engg. Corpn., Samroz Ind. Estate, Bombay 400062.
Hasmukh Traders, 8, Jawahar Nagar, S.V. Rd., Goregaon, Bombay 400062.
Hind Rectifiers Ltd., Lake Rd., Bhandup, Bombay 400078.
Indian Oxygen Ltd., L.B. Shastri Marg, Ghatkopar West, Bombay 400086.
Indian Smelting & Refining Co. Ltd., LBS Mrg., Bhandup, Bombay 400078.
Industrial Mfg. Syndicate, 17, Kewal Indl. Estate, S. Bapat Mrg., L. Parel, Bombay 400013.
Jai Balaji & Co., Opp. A.C. Mkt., 84, AB, Tardeo Rd., Bombay 400034.
Jaya Hind Sciaky Ltd., D-1 Block, Plot No. 181, Chinchwad, Pune 411019.
Jitendra Metal Inds., 11, Anupam Ind. Estate No. 2, Opp. Ralliwolf, Agra Rd., Bombay 400080.
Kanubhai Engrs. Pvt. Ltd., 117, Bajaj Bhavan, N. Point, Bombay 400021.
Kayjay Engineers, 123, Mahatma Gandhi Rd., Bombay 400023.
Kearc Welding Equipment, 117, Bajaj Bhavan, Nariman Point, Bombay 400021.
Kejee Electric Co., A-121, H. Block, M.I.D.C., Pimpri, Pune 411018.
Khosla Engg. Pvt. Ltd., 43, Aundh Rd., Kirkee, Pune 411003.
Larsen & Toubro Ltd., L & T House, Ballard Estate, Bombay 400038.
Malik & Co., 157/78 Maulana Shaukatali Rd., Two Tanks, Bombay 400004.
Malik Electricals Pvt. Ltd., Tejpaul's Compd., Kurla-Andheri Rd., Saki Naka, Bombay 400072.
Mechelonic Welders Pvt. Ltd., 18, Govt. Indl. Estate, Kandivli West, Bombay 400067.
Metasafe Trading Corpn., 65, Apollo St., Bombay 400023.,
Miraj Electl. & Mechanical Corpn., M. N. D'Souza Compd., Kherani Rd., Sakinaka, Bombay 400072.
Monga Electronics Pvt. Ltd., P. Box 7616, Malad West, Bombay 400064.
Parekh Bros. Pvt. Ltd., 65, M. Gandhi Rd., Bombay 400023.
Peico Electronics & Electricals Ltd., Welding Dn., Band Box Bldg., 254-D, Dr. A. Besant Rd., Bombay 400025.
Polyarc Machines Pvt. Ltd., Chandu Studio Compd., Opp. Old Kalina Mkt., Bombay 400098.
Power Pack Enterprises, Old Nagardas Rd., Andheri East, Bombay 400069.
Premier Electrodes Pvt. Ltd., E-43, MIDC Area, Satpur, Nasik 422007.
Sap Inds., 167, Vidyanagari Mrg., Kalina, Bombay 400098.
Shree Shamalji Ind., 15-D, Agiary Lane, Kalbadevi, Bombay 400002.
Sparkweld, 34, Balaram Bhawan, 350-52, Grant Rd., Bombay 400007.
Steelweld Inds., 65, Apollo St., Bombay 400023.
Supreme Electric & Engg. Works, Acharya Indl. Estate, Wadavali, Chembur, Bombay 400074.
Technical Auto Welding Works, 362, V.P. Road, Bombay 400004.
Trade (India) Corporation, 231, Dr. D. N. Rd., Bombay 400001.
Tradeweld, 7, Kakad Chambers, 132, Dr. A. Besant Rd., Worli, Bombay 400018.
Universal Agencies, 250, Reay Rd., Bombay 400010.
Universal Welding & Engg. Co., Wagle Ind. Estate, Bombay-Agra Rd., Thane 400604.
Vishwa Bharati Trdg. Co., 45, Mint Rd., Bombay 400001.
Weldaid Ind., 58/59, Goa St., Near G.P.O., Bombay 400001.
Weldwell Electrodes Pvt. Ltd., Tardeo Bldg., Tardeo Rd., Bombay 400007.

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Madras: 5, Smith Road, Madras 600 002. Phone: 87596/86719 Gram: WELDTEKNIK

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Tamil Nadu

Ahura Welding Electrode Mfrs. Ltd., Plot No. 58 (South Phase), Ambattur Indl. Estate, Madras 600058.
Annamalai Electric Co., 34, S. Chetty St., Madras 600002.
Asiatic Engg. Services, 28-F, Wallers Rd., Madras 600002.
D. & H. Electrodes, Khivraj Estate, 624, Anna Salai, Madras 600006.
Industrial Enterprises, 57, General Patters Rd., Madras 600002.
Mardia Ind. Corpn., Ind. Estate, Vyasarpadi, Madras 600039.
Rockweld Electrodes India Ltd., 29, Indl. Estate, Ambattur, Madras 600058.
Shenoy Electl. Inds., K-2, Vyasarpadi Ind. Estate, Erukancheri High Rd., Madras 600039.
VNC Electrodes, 11, West Madavirugam St., Karur 639001.

Uttar Pradesh

Maheshwari Ind. Corpn., Sarrafa, Meerut 250001.
Modi Arc Electrodes Co., Modinagar 201201 (Ghaziabad Dist.).

West Bengal

Asiatic Oxygen Ltd., 8, Dalhousie Sq. East, Calcutta 700001.
Basmall & Co. (India) Pvt. Ltd., 56-D, Beadon St., Calcutta 700006.
Biswa Trading Corpn., 85, Netaji Subhas Rd., Calcutta 700001.
Daga Udyog, 418, Brajodulal St., Calcutta 700006.
Dey's Electl. & Engg. Works, 11/B, Rahim Ostagar Rd., Calcutta 700045.
Electrodes (India) Pvt. Ltd., 74, Beliaghata Rd., Calcutta 700010.
Guest Keen Williams Ltd., 3A, Shakespeare Sarani, Calcutta 700016.
Indian Oxygen Ltd., Oxygen House, P-34, Taratolla Rd., Calcutta 700088.
Industrial Gases Ltd., Electrodes Gauges Dn., 15, G.C. Ave., Calcutta 700001.
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Jai Hanuman Indl. Corpn., 1, Bonefield Lane, Calcutta 700001.
Jindal Traders, 89, N. Subhas Rd., Calcutta 700001.
Kanubhai Engineers Pvt. Ltd., 3, Mangoe Lane, Calcutta 700001.
New Dominion Engg. Works, 1/B, Pottery Rd., Calcutta 700015.
P.D. Inds., Everest House, 46C, Chowringhee Rd., Calcutta 700071.
Planters' Stores & Engg. Co., Mercantile Bldg., 9, Lallbazar St., Calcutta 700001.
Sur Iron & Steel Co. Pvt. Ltd., 15, Convent Rd., Calcutta 700014.
Vomex (India) Corpn., 85, N. Subhas Rd., Calcutta 700001.
Weldman Gloves & Inds., 30, Sir Hari Ram Goenka St., Calcutta 700007.

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Associated Engg. Inds., Near H.M.T., Beawar Rd., Ajmer 305003.
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Bombay Furnaces Pvt. Ltd., Stadium House, V. Nariman Rd., Bombay 400020.
Diamond Cables, 5/12, GIDC, Gorwa Rd., Vadodara 390016.
Hind Engg. Works, 2, Kundan Lane, Liluah 711204, Howrah Dist.
Keshavlal & Sons, P.B. No. 222, Jamnagar 361001.
Khemka Instruments Pvt. Ltd., 21A, Shakespeare Sarani, Calcutta 700017.
Much Engg. Pvt. Ltd., 7, Lake Rd., Calcutta 700029.
Novelty Engg. Co., B. Lahiri Lane, Santragachi 711104, Howrah Dist
Panyam Cements & Mineral Inds. Ltd. (Wire Dn.), Bommanahalli, P.O. Madivala, Bangalore 560068.
Promain Ltd., Kanchanjunga, 18, Barakhamba Rd., New Delhi 110001.
S.E.A. Corpn. India Pvt. Ltd., P-22, Swallow Lane, Calcutta 700001.
Sampat Heavy Engg., 4B/C, Archana Indl. Estate, Rakhial, Ahmedabad 380023.
Trafico & Corslite Pvt. Ltd., 10-A/B, Polo Ground, Indore 452003.
Wire Engrs., 26, Serpentine St., Richmond Town, Bangalore 560025.
Wire Machinery Corpn. Ltd., 1/A, Vansittart Row, Calcutta 700001.

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(See 'Wire Products' in this list.)

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Jai Shree Filtration, 1-7-1072/4, RTC X Rd., Musheerabad, Hyderabad 500020.
Vishaka Wire Ropes Ltd., D-15 & 16, E.E.I. Estate, Vishakapatnam 530012.

Bihar

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Delhi

Accurate Wire Industries, 3392, H. Baqua St., Hauz Khas, Delhi 110006.
Jainsons Steel Rand & Metal Industries, 294, Inside Ajmeri Gate, Delhi 110006.

Gujarat

Industrial Fasteners of Gujarat Pvt. Ltd., Maneja, Vadodara 390013.
National Wire Products, 6, Rajput Para, Rajkot 360001.
Navsari Processing Ind. Pvt. Ltd., Near Rly. Stn., Maroli 396436.
Tensile Steel Ltd., Lalkuva, Vishwamitri Rd., Vadodara 390001.

Haryana

Industrial Cables (India) Ltd., Lalchand Nagar, P.O. Julana 126101, Dt. Jind.
Ratna Industries, 24, K.M. Mathura Road, Faridabad 121003.

Karnataka

Canara Wire & Wire Products Pvt. Ltd., Azeezzuddin Rd., Mangalore 575001.
Deccan Wires Ltd., P.O. D.R. Coll., Bommanahalli, Bangalore 560029.
Fasteners & Formers, Dyvasandra Indl. Area, Whitefield Rd., Bangalore 560048.
Mysore Wire & Metal Inds., 13, 4th Cross, Magadi Rd., Bangalore 560023.
Panyam Cements & Mineral Inds. Ltd., Wire Dn., Bommanahalli, P.O. Madivala, Bangalore 560068.
South India Electrical Corpn., 229, New Mkt., Chickpet, Bangalore 560053.

Madhya Pradesh

Vora Wire, Sanwer Rd., Indl. Estate, Sector A, Indore 452003.

Maharashtra

A.A. Morbiwalla & Co., 109-111, A. Rehman St., Bombay 400003.
Abdulhusein Peerbhoy & Sons, 66/67, Bhandari St., Bombay 400003.
Ajit Wire Industries Pvt. Ltd., 58, M. Vissanji Rd., Bombay 400059.
B.R. Wire Nails Pvt. Ltd., Vaswani Mansion, Dinshaw Vachha Rd., Bombay 400020.
Bharat Engineering & Wire Products, 24, 2nd Bhoiwada, Bombay 400002.
Bhilai Wires Ltd., 103, Loha Bhavan, P. D'Mello Rd., Bombay 400009.
Bombay Nails Pvt. Ltd., 11, Horniman Circle, 2nd Flr., Bombay 400023.
Bombay Wire Cloth Co., 172-74, Hornby Bldg., 2nd Flr., Dr. D. N. Rd., Bombay 400001.
Bombay Wire Netting Co., B.M.C. Chawl, Sabu Siddique Rd., Bombay 400001.
Bombay Wire Ropes Ltd., Jolly Bhavan No. 1, New Marine Lines, Bombay 400020.
Bohra Metal & Wire Ind., Opp. Premier Automobiles, Off Agra Rd., Kurla, Bombay 400070.
Eldee Wire Ropes, 3, Broach St., Bombay 400009.
Evergreen Wirecloth Factory Pvt. Ltd., 3-D, Maker Bhavan No.2, New Marine Lines, Bombay 400020.
Great India Net Industry, 10, Homi Mody St., Bombay 400023.
Harishchandra & Co., Jaliwala, 233, A. Rehman St., Bombay 400003.
Hindustan Transmission Products, Shree Niketan, F Block, Shiv Sagar Estate, Worli, Bombay 400018.
India Steel Inds., 134, N. Dhuru St., Bombay 400003.

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J.J. Wire Cloth Inds., 105/107, Abdul Rehman St., Bombay 400003.
Jeetmul Jaichandlal Pvt. Ltd., 105/107, A. Rehman St., Bombay 400003.
Kismet Pvt. Ltd., Western Express Highway, Andheri East, Bombay 400099.
Kumar Wirecloth Mfg. Co. Pvt. Ltd., 31, Old P.O. Lane, Kalbadevi Rd., Bombay 400002.
Laxmi Wire & Metal Industries, 202, Arun Chambers, 2nd Flr., Tardeo Rd., Bombay 400034.
Manco Sales Corpn., 256/58, N. Natha St., Bombay 400009.
Metal Perforators, 43, A. Rehman St., Bombay 400003.
Mohatta & Heckel Ltd., Mustafa Bldg., Sir P. Mehta Rd., Bombay 400001.
Multiweld Wire Co. Pvt. Ltd., 59, Marol Maroshi Rd., Bombay 400059.
N.J. Metal Screens Mfrs. Pvt. Ltd., 134, N. Master Rd., Bombay 400001.
National Wire & Metal Industries, Sonawalla Rd., Goregaon (East), Bombay 400063.
National Wire & Wire Products, 36, Tamarind Lane, Bombay 400023.
Nemat Wire Netting Products, 145, Nagdevi St., Bombay 400003.
New Era Trading Agency, Kotkar Indl. Estate, Goregaon East, Bombay 400063.
Prakash Engg. Works, Tarun Plastic Compound, Nagardas Rd., Mogra, Andheri (E), Bombay 400069.
Precision Wire Inds., Bombay Mutual Annexe, 17, R. Sidhwa Mrg., Bombay 400001.
Rainbow Iron Works, 113, A. Rehman St., Bombay 400003.
S. Mehta & Co., Anees Chambers, Near Carnac Bridge, Bombay 400001.
Shah Steels Inds. Pvt. Ltd., Post Box No. 7722, Bombay 400092.
Shalimar Wires & Inds. Ltd., E-26/29, Indl. Area, Satpur, Nasik 422007.
Shree Ganesh Wire Ind., 26/28, Bapu Khote Crosslane, Bombay 400003.
Shree Wire Rope Mfg. Co., Hanuman Silk Mills Compd., Opp. Dock Yard Colony, Bhandup, Bombay 400078.
Sriram & Co., 97, N. Dhuru St., Bombay 400003.
Standard Wire Products, 83, Maharshi Karve Marg, Bombay 400020.
Suprasteel Inds. Inc., C-202, Prakashnagar, Mogul Lane, Bombay 400016.
United Wire Ropes Ltd., 1st Pokhran Rd., Thane 400601.
Vertex Wire & Metal Inds. Pvt. Ltd., Post Bag No. 7722, Borivli, Bombay 400092.
Western India Wire Inds., 513, Pokhran Rd., No. 2, Thane 400601.
Wishvas Trading Corpn., 285, Tardeo Rd., Shastri Hall New Bldg., Near Nana Chowk, Grant Rd., Bombay 400007.
Zenith Iron Works, 46, Abdul Rehman St., Bombay 400003.

Pondicherry
Pondy Welded Mesh, Valudavur Rd., Muthirapalayam, Pondicherry 605010.

Punjab
Janta Wood & Metal Works, St. No. 2, Azad Nagar, Putlighar, Amritsar 143201.

Tamil Nadu
A.V.J. Wires Pvt. Ltd., 35, Sembudoss St., Madras 600001.
Chain Link & Wire Netting Ind., 23, Gantz Rd., Madras 600012.
Chouraria Wire Netting Inds., 32, Nainiappa Naicken St., Madras 600008.
Globe Industrial Corpn., 171/173, Nainyappa Naicken St., Madras 600003.
Indian Reinforcing Co., 4, Mount Poonamalee Rd., Madras 600089.
Indian Steel Rolling Mills Ltd., Tiruninarvur 602024.
Indian Wire Products Inds., 104, N. Naicken St., Madras 600003.
Jeetmull Jaichandlall, 171/173, Nainyappa Naicken St., Post Box No. 509, Madras 600003.
Kiran Wire Netting Co., 260, Rasappa Chetty St., Madras 600003.
Madras Wire Products Ltd., 9/6, Madras Avadi Rd., Ambattur, Madras 600053.
Precisa Wire Cloth Co. Pvt. Ltd., 45/1, Athipet, Madras 600058.
Rama Metal Industries, 70-B, Rama Naicken St., Madras 600013.
Shalimar Wires & Inds. Ltd., 8, Kondi Chetty St., Madras 600001.
Swiss Welded Mesh Co. Pvt. Ltd., A-7, Ind. Estate, Madras 600058.
Wirenetting Industries Corpn., 75, Rundalls Rd., Vepery, Madras 600007.

Uttar Pradesh
Arkay Wires Pvt. Ltd., 117/491, Pandunagar, Kanpur 208005.
Hemkunt Steel & Wires Pvt. Ltd., 48, Indl. Area, Site No. IV, Sahibabad, Ghaziabad 201010.

West Bengal
Bengal Sheet Metal Works, 19-B, B.B. Ganguly St., Calcutta 700012.
Bengal Wire Syndicate, 63, Sir Hariram Goenka St., Calcutta 700001.
Bharat Wire Netting Factory, 113, N. Subhas Rd., Calcutta 700001.
Birani & Co., 62/1A, N. Subhas Rd., Calcutta 700001.
Fort William Co. Ltd., 14, N. Subhas Rd., Calcutta 700001.
Hind Wire Craft Ind., 156, J. Bajaj St., Calcutta 700007.
Hind Wire Industries Ltd., P-16, Kalakar St., Calcutta 700007.
Hindustan Wire Products Ltd., 14, N. Subhas Rd., Calcutta 700001.
Hindustan Wires Ltd., 3A, Shakespeare Sarani, Calcutta 700071.
India Commerce & Industries Corpn., 32, Armenian St., Calcutta 700001.
Indian Steel & Wire Products Ltd., 7, Wellesley Place, Calcutta 700001.
Indo-American Electricals Ltd., 21, Old Court House St., Calcutta 700001.
Industrial Metal & Wiremesh (Engg.) Co., 18, R.N. Mukherjee Rd., Calcutta 700001.
International Wirenail Mfg. Co., 196-B, Chittaranjan Ave., Calcutta 700007.
J & K Steel & Inds. Ltd., 7, Council House St., Calcutta 700001.
Jain Wire Netting Stores, 62, N. Subhas Rd., Calcutta 700001.
Jeetmull Jaichandlall, 109, N. Subhas Rd., Calcutta 700001.
Kanji Pannachand Pvt. Ltd., 33, Armenian St., Calcutta 700001.
Karfa & Co., 115, N. Subhas Rd., Calcutta 700001.
Kiran Wirenetting Co., 18, Raja Woodmunt St., Calcutta 700001.
M.S. Industries, P-10, New Howrah Bridge Approach Rd., Calcutta 700001.
Murarka (Overseas) Co., 137, N.S. Rd., Calcutta 700001.
National Rolling & Steel Ropes Ltd., 'Nicco House', 2, Hare St., Calcutta 700001.
Novelty Engg. Works, Brojnath Lahiri Lane, Santragachi 711104, Howrah Dist.
Rajesh Udyog, 4/1, Madan St., Calcutta 700013.
Shalimar Wires & Inds. Ltd., 27A, Camac St., Calcutta 700016.
Sonthalia & Co., 71, Jamunalal Bajaj St., Calcutta 700007.
Standard Metal Co., 101, N. Subhas Rd., Calcutta 700001.
Steel & Wire Products (India), 38, B.K. Paul Ave., Calcutta 700005.
Sterling Products Co., 1/4C, K. Chatterjee Rd., Calcutta 700002.
Sushil Wire Inds., 116, Stephen House, Calcutta 700001.
Thisa (India) Pvt. Ltd., E-2, Gillander House, 8, N. Subhas Rd., Calcutta 700001.
Usha Martin Black (Wire Ropes) Ltd., 14, Princep St., Calcutta 700072.
Wire Crafts Ltd., 8, Lyons Range, Calcutta 700001.

WIRES, CABLES & ACCESSORIES

Andhra Pradesh

Gangappa Cables Ltd., Uppal Rd., Hyderabad 500039.
Mazda Cable Co., 7A, Vengalrao Nagar, Hyderabad 500890.
Minicon Insulated Wires Pvt. Ltd., A-6, Ind. Estate, Sanatnagar, Hyderabad 500018.
Radiant Cables Pvt. Ltd., B1 & 2, Indl. Estate, Sanatnagar, Hyderabad 500018.
Reshma Cable Ind., Lakdikapul, Hyderabad 500004.

Delhi

Aggarwal Cable Works, 3303, Bazar Sitaram, Delhi 110006.
Alankar Cable Inds., Shalimar Indl. Area, Delhi 110033.
Allied Agencies, 1399, Pahari Imli, Jama Masjid, Delhi 110006.
Bharat Cable Mfg. Co., 1051, Bazar Sita Ram, Delhi 110006.
Biren Mfg. & Co., 25, River Apartments, 45, Sham Nath Marg, New Delhi 110007.
Chowdhry Instrumentation, 105/110, Model Basti, New Delhi 110005.
Dawson Electric Inds., Thapar House, A-19, Naraina Indl. Area, Phase II, New Delhi 110028.
Delton Cable Ind. Pvt. Ltd., 'Delton House', 24, Daryaganj, New Delhi 110002.
Diamond Electronic Inds., Plot No. 171A, Lane No. 8, Friends Colony, Ind. Estate, Shahdara, Delhi 110032.
Evershine Electrical Works India, 59, Najafgarh Rd., New Delhi 110015.
Galaxy Power Cables Ltd., A/23, New Shopping Complex, Defence Colony, New Delhi 110024.
Gilton Cables (India), 1792, Rd. 16, Rajgarh Colony, Delhi 110031.
Grandlay Cables, 3/4, Asaf Ali Rd., New Delhi 110002.
Indo Cables (India), Bhagirath Palace, Delhi 110006.
Kavisa Cables, C/33, Kalindi Colony, Maharani Bagh, New Delhi 110065.
Kavcee Electricals, 1854, Bhagirath Palace, Delhi 110006.
Kaytee Cables, 1815, Bhagirath Palace, Chandni Chowk, Delhi 110006.
Lakshmi Cable Co., A/6, Jhilmil Tahirpur Ind. Area, Grand Trunk Rd., Shahdara, Delhi 110032.
Maharaja Cables, 1024, V. & P.O. Mahipalpur, New Delhi 110037.
Mazda Cable Co. (India), Bhagirath Palace, Delhi 110006.
Meryfur Industries, Behind State Bank, Chandni Chowk, Delhi 110006.
Myco Electrical Inds., D-240, Okhla Indl. Area, Phase I, New Delhi 110020.
Netco Cable Inds., 11/1B, Okhla Indl. Estate, Phase II, New Delhi 110020.
Premier Cable Co. Ltd., 14/15-F, Connaught Place, New Delhi 110001.
Promain Cable Inds., 24-25, New Wazirpur Indl. Complex, Delhi 110052.
Siemens India Ltd., B-5, Jangpura, Mathura Rd., New Delhi 110014.
Standard Metal Wires Pvt. Ltd., A-26, Naraina Indl. Area, Phase 1, New Delhi 110028.
Victor Cables Ltd., 6, Comm. Centre, Panchshilla Park, New Delhi 110017.

Gujarat

Aplex Cable Inds., C-10, GIDC, Bilimora 396321.
General Electricals & Mechanical Corpn., Ind. Estate, Vadodara 390007.
Mahendra Electricals Ltd., Kamla Mission Rd., Nadiad 387001.
Nehal Cable Inds., C-3/9, Indl. Estate, Nadiad 387001.
Power Cables Pvt. Ltd., 40, Alkapuri, Vadodara 390001.
Shramik Winding Wires Pvt. Ltd., D-46, Sardar Udyognagar, Ajwa Rd., Vadodara 390001.

Haryana

Hindustan Kokoku Wire Ltd., 12/2, Milestone, Mathura Rd., P.O. Amar Nagar, Faridabad 121003.
Skytone Electricals (India), 43, Ind. Area, Faridabad 121001.

Karnataka

Aluminium Cables & Conductors, A-82, Ind. Estate, Rajajinagar, Bangalore 560044.
Deccan Wires Ltd., Bommanahalli, Bangalore 560029.
Deepak Insulated Cable Corpn., Ltd., 8th Mile, Tumkur Rd., Dasarahalli, Bangalore 562139.
Farcom Systems, Post Box 171, Vasanthnagar, Bangalore 560052.
Flexilink Electronics, Kamadhenu Complex, M.G. Rd., Bangalore 560008.
Mohan Aluminium Pvt. Ltd., P.O. Virgonagar, Bangalore 560049.
Mysore Wire & Metal Ind., 13, IVth Cross, Magadi Rd., Bangalore 560023.

Kerala

Aluminium Ind. Ltd., No. 1, Ceramic Factory Rd., Kundara 691501.
Premier Cable Co. Ltd., Karukutty, Angamally 683572.

Madhya Pradesh

Bhilai Wires Ltd., Indl. Est., Bhilai 490001.
Gwalior Cables & Conductors, Indl. Area, Birlanagar, Gwalior 474004.
Universal Cables Ltd., P.O. Birla Colony, Satna 485005.

Maharashtra

Ajit Wire Ind. Pvt. Ltd., 58, Sir M. Vissanji Rd., Andheri East, Bombay 400059.
All-India Electrical Engg. Co., 199, Princess St., Bombay 400002.
Associated Cables Pvt. Ltd., Shop No. 2, Raote Bldg., 85-A, J.S. Road, Girgaum, Bombay 400004.
B.R. Steel Products Pvt. Ltd., 29-30, Vaswani Mansion, Dinshaw Vachha Rd., Bombay 400020.
Bhandary Metallurgical Corpn. Pvt. Ltd., Bhandary Estate, Sion-Chembur Rd., Kurla East, Bombay 400070.
Bharat Cables Pvt. Ltd., Sadan Wadi, Bhandup, Bombay 400078.
Bharat Insulation Co., Plot No. B-32, Rd. No. 18, Wagle Ind. Estate, Thane 400604.
Brooks Cable Works, 32, Vithaldas Rd., Lohar Chawl, Bombay 400002.
Cable Corpn. of India Ltd., Laxmi Bldg., 6, Ballard Rd., Bombay 400038.
Crompton Greaves Ltd., Kanjur Village, Bombay 400078.
Finolex Cables Pvt. Ltd., Chinchwad, Pune 411019.
Fort Gloster Inds. Ltd. (Cable Dn.), 121/122, Mittal Chambers, Nariman Point, Bombay 400021.
Henley Cable India Ltd., Henley House, Ballard Estate, Bombay 400038.
Hindustan Transmission Products, Shree Niketan, Shiv Sagar Estate, Dr. A. Besant Rd., Bombay 400018.
Markeel Pvt. Ltd., Shreeji Bhavan, Lohar Chawl, Bombay 400002.
Mechno-Plast, 6, Heera Compd., Opp. Navjivan Colony, Chember, Bombay 400074.
Metaplast Inds., C-6, 6A, 13, Ghatkopar Indl. Estate, LBS Mrg., Bombay 400086.
Oriental Power Cables Ltd., Narang House, 34, C.S.M. Mrg., Bombay 400039.
Plasticables Pvt. Ltd., 36, Dalal St., Bombay 400023.
Power Cables Pvt. Ltd., Mahul Village, Bombay 400078.
Record Electricals Pvt. Ltd., 'Record House', 30, Ind. Estate, M. Gandhi Rd., Kandivli (West), Bombay 400067.
Remsons Cable Pvt. Ltd., 88-B, Govt. Indl. Estate, Kandivli (West), Bombay 400067.
Shakti Insulated Wires Pvt. Ltd., 22, Apollo St., Bombay 400023.

Siemens India Ltd., 134-A, Dr. A. Besant Rd., Worli, Bombay 400018.
Special Steels Ltd., Dattapada Rd., Borivli East, Bombay 400066.
Sterlite Cables Ltd., 7, Kirol, Vidyavihar, Bombay 400086.
Sylvex Cable Co. Pvt. Ltd., Saki-Vihar Rd., Bombay 400072.
Todi Ind. Pvt. Ltd., Todi Estates, Lower Parel, Bombay 400013.
Udey Pyrocables Pvt. Ltd., 167, Dr. A. Besant Rd., Worli Naka, Bombay 400018.

Orissa

Hira Cable Works, P. O. Hirakud 768016.

Pondicherry

Trikona Industrials Pvt. Ltd., A-16, Ind. Estate, Thattanchavadi 605009.

Tamil Nadu

Madras Cable Co., G-7, Ambattur Indl. Estate, Madras 600058.
Madras Electrical Conductors Pvt. Ltd., 37, Arcot Rd., Madras 600006.
Omega Cables, 41, Moores Rd., Madras 600006.

Uttar Pradesh

Indian Aluminium Cables Ltd., Ghaziabad 201001.

West Bengal

Asiatic Wires Ltd., 12, Govt. Place (E), Calcutta 700069.
Bright Wires Ltd., 1/A, Vansittart Row, Calcutta 700001.
Calcutta Wire Works, 6, Tiljala Rd., Calcutta 700046.
Electrical Ind. Corpn., 49/1, Gariahat Rd., Calcutta 700019.
Everlite Insulating Ind. Pvt. Ltd., 137, B. Roy Rd. West, Calcutta 700061.
Express Cables Pvt. Ltd., 51, Stephen House, 4, B.B.D. Bagh, Calcutta 700001.
Fort Gloster Ind. Ltd., 31, Chowringhee Rd., Calcutta 700016.
Hind Wire Industries Ltd., P-16, Kalakar St., Calcutta 700007.
Hind Wirecraft Inds., 156, J. Bajaj St., Calcutta 700007.
Hindustan Wires Ltd., 3-A, Shakespeare Sarani, Calcutta 700016.
Indian Cable Co. Ltd., 9, Hare St., Calcutta 700001.
Indo-American Electricals Ltd., 21, Old Court House St., Calcutta 700001.
J. K. Steel & Industries Ltd., Rishra 712248, Hooghly Dist.
M. S. Inds., P-10, New Howrah Bridge Approach Rd., Calcutta 700001.
Much Engg. Pvt. Ltd., 7, Lake Rd., Calcutta 700029.
National Insulated Cable Co. of India Ltd., 2, Hare St., Calcutta 700001.
Novelty Engg. Works, B. Lahira Lane, Santragachi, Howrah 711104.
Novoflex Cable Inds., 3B, Camac St., Calcutta 700016.
Power Cables & Electricals Ltd., 20A, Camac St., Calcutta 700016.
Power Electric Cables Co., 2, G. C. Avenue, Calcutta 700013.
Universal Cables Ltd., 15, India Exchange Place, Calcutta 700001.

WOOD TREATMENT PLANTS

Ascu Hickson Ltd., 7A, Elgin Rd., Calcutta 700020.

WOOD WORKING MACHINERY & SPARES

Hiralal & Co. (Mfg.), 2, Vithaldas Rd., Devkaran Mansion, Bombay 400002.
Janata Machine Tools Ltd., Majiwada, Thane 400601.
Osahan Engg. Works Pvt. Ltd., G.T. Rd., Ramtalai, Amritsar 143005.
Swaran Engg. Works, Lakadganj, Bhandara Rd., Nagpur 440008.

WOOLLEN TEXTILES

Delhi

Premier Woollen Mills, 38, D. L. Ind. Area, Najafgarh Rd., New Delhi 110015.

Gujarat

Dinesh Mills Ltd., P. B. 65, Padra Rd., Vadodara 390001.
Shree Digvijaya Woollen Mills Ltd., Aerodrome Rd., Jamnagar 361001.

Haryana

Raj Woollen Ind., G. Trunk Rd., Panipat 132103.
Shakti Woollen & General Mills, Panipat 132103.

Jammu & Kashmir

Government Spinning Mills, Nowshehra, Srinagar 190001.
Government Woollen Mills, Shirin Baugh, Srinagar 190001.

Karnataka

Binny Ltd., Agraharam Rd., Bangalore 560023.
Karnataka Woollens Ltd., 3rd Flr., Blumoon Blocks, M. G. Rd. Bangalore 560001.

Maharashtra

Ahmed Woollen Mills, Karim Bldg., 56, Mohamedali Rd., Bombay 400003.
Bombay Woollen Mills Pvt. Ltd., Moghal Lane, Bombay 400016.
Castle Mills, Shastri Marg, Thane 400604.
Dani Wooltex Corpn., Ganesh Bhuvan, M.J. Market, Bombay 400002.
Dhruva Woollen Mills Pvt. Ltd., New Dun Mills Comp., Sun Mi Rd., Lower Parel, Bombay 400013.
Gokalchand Rattanchand Woollen Mills Pvt. Ltd., L.B. Shastr Marg, Ghatkopar, Bombay 400086.
Kay Kay Woollen Mills, M. Sunderji Rd., Naupada, Thane 400602.
Kishanchand Spinning Mills, Jolly Bhavan No. 2, New Marin Lines, Bombay 400020.
Modella Woollens Ltd., 4-C, Vulcan Insurance Bldg., V. Narima Rd., Bombay 400020.
Nagpal Woollen Mills No. 3, Atlas Mills Comp., Reay Rd. Bombay 400010.
Raymond Woollen Mills Ltd., J.K. Bldg., N. Morarjee Marg Bombay 400038.
Shree Krishna Woollen Mills Pvt. Ltd., Behind Cemetery, Shastr Mrg., Bombay 400078.
Simplex Woollen Mills, Sadhana Rayon House, Dr. D. Naoro Rd., Bombay 400001.
Wellman (Ind.) Pvt. Ltd., Neville House, Graham Rd., Ballar Estate, Bombay 400038.
Woollen & Textile Ind. Pvt. Ltd., Lake Rd., Bhandup, Bomba 400078.

Punjab

Angora Spinning Mills, Civil Lines, Ludhiana 141001.
Essma Woollen Mills, G.T. Rd., Putlighar, Amritsar 143001.
Fine Spinners Pvt. Ltd., Kashmir Rd., Amritsar 143001.
G.M. Worsted Spinning Mills, G. Trunk Rd., Chheharta 1431
Himalaya Woollen Mills, G. Trunk Rd., Chheharta 143105.
International Woollen Mills, 131, Ind. Area 'A', Ludhiana 1410
Kanpur Spinning Mills, G. Trunk Rd., Amritsar 143001.
M.H. Spinners, Kashmir Rd., Amritsar 143001.
Mahavir Woollen Mills, Ind. Area 'A', Ludhiana 141003.
New Egerton Woollen Mills, Dhariwal 143519.
Oswal Spg. & Wvg. Mills Ltd., Oswal Rd., Ind. Area 'A Ludhiana 141003.
Oswal Woollen Mills Ltd., Miller Ganj, Ludhiana 141003.
Padam Das & Co., Ferozepur Rd., Ludhiana 141001.
Prabhat Woollen Mills, 238, Ind. Area 'A', Ludhiana 14100
Punjab Woollens, G. Trunk Rd., Chheharta 143105.
Supreme Woollen Mills, 424, Ind. Area 'A', Ludhiana 1410
Swadeshi Mfg. Syndicate Pvt. Ltd., Civil Lines, Ludhiana 1410

Rajasthan

Bikaner Woollen Mills, Ind. Area, Bikaner 334001.
Rajasthan Woollen Mills, Gajner Rd., Bikaner 334001.
Rajasthan Worsted Spg. Mills Ltd., K-18, Durga Das Path, Malaviya Marg, C-Scheme, Jaipur 302001.
State Woollen Mills, Bikaner 334001.

Uttar Pradesh

Cawnpore Woollen Mills Ltd., Civil Lines, Kanpur 208001.
General Fibre Dealers Pvt. Ltd., P.B. No. 87, Woollen Mills, Bhadohi 224101.

West Bengal

Bengal National Textile Mills Ltd., 23, Brabourne Rd., Calcutta 700001.
Bharat Woollen Mills Ltd., 11, Esplanade Estate East, Calcutta 700001.
Jayshree Textiles & Ind. Ltd., Rishra 712248. Hooghly Dist.
Kusum Wool & Woollen, 74, Beliaghata Main Rd., Calcutta 700010.
Woolcombers of India Ltd., Duncan House, 31, N. Subhas Rd., Calcutta 700001.

X-RAY MACHINES

(See under Medical Equipment).

ZINC OXIDE

Bansal Metallic Oxides, Poonamallee High Rd., Numbal, Madras 600077.
Kamani Metallic Oxides Pvt. Ltd., Lal Bahadur Shastri Marg, Kurla, Bombay 400070.
Pigments & Chemical Products, 17, G.C. Ave., Calcutta 700013.
Waldies Ltd., A-1, Gillander House, N. Subhas Rd., Calcutta 700001.
Zinc & Chemical Distributors, 16, S. Bhagatsingh Rd., Bombay 400023.
Zinc India Products, 141, Belgola Indl. Area, K.S.R. Rd., Metagalli, Mysore 570016.

ZIP FASTENERS

Apollo Chain Zips Pvt. Ltd., D-3 & D-12, Ind. Estate, Moula Ali, Secunderabad 500040.
Apollo Zipper Co. Pvt. Ltd., 20, British Indian St., Calcutta 700069.

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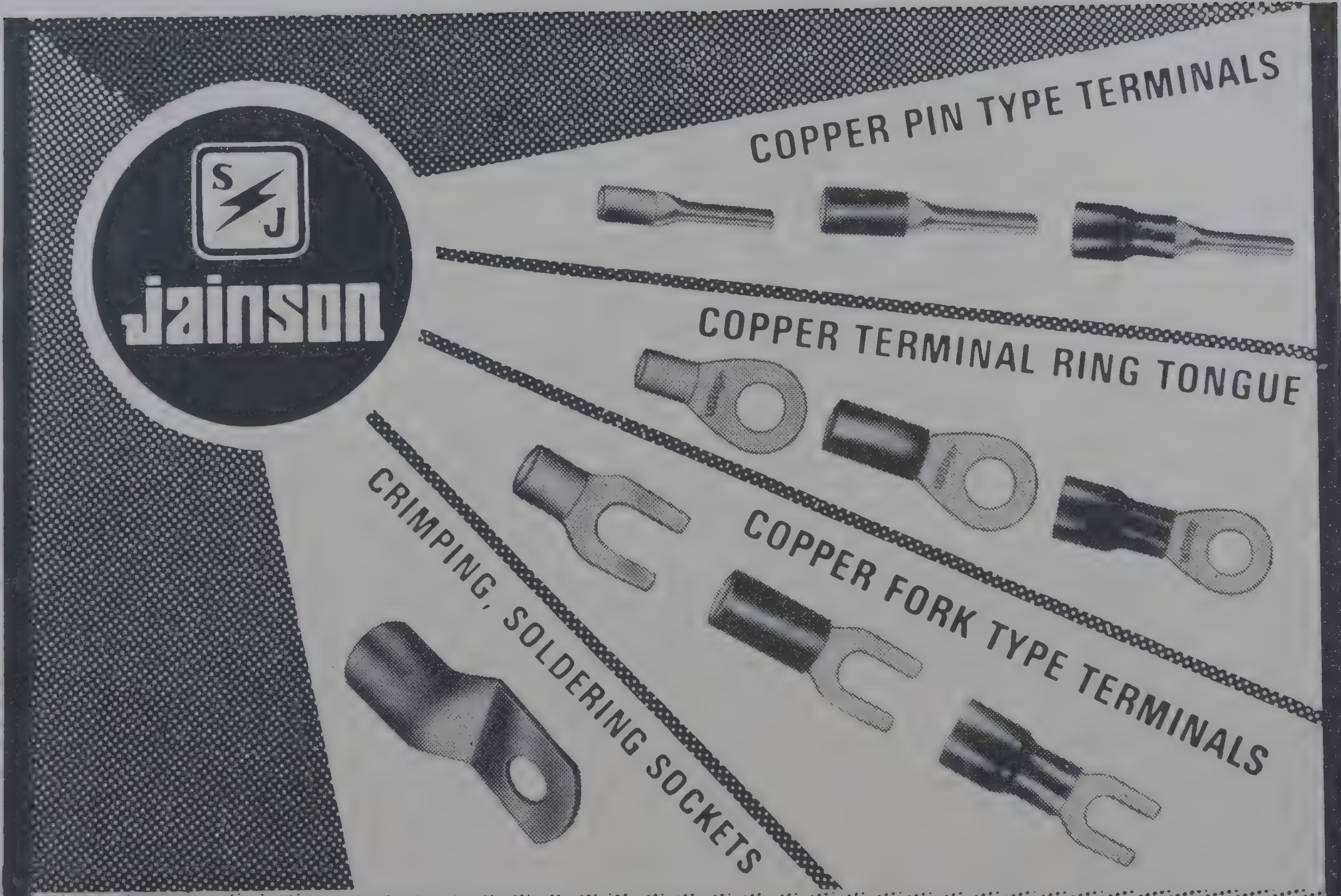
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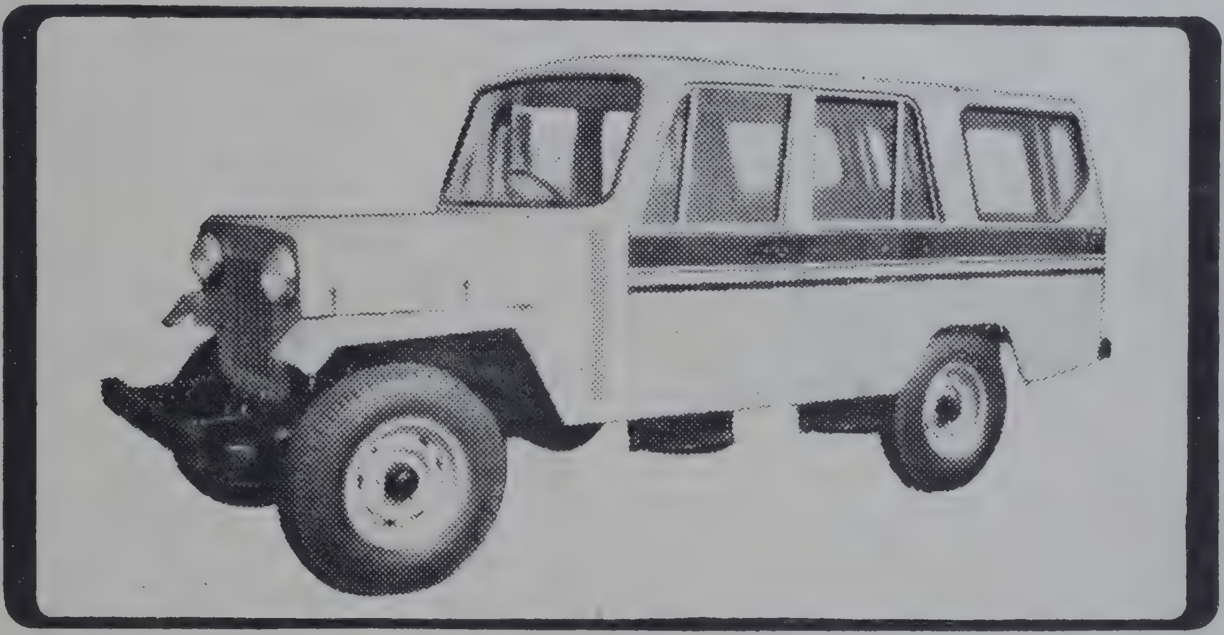

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Popular Motor Car Co., 3, Mathew Rd., Bombay 400004.

Raj Kumar Khanna & Son, 11, Parekh Mkt., Kennedy Bridge, Bombay 400004.

S. Patel & Co., D-16, Everest Bldg., Tardeo Rd., Bombay 400034.

Sah & Sanghi, Giri Kunj, 11-C, N. S. Patkar Marg, Bombay 400007.

Sethi Auto Spares, 428, Raval Bldg., No.1, Lamington Rd., Bombay 400007.

Shree Krishna Auto & General Suppliers, 5, Africa House, Topiwala Lane, Lamington Rd., Bombay 400007.

Standard Garage, Modi Chambers, Bombay 400004.

Unity Auto Inds., Rajabahadur Bansilal Bldg., 64D, J. Shanker Sheth Mrg., Bombay 400004.

Vijay Commercial Corpn., Rajabahadur Bansilal Bldg., Girgaum Rd., Bombay 400004.

Vora Bros., Fateh Manzil, Nr. Opera House, Bombay 400004.

Punjab

Allied Trading Corpn. Nehru Garden Rd. Jullundur City 144001.

British Motor Car Co. Pvt. Ltd., G.T. Rd., Jullundur City 144001.

Jullundur Motor Agency, Nehru Garden Rd., Jullundur City 144001.

Narankari Auto Agency, Outside Gandhi Gate, Amritsar 143001.

National Corpn. Pvt. Ltd., Nehru Garden Rd., Jullundur 144001.

Ved & Co. (Ludhiana), Cinema Rd., Ludhiana 141001.

Tamil Nadu

Anand Automobiles, 24, Gen. Patters Rd., Mount Rd., Madras 600002.

Auto Sales Co., 42, Gen. Patters Rd., Madras 600002.

Bharat Motors, 35, Mount Rd., Madras 600002.

Bharat Tractor Agencies, No. 159-B, Dr. Nanjappa Rd., Coimbatore 641018.

Bombay Motor House, 28, Gen. Patters Rd., Madras 600002.

Central Motors, 9, Gen. Patters Rd., Madras 600002.

Coimbatore Automobiles, 137-F, Dr. Nanjappa Rd., Coimbatore 641018.

Em Em Automobiles, No. 17/29, Mill Rd., Coimbatore 641001

George Oakes Ltd., 32-A, Greames Rd., Madras 600006.

Indian Motor Parts & Accessories Ltd., 785, Mount Rd., Madras 600002.

Jai Motors, 10 & 12, Begum Sahib 2nd Lane, Madras 600002.

K. C. Auto Parts, No. 201-B, Dr. Nanjappa Rd., Coimbatore 641018.

Pandyan Automobiles (Pvt.) Ltd., By Pass Rd., Madurai 625016.

Popular Automobile Accessories, No. 138, Dr. Nanjappa Rd., Coimbatore 641018.

Sancheti Motors Pvt. Ltd., 144, Greames Rd., Madras 600006.

Southern Auto Parts, No. 10/196-D, Dr. Nanjappa Rd., Coimbatore 641018.

Stanes Motors (S.I.) Ltd., No.497, Trichy Rd., Coimbatore 641018

T. V. Sundaram Iyengar & Sons Pvt. Ltd., Mettupalayam Rd., Coimbatore 641011.

Uttar Pradesh

Aggarwal Bros., The Mall, Kanpur 208001.

Byramjee Framjee & Co., The Mall, Kanpur 208001.

Jullundur Motor Agency (Delhi) Ltd., 63/3, The Mall, Kanpur 208004.

Kanpur Auto Centre, The Mall, Kanpur 208001.

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United Motors, 3, Vidhan Sabha Marg, Lucknow 226001.

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Auto Parts Co., 11/1, Sooterkin St., Calcutta 700072.

Bengal Auto Distributors, 25-B, Park St., Calcutta 700016.

Bharat Motors, 6, Mangoe Lane, Calcutta 700001.

East India Automobiles, P-24, Mission Row Ext., Calcutta 700072.

Howrah Motor Accessories Agency Pvt. Ltd., 128, Hazra Rd., Calcutta 700026.

Howrah Motor Co. Ltd., 16, R. N. Mookherjee Rd., Calcutta 700069.

India Motor Parts & Accessories Ltd., 13, Camac St., Calcutta 700017

Makin Bros., 5, A. Mukherjee Rd., Calcutta 700020.

Metal Specialities Pvt. Ltd., 6/1, Saklat Place, Calcutta 700013.

National Automobiles, 20, British India St., Calcutta 700069.

Oriental Motor Accessories Agency Pvt. Ltd., 28, Chittaranjan Ave. Calcutta 700072.

S.P. Singh & Co., 62, G. Chandra Ave., 700072.

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Capital Machinery Co., 75, Shradhanand Marg, Delhi 110006.

Central Bearing Corpn., 2423, Shradhanand Marg, Delhi 110006.

H.M. Doyal & Co., 55, G.B. Rd., Delhi 110006.

Madan Lal & Co., 5336, Sadar Thana Rd., Delhi 110006.

Satish Bearing House, 641, Shradhanand Marg, 77, G.B. Rd., Delhi 110006.

Talwar Bearing Co., 1/633, Zorawar Singh Marg, Delhi 110006.

Gujarat

Kamal Engineering Co., 21, Vijay Plot, Gondal Rd., Rajkot 360002.

Packwell Corpn., Sheth C.G. Bungalow, Lal Darwaja, Ahmedabad 380002.

Sharad Bros. & Co., Parasram Chambers, Relief Rd., Ahmedabad 380002.

Karnataka

Ashoka Sales Corpn., 94, S.J. Park Rd., Bangalore 560002.

Auto Bearing Co., D-28, 6th Main Rd., Gandhi Nagar, Bangalore 560009.

Bantwal Bros., 48, Journalist Colony, Bangalore 560002.

Belt-O-Bearings, 24, S.J. Park Rd., Bangalore 560002.

Chitlangia Enterprise, 63, J. C. Rd., Bangalore 560002.

Karnataka Ball Bearing Corpn. Ltd., 302, Devatha Plaza, Residency Rd., Bangalore 560025.

Milak & Co., 73, J.C. Rd., Bangalore 560002.

Rollman Trading Co., 17-1A, Ali Asker Rd., Bangalore 560002.

Kerala

United Bearing Co., Pulikal Bldg., M. G. Rd., Ernakulam, Cochin 682011.

Maharashtra

Active Traders, 109/111, Nagdevi St., Bombay 400003.

Advance Bearing Corpn., 101, Nagdevi X Lane, Bombay 400003.

Amco Bearing Corpn., 139A, Abdul Rehman St., Bombay 400003.

Amit Sales Corpn., 20, Ashok Chamber, 56, Bharuch St., Bombay 400009.

Anil Bearing Stores, 163, Narayan Dhuru St., Bombay 400003

Anupam Marketing Pvt. Ltd., 77/83, Nagdevi St., Bombay 400003.

Ashok Trading Corpn., 63/69, Nagdevi Cross Lane, Bombay 400003.

Associated Industrial Traders, 416, Commerce House, N. Master Rd., Bombay 400023.

Associated Trade Impex, 25, Bibijan St., Bombay 400003.

B. Kolben (India), 43, Dhanji St., Bombay 400003.

Ball Bearing & Machinery Corpn., 172-174, Nagdevi St., Bombay 400003.

Ball Bearing & Tools Traders, 357, Shukrawarpeth, Pune 411002.

Ball & Roller Bearing Co., G.P.O. Box No. 1104, Bombay 400001.

Bhagirath Trading Co., 107, Abdul Rehman St., Bombay 400003.

Bhagwan Bearings & Mill Gin Corpn., 94, Chakla St., 3rd Flr., Bombay 400003.

Bharat Trading Co., 69, Nagdevi X Lane, Bombay 400003.

Bombay Bearing Centre, 39, Nagdevi St., Bombay 400003.

Chunilal Prabhudas & Co. (Bombay) Pvt. Ltd., 55/57, Nagdevi X Lane, Bombay 400003.

Commercial Trading Corpn., 39, Sarang St., Bombay 400003.

Convest Corpn., 110, N. Dhuru St., Bombay 400003.

Desai Brothers, 391, V.P. Rd., Badamwadi, Bombay 400004.

Dhirajlal & Co., 15, New Queen's Rd., Bombay 400004.

Dhirajlal Morarji, 37-A, Sarang St., Bombay 400003.

Dhiren Engg. Stores, 51-53, Nagdevi X Lane, Bombay 400003.

Doshi Bros., 11, Narayan Dhuru X Lane, Bombay 400003.

Eastern Engg. Co., 278, Dr. D.N. Rd., Bombay 400001.

Enaco Bearing Corpn., 25, Bibijan St., Bombay 400003.

Everest Bearing Corpn., 91, Nagdevi X Lane, Bombay 400003.

Hemani Bros., 30, Princess St., Bombay 400002.

Industrial Sales Corpn., 201, Nagdevi St., Bombay 400003.

J. Industrial Corpn., 17, Nagdevi Crosslane, Bombay 400003.

K. K. Poonja & Sons, 19/21, Dalal St., Bombay 400023.

Laxmi Engg. Co., 72/80, Nagdevi Crosslane, Bombay 400003.

Machine Tools & Implements, 93/95, N. Dhuru St., Bombay 400003.

Mahavir Trading Corpn., 137A, Nagdevi St., Bombay 400003.

Masrani Mill Gin Stores, 46, Nagdevi Cross Lane, Bombay 400003.

Mehta Agencies, 107, Marine Chambers, 43, New Marine Lines, Bombay 400020.

NKS Bearing Co., 145, N. Dhuru St., Bombay 400003.

Navnit Trading Corpn., 163, Narayan Dhuru St., Bombay 400003.

Nitesn Enterprise, 91-93, Girgaum Rd., Bombay 400004.

Pankaj Mill Gin Corpn., 92, Nagdevi St., Bombay 400003.

Pradeep Trading Corpn., 43, Nagdevi Crosslane, Bombay 400003.

Purushottam Somabhai & Co., 36, Sarang St., Bombay 400003.

Radiant Bearing Co., 212, Yusuf Meherali Rd., Bombay 400003.

Raj Tools Corpn., 50, Bibijan St., Bombay 400003.

Rajesh Trading Corpn. 55/57, Nagdevi X Lane, Bombay 400003.

Rajkumar & Co., 157/159, N. Dhuru St., Bombay 400003.

Rajnikant & Co., 19, Bibijan St., Bombay 400003.

Ramesh Trading Co., 51-53, Nagdevi Crosslane, Bombay 400003.

Roller Bearing Co., 7, Crescent Chambers, Tamarind Lane, Bombay 400023.

S. Mohanlal & Co., Tawawala Bldg., 34, Pathakwadi, Bombay 400002.

Sanghvi Bearing Corpn., 155, N. Dhuru St., Bombay 400003.

Saroj Enterprises, 15, Mandvi Chambers, 184, Samuel St., Bombay 400009.

Shagun Traders, 77/83, Nagdevi St., Bombay 400003.

Shah Bearing Corpn., 216, Kalbadevi Rd. Bombay 400002.

Shah Bros., 524, V. Patel Rd., Bombay 400004.

Shah Engineering Enterprise, 4, Bibijan St., Bombay 400003.

Swastik Sales Corpn., 95/97, Bhandari St., Bombay 400003.

Vijay Bearing Co., 155, N. Dhuru St., Bombay 400003.

Vinod Trading Co., 8, Kala Bhavan, 3, Mathew Rd., Bombay 400004.

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Radiant Bearing Co.. 62. Thambu Chetty St.. Madras 600001.
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Uttar Pradesh

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Associated Bearing Enterprises. 27/2D. Strand Rd.. Calcutta 700001.
Atlas Bearing Corpn.. 5/1. Clive Row. Calcutta 700001 .
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Bearing Sales Corpn.. 11. Clive Row. Calcutta 700001.
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Bearing Supply Syndicate, 71-A, Netaji Subhash Rd., Calcutta 700001.
Cal-Trade. 91. N. Subhas Rd., Calcutta 700001.
Central Trading Co., 137. Canning St.. Calcutta 700001.
Commercial Enterprises. 10. BRBB Rd.. Calcutta 700001.
General Bearing & Engg. Co.. 10. Canning St.. Calcutta 700001.
Indian Ball Bearing Stores. 34. Strand Rd.. Calcutta 700001.
Industrial Bearing & Stores Centre. 138. Canning St.. Calcutta 700001.
International Enterprises, 22, Canning St., Room No. 44, Calcutta 700001.
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Kothari Bros.. 25. Strand Rd.. 1st Flr.. Calcutta 700001
Mill Stores & Bearing Co.. 10. BRBB Rd.. Calcutta 700001
Nandlal Inderchand Pvt. Ltd.. 10. BRBB Rd.. Calcutta 700001.
Norfolk Asea Traders. 10. Canning St.. Calcutta 700001.
Onkar Bearing Co., 138, BRBB Rd., Calcutta 700001
Overseas Bearing Agency, 37, BRBB Rd., Calcutta 700001.
Phoenix Trading Corpn., Room 408, Marshall House. 25. Strand Rd., Calcutta 700001.
Sanjay Enterprises. 33. BRBB Rd.. Calcutta 700001
Shriudyog Mktg. Pvt. Ltd.. 3A. Shakespeare Sarani. Calcutta 700071.
Sikkim Commercial Corpn.. 138. Canning St.. Calcutta 700001.
Trade International. 77. Netaji Subhas Rd.. Calcutta 700001.
United Supply Agency Pvt. Ltd.. 38. Strand Rd.. Calcutta 700001
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Arun (India). 152. Nagdevi St.. Bombay 400003.
Auto Spares (India), Purshottam Bldg., Opp. Opera House, Bombay 400004.
Chetan Trading Co.. 65. Sarang St.. Bombay 400003.
Diwan Bros.. 57. Nagdevi St.. Bombay 400003
Electro-Steel Engg. Co.. Swadeshi Mkt.. 2nd Flr.. Kalbadevi Rd.. Bombay 400002.
Express Indl. Services Pvt. Ltd., 14th Flr.. Mittal Tower. N. Point. Bombay 400021.
Gemini Corpn.. 99. Surat St.. Bombay 400009
Godberg India Pvt. Ltd.. 348. V. P. Road. Behind Imperial Cinema. Bombay 400004.
Greentose Pvt. Ltd.. 24. Dalal St.. Bombay 400023
H. M. Commissariat & Co.. 7. Horniman Circle. Bombay 400023.
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Kaybee & Co., 526, Arun Chambers, Tardeo, Bombay 400034.
Motilal Kaliandas & Co., 80, Nagdevi St., Bombay 400003.
N. Mohanlal & Co., 124, Nagdevi St., Bombay 400003.
P. Ratilal & Co., 43, Dhanji St., Bombay 400003.
Paradise Trading Corpn., 4A, Ali Chambers, Homi Mody Cross St. No. 2, Bombay 400023.
Pierce Leslie India Ltd., Race Course Rd., Coimbatore 641018.
Sanjay Traders, 407, Sala House, 279, Narsi Natha St., Bombay 400009.
Sokeb Corpn., 39, Nagdevi St., Bombay 400003.
T. Brothers Jawadwalla, 189, Mutton St., Bombay 400003.
Tushar Enterprises, 116, Nagdevi St., Bombay 400003.
Upper India Trading Co. Pvt. Ltd., 424, Lamington Rd., Bombay 400004.
Vikram & Co., 258, Nagdevi St., Bombay 400003.

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Ajantha Hardware Stores, 41, Sembudoss St., Madras 600001.
Ansons Corpn., 40/42, Nagdevi St., Bombay 400003.
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Indo-Foreign Hardware Stores, 193, Nagdevi St., Bombay 400003.
Jayesh Trading Co., 86, Durgadevi St., Kumbharwada, Bombay 400004.
Kantilal & Sons, 150, N. Dhuru St., Bombay 400003.
M. A. Bros., 79, Nagdevi St., Bombay 400003.
M. Ochhavlul & Co., 51, Bibijan St., Bombay 400003.
Maharashtra Hardware Stores, 94, Sarang St., Bombay 400003.
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Mohanlal & Co., 144, Diamond Bldg., Lohar Chawl, 33, Pathakwadi, Bombay 400002.
Nagardas & Co., 65, Durgadevi St., Kumbharwada, Bombay 400004.
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Durga Agencies, Durga Estate, N. H. No. 8, Chhani Rd., Vadodara 390002.

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Jain Electricals, 21, Veerappan St., Madras 600001.

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Sopher & Co., 11, Bank St., Bombay 400023.
Super Electrical Insulating Co., 289-91, Nagdevi St., Bombay 400003.
Suresh Industries (Pvt.) Ltd., Atlas Mills Compound, Reay Rd., Bombay 400010.
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Venus Electrical Trading Co., 30, Jay Mahal Estate, 20/48, Lohar Chawl, Bombay 400002.
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Parco, 16/B, Connaught Place, New Delhi 110001.

Karnataka

Associated Electronic & Electrical Ind., 1, Church St., Bangalore 560001.

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Santhi Enterprises, 35-470/4, M.G. Rd., Cochin 682016.

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Asian Electric Services, 84, Imamwada Rd., Bombay 400009.
Associated Trdg. Corpn., Western India House, Sir P. Mehta Rd., Bombay 400001.
Bombay Electronics Co. Pvt. Ltd., 381, Dr. D. Naoroji Rd., Bombay 400001.
Brisk Sales Corpn., 5, Homi Mody St., Bombay 400023.
Cycl-O-Incorporated, 54, Annapurna Ind. Estate, 46, Tilak Rd., Ghatkopar (East), Bombay 400077.
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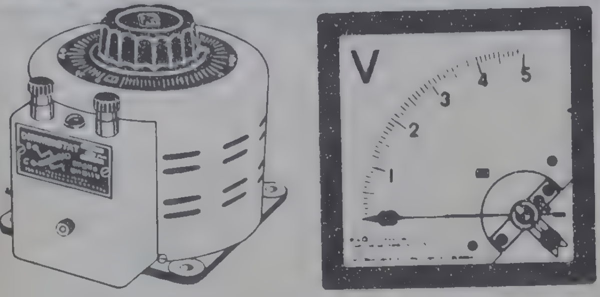

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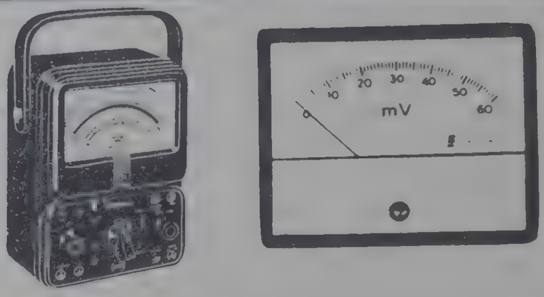

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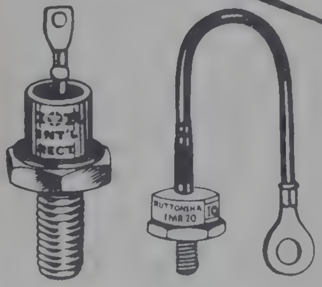

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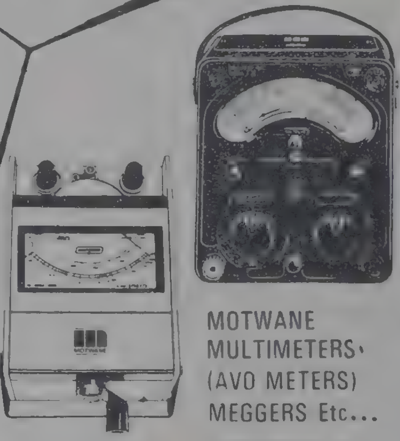

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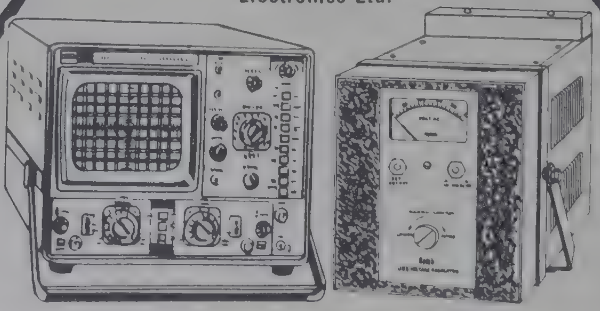

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Bombay Tools & Hardware Mart, 123, Narayan Dhuru St., Bombay 400003.
Bombay Tools Supplying Agency, 50, Nagdevi Cross Lane, Bombay 400003.
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Raj Tools Corpn., 50, Bibijan St., Bombay 400003.
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Super Tools & Bearing Stores, 126/128, Nagdevi St., Bombay 400003.
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Eastern Arts Corpn., 11/B-4, A. Ali Rd., New Delhi 110002.
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Indo Craft Exports, 23, Darya Ganj, New Delhi 110002.
Ivory Mart, 22-F, Connaught Place, New Delhi 110001.

J. R. Sharma & Co. Pvt. Ltd., 3622, N. Subhas Mrg., Delhi 110006.
Nava Bharat Enterprises Pvt. Ltd., Surya Kiran Bldg., K. Gandhi Mrg., New Delhi 110001.
Oriental Trading Society, F7, Jangpura Extn., New Delhi 110014.
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R. D. Ramnath Co., Jama Masjid, Delhi 110006.
R. L. Khanna & Co. (Delhi), Khanna House, 15, Jangpura Ext., New Delhi 110014.
Reliance International Corpn. Pvt. Ltd., 4/2-B, Jawala Mansion, A. Ali Rd., New Delhi 110002.
S. Nath Kakar & Son, 41, Hanuman Rd., New Delhi 110001.
Seven Seas Exporters, 131, Sadar Bazar, Delhi 110006.
Wellworth Trading Corpn., 82, Joshi Rd., Karol Bagh, New Delhi 110005.

Maharashtra

Bharat Industries Corpn., Janmabhoomi Chambers, Fort St., Bombay 400001.
Deepak Overseas Pvt. Ltd., 74-A, Nariman Bhavan, N. Point, Bombay 400021.
Kairali, Nirmal, Nariman Point, Bombay 400021.
Murlidhar Sons, 7, Smeeta Nivas, Chira Bazar, Bombay 400002.
Narang Overseas Pvt. Ltd., Beach View Bldg., 93, B. Desai Rd., Bombay 400026.

Uttar Pradesh

Indiacraft Emporium, P.B. 128, Dehra Dun 248001.
Jandaood & Co., Bhatti St., Moradabad 244001.
National Import & Export Co., Bombay Bazar, P.B. 28, Meerut 250001.
Nayar & Sons, P.B. 103, Deputy Ganj, Moradabad 244001.
Wajidson Pvt. Ltd., Qasre-Wajid, P.B. 79, Moradabad 244001.

HARDWARE TOOLS & MACHINERY

Delhi

Delhi Hardware & Metal Stores, 822, Nai Sarak, Delhi 110006.
Delhi Hardware Store, 1917, Sirkiwalan, Delhi 110006.
Hardware Co. Ltd., 3620, Chawri Bazar, Delhi 110006.
Hardware Traders, 62, Shradhanand Mrg., Delhi 110006.
Milhard & Co., Hauz Qazi, Delhi 110006.
Tiger Hardware & Tools Ltd., LB2, Ansal Bhawan, K. Gandhi Mrg., New Delhi 110001.
Vinod Metal Industries, 29, Chawri Bazar, Delhi 110006.

Karnataka

Mahboobali Md. Yakub & Sons, Gulbarga 585101.
Mangilal & Co., United Bldg., J.C. Rd., Bangalore 560002.
Town Hardware Stores, 5, Godown St., Bangalore 560002.

Kerala

C. A. Galiakotwala & Co. Pvt. Ltd., Bazar Rd., Cochin 682002.
Chakiat Bros., Ernakulam 682011.
General Hardware Stores, Mullakkal, Alleppey 688001.
Kerala Trading Corpn., Bazar Rd., Cochin 682002.
South India Corpn. Pvt. Ltd., Bazar Rd., Cochin 682002.

Maharashtra

Abdullabhai Faizullabhai Pvt. Ltd., 60-62, Sarang St., Bombay 400003.
Ashok Industrial Traders, 50, Bibijan St., Bombay 400003.
B. M. Abdeally & Co., 127, Sarang St., Bombay 400003.
Bharat Engg. Stores, 31, Nagdevi Cross Lane, Bombay 400003.
Bombay Hardware Co., 91, Kika St., Bombay 400004.
Bombay Hardware Traders, 79, N. Dhuru St., Bombay 400003.
Commercial Supplying Agency, 211, Nagdevi St., Bombay 400003.
Conet Corporation, 73, Nagdevi Lane, Bombay 400003.
Dawoodi Hardware Mart, 84, Bhajipala St., Bombay 400003.
Hardware & Mill Stores, 172, Nagdevi St., Bombay 400003.
Hardware Trading Syndicate, 51, Bibijan St., Bombay 400003.
Mutual Traders, 155, N. Dhuru St., Bombay 400003.
Raj Tools Corpn., 50, Bibijan St., Bombay 400003.
Reuben Enterprises, 82, Narayan Dhuru St., Bombay 400003.
Shah Trading Co., 163, Narayan Dhuru St., Bombay 400003.
Tools Supplying Agency, 83, Nagdevi Crosslane, Bombay 400003.

Tamil Nadu

A. M. Hassanally Co., 34, Linghi Chetty St., Madras 600001.
Asia Corporation, Mill Rd., Coimbatore 641001.
Bhagat & Co., S. A., 26, P. Maistry St., Madras 600001.
Bombay Trading Agency, 22, E. Chetty St., Madras 600001.
India Co. Private Ltd., 161, Union High School Rd., Coimbatore 641012.
Indian Commercial Corpn., 6, Shanmugam Chettiar Rd., Coimbatore 641002.
Indian Hardware Stores, 73, Sembudoss St., Madras 600001.
Indian Overseas Trdg. Corpn., 295, Power House Rd., Coimbatore 641012.
Lehri Bros., 17, Sembudoss St., Madras 600001.
Madras General Supply Corpn., 11, Singanna Naick St., Madras 600001.
Mehta Doshi & Co., 334, T. Chetty St., Madras 600001.
S. K. Electricals, 7, Govindappa Naick St., Madras 600001.
South India Corpn. Pvt. Ltd., 50, Race Course Rd., Coimbatore 641018.

West Bengal

Atlas Industrial Stores, 89, Netaji Subhas Rd., Calcutta 700001.
Calcutta Hardware Store, 110/1, Amherst St., Calcutta 700009.
Dominion Hardware Stores, 40, Strand Rd., Calcutta 700001.
Hardware Mart, 159, N. Subhas Rd., Calcutta 700001.
Hardware Syndicate Pvt. Ltd., 113B, Manohardas Chowk, Calcutta 700007.
Jainsons & Co., 56/1, BRBB Rd., Calcutta 700001.
P. B. Shah & Co. Pvt. Ltd., 75, N. Subhas Rd., Calcutta 700001.
S. Natraj & Co., 67-B, Netaji Subhas Rd., Calcutta 700001.
Varieties Hardware Stores, 71/A, N. Subhas Rd., Calcutta 700001.

HYDRAULIC EQUIPMENT

Aeicorp Pvt. Ltd., 10, Lall Bazar St., Calcutta 700001.
C. Bole & Co., 61, N. Dhuru St., Bombay 400003.
Diaphragms Ind., 46/C, Chowringhee, Calcutta 700016.
Drewet Chowna & Co., 123, N. Master Rd., Bombay 400023.
F. Pestonji & Co., 94, Nagdevi St., Bombay 400003.
Giriraj Agarwala Agencies, 1/1, Meredith St., Calcutta 700013.
Hydraulics & Pneumatics, 310/311, Linghi Chetty St., Madras 600001.
Industrial Hydraulics, 76, Mun. Ind. Estate, Channel Rd., Worli, Bombay 400018.
J. Rosales Pvt. Ltd., Venkatesh Chambers, Prescot Rd., Bombay 400001.
Jainsons Overseas, 26, World Trade Centre, Cuffe Parade, Bombay 400005.
Kafaz Engg. Co., 191, Nagdevi St., Bombay 400003.
Maneklal & Sons, 115, N. Dhuru St., Bombay 400003.
Mangla Engg. Corpn., 229, Ajmeri Gate, Delhi 110006.
Mehta Doshi & Co., 334, Thambu Chetty St., Madras 600001.
R. B. Engg. Pvt. Ltd., Army & Navy Bldg., 3rd Flr., M. Gandhi Rd., Bombay 400023.
Rising Sun Trading Co., 20/1, S. J. Park Rd., Bangalore 560002.
Shantilal C. Mehta, 45, K. Munshi Marg, Sagar Vihar, Chowpatty, Bombay 400007.

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Asia Marine Insulation, 44, Anant Deep Chambers, 273/77, Bhat Bazar, Bombay 400009.

Bombay Insulated Cables & Wires Co., 74, Podar Chambers, S. A. Brelvi Rd., Bombay 400001.

British Electric Insulating Co. Ltd., 33, Dr. V. B. Gandhi Mrg., Bombay 400001.

Chimanlal Shah & Co., 3-D, Mangaldas Rd., Bombay 400002.

Earthfield Products (Bombay), New Excelsior Bldg., 6th Flr., A. K. Naik Mrg., Bombay 400001.

Exelite Insulations Pvt. Ltd., 301, India Printing House, 42, G. D. Ambekar Mrg., Bombay 400031

Fibre Group Corpn., 377/B, J. Shanker Sheth Rd., Girgaum, Bombay 400004.

G. K. Electricals, 48, Krishnappa Naicken Agraharam St., Madras 600001.

G. R. Traders, 63, Kitchen Garden Lane, Mangaldas Rd., Bombay 400002.

Hari Om Vidyut Udyog, Sardargriha, Lohar Chawl, Bombay 400002.

Heatex Products Pvt. Ltd., 11, Bank St., Bombay 400001.

Hemant Electricals, 34, Nagdevi St., Bombay 400003.

Hills Engg. & Commercial Pvt. Ltd., 4-3-13, Rashtrapati Rd., Secunderabad 500003

Industrial Electrical Engg. Co., 10, Hamam St., Bombay 400001.

Industrial Engg. & Insulations Co., 26, Davidson St., Madras 600001

Insulation House, 123, B. V. K. Iyengar Rd., Bangalore 560053.

Insulation House, Kitab Mahal, Dr. D. Naoroji Rd., Bombay 400001.

Jain Sales Corpn., 3980A, Chawri Bazar, Delhi 110006.

Jhaveri Thanawala Pvt. Ltd., 47, Tamarind Lane, Bombay 400023.

Newkem Products Corpn., Harganga Mahal, Khodadad Circle, Bombay 400014.

Parekh Bros. (Madras), 22, Errabalu Chetty St., Madras 600001.

Pravin Dhudalal & Co., 166-72, Lohar Chawl, Bombay 400002.

Southern Insulations, 169/14. Broadway, Madras 600001.

Suresh Electric Corpn., 80-90, Umrigar Bldg., Lohar Chawl, Bombay 400002.

Swati Trading Co., Noble Chambers, 28/A, Parsi Bazar St., Bombay 400001.

Thermo Insulation, Ghaswala Bldg., 2nd Flr., 8-12, Sir M. V. Rd., Andheri East, Bombay 400069.

Vijay Commercial House, 190, Princess St., Bombay 400002.

IRON & STEEL

Agarwal Engg. Corpn., 402/A, Steel Chambers, 58/B, Broach St., Carnac Bunder, Bombay 400009.

Bharat Tube Corpn., 90, Bhajipala Lane, Tavawala Bldg., Bombay 400003.

C. B. Steel Industries, 84A, Broach St., Bombay 400009.

C. Prabhudas & Co., 251, Sant Tukaram Rd., Bombay 400009.

Chandrakant & Co., 52, Baroda St., Iron Mkt., Carnac Bunder, Bombay 400009.

Commercial Steel Corpn., 8, Baroda St., Bombay 400009.

Desai Industrial Corpn., 176, A.B.R. St., Bombay 400003.

Doshi Bros., 306, Yogeshwar, 135/137, Kazi Syed St., Bombay 400003.

Fairdeal Enterprise Corpn., Mohatta Mkt., Ist Floor, Room No.9, Palton Rd., Bombay 400001.

Jivani Steels, Nr. Devi Dayal, 4th Lane, Darukhana, Bombay 400010.

K. Rajesh & Co., 249, Sant Tukaram Rd., Bombay 400009.

Liberty Iron & Steel Traders, 206, Steel Centre, Iron Mkt., Bombay 400009.

Metropolitan Traders, 210, Loha Bhavan, P. D'Mello Rd., Bombay 400009.

Mona Steels, 26, Magazine St., Darukhana, Bombay 400010.

Nandlal Bhuta & Sons, 88, Yusuf Meheralli Rd., Bombay 400009.

R. V. Traders, 86, Sutar Chawl, Bombay 400002.

Shah Sales Corpn., 45, Janjikar St., Bombay 400003.

Shree Krishna Iron & Steel Co., 23-A, N. Subhas Rd., 8th Flr., Calcutta 700001.

Soorajmull Baijnath, 21-22, Loha Bhavan, P. D'Mello Rd., Bombay 400009.

Steel Sales Corpn., 60, Sembudoss St., Madras 600001.

Steel Udyog, 1/39, Sembudoss St., Madras 600001.

Triveni Iron & Steel Industries, 18, Steel Yard, Iron Mkt., Bombay 400009.

Unique Steel Sales, 32, Steelyard House, Sant Tukaram Rd., Iron Market, Bombay 400009.

United Mill Store (India), 404, Steel Centre, Iron Mkt., Bombay 400009.

Virgo Marketing Pvt. Ltd., 507, Rohit House, 3, Tolstoy Mrg., New Delhi 110001.

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Gazdar Pvt. Ltd., Taj Mahal Hotel, Bombay 400039.

Ghanasingh Jewellers, 422/433, 'Panchratna', Opera House, Bombay 400004.

Girdharilal & Sons, Con. Circus, New Delhi 110001.

Hajare & Bros., Y. A., 1st Pinjarapole Lane, Bombay 400004.

Jhaveri Bros. & Co. Pvt. Ltd., 345, A. Rehman St., Bombay 400003.

K. Wadia & Co., 324, Grant Rd., Bombay 400007.

Kerala Jewellers, Ranganathan St., T. Nagar, Madras 600017.

L.K.S. Jewellers, 138, N. S. C. Bose Rd., Madras 600001.

London Star Diamond Co. India Pvt. Ltd., Prasad Chambers, 16th Flr., Near Roxy Cinema, Bombay 400004.

M. P. Jewellers, 1, Vivekananda Rd., Calcutta 700007.

Mangaldas Tribhovandas Bhimji & Sons, 3, Dharam Palace, Hughes Rd., Bombay 400007.

Mohan Jewellery, 142, Rovapettah High Rd., Mylapore, Madras 600004.

Nathella Sampathu Chetty & Son, 177, N. S. C. Bose Rd., Madras 600001.

National Jewellers, 7/9, 3rd Agiary Lane, Dhanji St., Bombay 400003.

P.C. Chandra & Sons, 127/1A, B.B. Ganguly St., Calcutta 700012.

Parson & Co., 16/C, Ashutosh Mukherji Rd., Calcutta 700001.

Popley & Sons, 56/57, Panchratna, Opera House, Bombay 400004.

R.M. Gokul Associates, 134, Sheikh Memon St., Bombay 400002.

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Rajnikant Bros., 58-A, Walkeshwar Rd., Bombay 400006.

Raju Jewellers, Abdulla Bldg. No. 2, Dr. Ambedkar Rd., Parel T.T., Bombay 400012.

Roopchand Jewellers, Sandhurst Bridge, Bombay 400004.

Ruby Jewellers, Tardeo Air-Conditioned Mkt., Bombay 400034.

Samir Diamonds, 9/910, Prasad Chambers, Near Roxy Cinema, Bombay 400004.

Sticks Co., 975, Katra Mohar Singh, Amritsar 143001.

Surajmal Diamonds Pvt. Ltd., 65, Blumoon Complex, M. G. Rd., Bangalore 560001.

Tribhovandas Bhimji Zaveri & Sons, Hermes House, Next to Roxy Cinema, New Queen's Rd., Bombay 400004.

Vajubhai Jewellers, 252/58, Zaveri Bazar, Bombay 400002.

Vummidi Bangaru Chetty Trust, 11, Nageswara Rao Park, Panagal Park, Madras 600017.

Vummidi Muralidhar Jewellers, 47, Cathedral Rd., Madras 600086.

LABORATORY CHEMICALS

Amrutlal Bhurabhai & Co., Anand Bhuvan, S. Gandhi Mrg., Bombay 400002.

B. Babulal & Co., 71, S. Gandhi Mrg., Bombay 400002.

Chandranil Dyechem Corpn., 98, Princess St., Bombay 400002.

Chemical Centre, Chhani Rd., N. H. No. 8, Near Octroi Naka, Vadodara 390002.

Chemical International, 3, Princess St., Bombay 400002.

Chemical Solvent Centre, 43, Princess St., Bombay 400002.

D. K. Lab Chemicals, 98, Princess St., Bombay 400002.

Gaurav Engg. Pvt. Ltd., 1102, Atlanta, 209, N. Point, Bombay 400021

Hazari Trading Co., 296, S. Bhagatsingh Rd., Bombay 400001

Hindustan Chemical Co., Mahavir Darshan, Bhandari St., Bombay 400003

Impex Chemical Corpn., 7, Devkaran Mansion, 24, Vithaldas Rd. Princess St., Bombay 400002.

K. Varajdas & Co., 64/66, Princess St., Bombay 400002

Laboratory Chemicals Co., 79, Princess St., Bombay 40000

Micrographics Agencies, 31, Dadi Santook Bldg., Dadi Sant
Lane, Dholi Talao, Bombay 400002.

N. Uttamlal & Co., 8, Bode Chawl, Babu Genu Rd., Princess St., Bombay 400002.

Narendra & Co., Bode Chawl, Babu Genu Rd., Princess St., Bombay 400002.

National Commercial Corpn., 9, Devkaran Mansion, Princess St., Bombay 400002.

Perfect Chemicals, 32, Shroff Mansion, Princess St., Bombay 400002

Polypharm Pvt. Ltd., 8, Tamarind St., Bombay 400023.

Precision Scientific Co., 4, Baker St., Madras 600001.

Rakesh & Co., 19, National Chambers, 1st Flr., Ashram Rd., Ahmedabad 380009.

S. Mathuradas & Co., Bode Chawl, S. Gandhi Mrg., Bombay 400002.

Shah Scientific (India), 114, Princess St., Bombay 400002.

Vora Brothers, 214-B, S. Gandhi Marg, Bombay 400002.

LABORATORY EQUIPMENT

Gujarat

Durga Traders, Durga Estate, N. H. No. 8, Chhani Rd., Vadodara 390002.

Shah & Co., 66, Shantisadan Estate, Opp. Dinbhai Tower, Lal Darwaja, Ahmedabad 380001.

Karnataka

C.M. Equipments Instruments (India) Pvt. Ltd., 171, 12th Cross of Chord Rd., Rajajinagar, Bangalore 560010.

Lawrence & Mayo India Pvt. Ltd., 4-B, M.G. Rd., Bangalore 560001.

Maharashtra

A. Sevantilal & Bros., 294, P. Nariman St., Bombay 400001.

Aristo Enterprise, 814, Parekh Mkt., Bombay 400004.

Armstrong Smith Ltd., Brady House, 12-14, V. Nariman Rd., Bombay 400023.

C. Abhaykumar & Co., 127, S. Gandhi Mrg., Bombay 400002.

Chemi Equip. Devkaran Mansion, 79, Princess St., Bombay 400002.

Gaurav Engg. Pvt. Ltd., 1102, Atlanta, 209, Nariman Point, Bombay 400021.

Hindustan Trading Co., 91, Princess St., Bombay 400002.

Indento Pvt. Ltd., Harilela House, 8th Flr., 36, Mint Rd., Bombay 400001.

Indsales Corpn., 11, Horniman Circle, Bombay 400023.

J.P. Vyas & Co., Mangaldas Bldg., 20, Kitchen Garden Lane, Bombay 400002.

Jashvant C. Shah & Co., Bharati Nivas, Block 6, 1st Flr., Besant Rd., Santacruz West, Bombay 400054.

Jullundur Surgical Works, 105, Princess St., Bombay 400002.

Labequip Corpn., Post Box 696, Bombay 400001.

Lab-Hosp Corpn., B/26, Bhangwadi, 2nd Flr., Kalbadevi Rd., Bombay 400002.

Lab. Instruments, Panchratna, Near Roxy Cinema, Bombay 400004.

Lawrence & Mayo India Pvt. Ltd., 274, Dr. D.N. Rd., Bombay 400001.

Manilal Maganlal & Co., 382/7, Girgaum Rd., Bombay 400002.

Neolab Sales Corpn., 19A, 1st Flr., Stock Exchange Bldg., Bombay Samachar Mrg., Bombay 400023.

Sarayu Scientific Co., Moosa Bldg., 510, Kalbadevi Rd., Bombay 400002.

Sintrex Corpn., 909, Raheja Centre, N. Point, Bombay 400021.

Union Scientific Syndicate, 71, Princess St., Bombay 400002.

Unique Scientific Syndicate, 17, New Market, 351, Sheikh Memon St., Bombay 400003.

Vibsons Scientific (India), 9, Khandke Bldg., R.K. Vaidya Rd., Dadar, Bombay 400028.

Punjab

Sticks & Co., 975, Katra Mohar Singh, Amritsar 143001.

Tamil Nadu

Beetta Instruments & Equipment Co., 287/611, Lloyds Rd., Madras 600014.

Laboratory Equipment Supplies Co., 26, K.B. Dasan Rd., Madras 600018.

Lawrence & Mayo India Pvt. Ltd., 68, Anna Salai, Madras 600002.

Uttar Pradesh

Superior Scientific Stores, 109/211, Jawaharnagar, Kanpur 208012.

West Bengal

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Laboratory Stores, Taher Mansions, 8, Bentinck St., Calcutta 700001.

Lawrence & Mayo India Pvt. Ltd., 11, Govt. Place East, Calcutta 700001.

Scientific Industries, 51/A, Raja Dinendra St., Calcutta 700009.

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Hindustan Electric and Mill Stores Co., 58, Shradhanand Mrg., Delhi 110006.

Krishna Engg. Works, Plot 712-13, Aramganj, Roshanara Rd., Delhi 110007

M.P. Mudgal & Co., 234A, J. Darwaza, Delhi 110006.

Machine Tools (India) Ltd., D-24, South Ext.—Part II, New Delhi 110049.

Mathur Imports & Exports Pvt. Ltd., Hotel Metro Bldg., N-1, Connaught Circus, New Delhi 110001.

Gujarat

Amba Tools Agency, Dudhej Rd., Surendranagar 363001.

Karnataka

Alfred Herbert (I) Pvt. Ltd., 13/23, Grant Rd., Bangalore 560001.

Bangalore Machine Tools (India), 89/1, Narasamma Comml. Complex, J.C. Rd., Bangalore 560002.

Jayems Engg. Co., 111-118, S.J. Park Rd., Bangalore 560002.

Machine Tools Traders (Bangalore), 41, Narasimharaja Rd., Bangalore 560002.

Machines & Tools Syndicate Pvt. Ltd., 4611, High Point IV, 45/1, Palace Rd., Bangalore 560001.

Quality Machine Tools, 24, J.C. Rd., Bangalore 560002.

Roloforms, Machine Tools Agency Dn., 309, Koramangala, Bangalore 560034.

Maharashtra

Abhay Kumar & Co., 127, Princess St., Bombay 400002.

Amit Engg. Co., P. Box No. 16790, Bombay 400022.

Bharat Industrial Corpn., Petit Compound, Nana Chowk, Grant Rd., Bombay 400007.

Bimpex Machines International, 6, Oak Lane, Bombay 400001.

Blue Diamond Engg. Corpn., 104, Stock Exchange Bldg., Dalal St., Bombay 400023.

C. Bole & Co., 61, Narayan Dhuru St., Bombay 400003.

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Chetna Trading Corpn., 105, Apollo St., Bombay 400023.

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Flex-Tool Equipment Co., 71/73, Nagdevi St., Bombay 400003.
Hemco Corporation, 308, P. Nariman St., Bombay 400001.
Hindustan Engg. Co., Aban House, 25-31, Ropewalk St., Rampart Row, Bombay 400023.
Hindustan Export & Import Corpn. Pvt. Ltd., Anand Bhavan, Dr. D.N. Rd., Bombay 400001.
India Machine Tools Corpn., 62, N. Master Rd., Bombay 400023.
Industrial & Agricultural Engg. Co. (Bombay) Ltd., 43, Dr. V.B. Gandhi Mrg., Bombay 400023.
Industrial Machines & Tools, 158, Narayan Dhuru St., Bombay 400003.
Industrial Traders, 14, N. Master Rd. Extn., Bombay 400023.
International Machine Tools Corpn., 5, Bank St., Bombay 400023.
Jam Machine Tools, 145, Narayan Dhuru St., Bombay 400003.
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Kumar Commercial Co., 12-A, Nadirshaw Sukhia St., Bombay 400001.
Machine Tool Accessories, A-19, MIDC., Andheri East, Bombay 400093.
Machine Tools (India) Ltd., Imperial Chambers, Wilson Rd., Ballard Estate, Bombay 400038.
Machine Tools Syndicate, 13, Lentin Chambers, Dalal St., Bombay 400023.
Machine Tools Traders, 45, Dhanji St., Bombay 400003.
Machinery & Equipments, 271A, Nagdevi St., Bombay 400003.
Machinery & Spares, 30, Apollo St., Bombay 400023.
Machinery Impex Corpn., 271A, Nagdevi St., Bombay 400003.
Machinery Marketing Corpn., 261, Dr. D. Naoroji Rd., Bombay 400001
Machinery Sales Corpn., Afzal Mansion, 11, Burjorji Barucha Marg, Bombay 400001.
Modern Machines (India), 129, N. Master Rd., Bombay 400023.
N.M. Mehta & Co., 4/10, Old Custom House Rd., Bombay 400001.
Oriental Machine Tools Co., 130, Nagdevi St., Bombay 400003.
P. Dalal & Co., Mehta Indl. Estate, 86, C.C.A., Andheri-Kurla Rd., Bombay 400093.
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Popular Machinery Corpn., Agra Bldg., Oak Lane, Bombay 400023.
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Tamil Nadu

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Jayems Engineering Co., 317, Thambu Chetty St., Madras 600001.
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Machine Tools Traders (Madras), 218, Linghi Chetty St., Madras 600001.
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Whitestar Engineering Co., 271, Linghi Chetty St., Madras 600001.

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Builders Home, 12/14, Old Custom House Rd., Bombay 400023.
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Mahavir Ceramics, 161, Panjrapole Rd., Bombay 400004.
N.M. Mehta & Co., 4/10, Old Custom House Rd., Bombay 400001.
Ronak Traders, 3/1, Avanti Apartments, 'A' Flank Rd., Sion East, Bombay 400022.

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Standard Equipment Corpn., 19, Bank St., Bombay 400023.
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Bhupendrakumar & Co., 196-198, Samuel St., Bombay 400009.
Bombay Mineral Supply Co., 138, Nagdevi St., Bombay 400003.
Dhirajlal & Co., 45, Cavel X Lane No. 3, Kalbadevi Rd., Bombay 400002.
Gandhi Enterprises, Giriraj, Flat No. 1, 201, Walkeshwar Rd., Bombay 400006.

Ganesh Mercantiles, 110, Arcot Rd., Kodambakkam, Madras 600024.

Golcha Mineral & Chemical Ind., 10, Clive Row, Calcutta 700001.

Gujarat Industrial Products, P. O. Box No. 62, Virdi Plot, Porbandar 360575.

H.P. Kharawala, 293, Samuel St., Bombay 400003.

Industrial Mineral Chemical Co. Pvt. Ltd., 125, Narayan Dhuru St., Bombay 400003.

Jilindrakumar & Co., 179, Samuel St, Bombay 400009.

Madras Minerals, 470, T. H. Rd., Madras 600021.

Mag-Hard Minerals, Darya Bldg., 375, Dr. D.N. Rd., Bombay 400001.

Minerals & Ores Supplies Co., 43, Sembudoss St., Madras 600001.

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Oriental Minerals, C-8, Brick Bunder, Bombay 400033.

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Sterling Minerals, 6, Tardeo Airconditioned Mkt., Bombay 400034.

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Universal Minerals & Chemical Co., 1308, Prasad Chambers, Opera House, Bombay 400004.

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Universal Business Machines, 32, New Municipal Market, Lodi Colony, New Delhi 110003.

Karnataka

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Maharashtra

Forbes, Forbes Campbell & Co. Ltd., Latham Divn., Forbes Bldg., Charanjit Rai Mrg., Bombay 400001.

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Kapadia Brothers, 81, Abdul Rehman St., Bombay 400003.

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Nooruddin Abdulhusein & Sons, 66, Sutar Chawl, Bombay 400002.

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Tamil Nadu

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Anand Lubricants, 334, Narsi Natha St., Bombay 400004.

Armstrong Oil Co., Kothari Mansion, 3rd Flr., Opp. G. P. O., Bombay 400001.

Bharat Petroleum Products, 273, Narsi Natha St., Bombay 400004.

Bombay Petroleum Dealers, 382/84, Katha Bazar, Bombay 400009.

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Eastern Petroleum Pvt. Ltd., No. 3, Bandra Sea-Shell, Perry Cross Rd., Bandra, Bombay 400050.

Escorts Lubricants, 20, Hem-Prakash, 90, Kazi Syed St., Bombay 400003

Gajanand Oil Industries, 380, Narsi Natha St., Katha Bazar, Bombay 400009.

Gayatri Lubricants, N. S. Rd., Kul Deep Niwas, R. No. 22, Mulund, Bombay 400080.

Golden Eagle Lubricants, Hill No. 5, Asalpa Village, Ghatkopar, Bombay 400084.

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International Agencies (I), 273/77, Narshi Natha St., Bombay 400009.

International Lubricants Co., Court House, Dhobi Talao, Bombay 400002.

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Maharashtra Lubricants, 6/A, Ashok Ind. Estate, L. B. Shastri Mrg., Mulund (W), Bombay 400080.

Maritime Lubricants, 20, Hem Prakash, 90-92, Kazi Syed St., Bombay 400003.

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Mosil Lubricants, 143 B/8, Sion West, P. Box 16791, Bombay 400022.

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Panama Industries, 416, Katha Bazar, Narsi Natha St., Bombay 400009.

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Petro-Chem Ind., Lohana Mahaparishad Bhuvan, 10, Khetwadi 4th Lane, Bombay 400004.

Petro Products Ind., 16, Vithaldas Rd., Bombay 400002.

Pioneer Oil Co., 354, N. Natha St., Katha Bazar, Bombay 400009.

Premier Oil Co., 379/81, Narsi Natha St., Bombay 400009.

Raj Petroleum Products, 5/7, Syed Mukri St., Bombay 400009.

Ravi Petroleum Products, 44, Surya Narayan Chetty St., Madras 600013.

Royal Corpn. of India, 38, Broadway, Madras 600001.

Sterling Lubricants, 19, Hind Rajasthan Centre, Plot No. 272/273, Bhaudaji Rd. Extn., Sion, Bombay 400022.

Swastik Petroleum Products, Nari Seva Sadan, Kurla Indl. Estate, Ghatkopar, Bombay 400086.

Universal Oil Co., 378/80, Katha Bazar, Narsi Natha St., Bombay 400009.

Victory Oil Industries, 75, Commercial Chambers, Masjid Bunder Rd., Bombay 400003.

Vijaya Lubricants, 13, Ashok Ind. Estate, L. B. Shastri Mrg., Mulund (W), Bombay 400080.

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Rangoon Studios, 58, Janpath, New Delhi 110001.

Maharashtra

Bharat Photo Stores, Jiwaji Lane, Dr. D. Naoroji Rd., Bombay 400001.

Continental Photo Stores, 243-45, Dr. D. Naoroji Rd., Bombay 400001.

Forward Stores, Mangalwadi, J. Shankarshet Rd., Bombay 400004.

Tamil Nadu

Photo Cine Stores, 97/98, Armenian St., Madras 600001.

Photo Emporium, 11. Mount Rd., Madras 600002.

West Bengal

Photo Cine Sound Supplies, 21, R.N. Mukherjee Rd., Calcutta 700001.

Photo Cine Stores, 38, J. L. Nehru Rd., Calcutta 700013.

Photocraft, 7, K. S. Roy Rd., Calcutta 700001.

Xaca India Pvt. Ltd., 71, G. C. Ave., Calcutta 700013.

PIPES & PIPE FITTINGS

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Atmaram Harisingh & Co., 2206, Hill St., Raniganj, Secunderabad 500003.

Indian Hardware Mart, 5-1-510, Hill St., Raniganj, Secunderabad 500003.

Metro Hardware Mart, 782/3, Raniganj, Secunderabad 500003.

Taha Tools Enterprise, 4-3-161 C, Hill St., Raniganj, Secunderabad 500003.

Veeras Tube Traders, 7835, Raniganj, Secunderabad 500003.

Delhi

Amar Allied Agencies, 58, Manohar Market, Hauz Qazi, Delhi 110006.

Delhi Pipe Store, Sirkiwalan, Hauz Qazi, Delhi 110006.

Goojar Mall Ganpatrai, Hauz Qazi, Delhi 110006.

Machines & Tubes, 2865, Sirkiwalan, Delhi 110006.

Supra Enterprise, 32/33, Nehru Place, Flat 403, New Delhi 110019.

Tube Distributors, 901, Ansal Bhawan, K. Gandhi Mrg., New Delhi 110001.

Vijay Sales Corpn., 3356, Hauz Qazi, Delhi 110006.

Vinod Metal Industries, 29, Chawri Bazar, Delhi 110006.

Gujarat

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Pipe Suppliers, Pankore Naka, Ahmedabad 380001.

Pipe Traders, 1716, Khadia, Sir Chinubhai Rd., Ahmedabad 380001.

Karnataka

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Maharashtra

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A. H. Virjee & Co., Loha Bhavan, P. D'Mello Rd., Bombay 400009.

Advance Tube Co., 99, Nagdevi St., Bombay 400003.

Afkars Tube Corpn., Plot 152, Reay Rd., Bombay 400033.

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Apex Tubes Corpn., 254, Nagdevi St., Bombay 400003.

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Bakshi Ghura & Co. Pvt. Ltd., 285, Thakurdwar Rd., Bombay 400002.

Bombay Pipe Trading Co., 145, N. Dhuru St., Bombay 400003.

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Commercial Supplying Agencies, 221, Nagdevi St., Bombay 400003.

Crescent Tools Corpn., 4, Raghunath Maharaj St., Mandvi, Bombay 400003.

Daulatram Ratanji & Co., 208, Nagdevi St., Bombay 400003.

Economic Tubes Agency, 15-27, Bibijan St., Bombay 400003.

Engineers Tube Traders, 6, Coal Bunder, Mazgaon, Bombay 400010.

Excel Tube Corpn., 404, Gupta Bhavan, Ahmedabad St., Bombay 400009.

Govardhandas, P. A., 144, Nagdevi St., Bombay 400003.

Greater India Tubes Co., 201, Nagdevi St., Bombay 400003.

Gujarat Tube & Hardware Mart, 24, Nagdevi Cross Lane, Bombay 400003

Hemani Bros., Mulchand Mansion, Princess St., Bombay 400002.

Hindustan Materials Pvt. Ltd., Commissariat Bldg., 231, Dr. D. N. Rd., Bombay 400001.

Indian Tube Syndicate, 116, Narayan Dhuru St., Bombay 400003.

Indo Bombay Trading Co., 34, Nagdevi St., Bombay 400003.

Industrial Development Corpn., 68, Bank of Baroda Bldg., Palton Rd., Bombay 400001.

International Tools & Hardware Suppliers, 242, Nagdevi St., Bombay 400003.

International Tube Co., 138, Nagdevi St., Bombay 400003.

International Tube Trdg. Corpn., 98, Nagdevi St., Bombay 400003.

Ishardas Aggarwal & Sons, Latif House, Sant Tukaram Rd., Bombay 400009.

Jayantilal & Bros., 38, Bibijan St., Bombay 400003.

Kadakia Enterprise, 153, N. Dhuru St., Bombay 400003.

Kapadvanj Trading Corpn., 62, Nagdevi St., Bombay 400003.

Karachi Engg. Co., 42, Onlooker Bldg., Sir P.M. Rd., Bombay 400001.

Kesho Ram & Co., 303, Arihant, Ahmedabad St., Bombay 400009.

Khandelwal Bros. Pvt. Ltd., Khandelwal Bhavan, Dr. D. Naoroji Rd., Bombay 400001.

M.H. Subedar & Sons, 48-A, Magazine St., Darukhana, Mazagaon, Bombay 400010.

M. M. Ebrahimji & Co., 147, Nagdevi St., Bombay 400003.

Maganlal Pranlal & Sons, 105, Nagdevi St., Bombay 400003.

Mahavir Tube Corpn., 240, Nagdevi St., Bombay 400003.

Metro Tube Trading Co., 131/135, N. Dhuru St., Bombay 400003.

MRT Tubes Corpn., 8/14, Baroda St., Bombay 400009.

Muktanandan Corpn., Clerk House, N. Parikh Mrg., Bombay 400005.

Nagardas Kanji Shah, 176, Magazine St., Darukhana, Mazagaon, Bombay 400010.

P. T. F. E. TEFLON &

NYLON RODS, SHEETS,

BLANKS, TUBES

JAYANTILAL & BROS.

Nylon Rods, Sheets, Tubes, P.V.C. Rods, Tubes, Sheets, P.V.C. Welding Rods, Nylon Bolts & Nuts, Nylon Pickers, Textile Parts, H.D.P. Monofilament, Granular, Teflon Rods & Tapes, P. P. Non-metallic Box Strapping Etc.

38, Bibijan St., P.B. No. 3024,
Bombay 400 003.
Phones : 323610/338215.

Nanalal Ambalal & Co., 69, Nagdevi St , Bombay 400003.

Nandkishore Steel & Pipe Distributors, 404, Ashirwad, Ahmedabad St. Bombay 400009.

National Tube and Hardware Mart, 203, Nitin Mansion, Dr. D. N Rd., Bombay 400001.

Necet Trading Corpn. Pvt. Ltd., 94, Nagdevi St., Bombay 400003.

Nikunj Enterprises, 20/26, Tava Lane, A. Rehman St., Bombay 400003.

Nirmal Trading Corpn., 289-91, Nagdevi St., Bombay 400003.

P. Jayantilal & Co., 76-B, Mohamedali Rd., Bombay 400003.

P. S. Parekh & Co., 108, Nagdevi St., Bombay 400003.

Pankaj Trading Corpn., 254, Nagdevi St., Bombay 400003.

Patel Bros., 41, Nagdevi X Lane, Bombay 400003.

Popular Enterprise, 127, Nagdevi St., Bombay 400003.

Pravinchandra & Co., 158/60, Kalbadevi Rd., Bombay 400002.

Premier Tube & Hardware Mart, 43, Nagdevi X Lane, Bombay 400003.

Pressure Tube Industries, BPT Plot No. 345, Copper Smith St., Dockyard Rd., Bombay 400010.

R. Ochhavlal & Co., 86, Nagdevi St., Bombay 400003.

R. Shantilal & Co., 8, Nagdevi St., Bombay 400003.

Radiant Engg. Co., 152, N. Dhuru St., Bombay 400003.

Rajnikant & Co., 53, Bhajipala Lane, Bombay 400003.

Rameshchandra Santram, 205, S. Tukaram Rd., Bombay 400009.

Rasiklal Kantilal & Co., 145, Kika St., Bombay 400004.

Regal Trading Co., 80, Mohamedali Rd., Bombay 400003.

Reliable Engg. Works, 215-A, M. Azad Rd., Bombay 400008.

Remi Tubes & Pipes, 325, Kalbadevi Rd., Bombay 400002.

Rolex Trading Co., 10, Sarang St., Bombay 400003.

Roopa Trading Co., 138, Nagdevi St., Bombay 400003.

Royal Tube Co., 126, Mody St., Bombay 400001.

S. Sevantilal & Co., 246, Yusuf Meheralli Rd., Bombay 400003.

Shah Patel & Co., 111, Nagdevi St., Bombay 400003.

Shah Traders, 61, Nagdevi St., Bombay 400003.

Solar Tubes Pvt. Ltd., 51, Tardeo Air-conditioned Mkt., Tardeo, Bombay 400034.

Standard Pipes & Fittings Co., 93-A, Nagdevi St., Bombay 400003.

Suhas Trading Corpn., 229, Masjid Bunder Rd., Bombay 400003.

Supreme Tubes Corpn., 4/29B, Piru Lane, Pathanwadi, Bombay 400009.

Swastik Trading Corpn., 152, N. Dhuru St., Bombay 400003.

Techno-Fab Industries, 82, Nagdevi Cross Lane, Bombay 400003

Thakorelal & Co., 47, Nagdevi X Lane, Bombay 400003.

Tirathram Kewalkishan & Co., 29, Old Bardan Lane, Vadgadi, Shriram Mkt., Bombay 400009.

Trinity Tube Co., 94, Narayan Dhuru St., Bombay 400003.

Tubes India Corpn., 156/60, Narayan Dhuru St., Bombay 400003.

Union Tube & Hardware Mart, 84/86, Nagdevi Cross Lane, Bombay 400003.

Unique Enterprises, 633, J. Shankershet Rd., Bombay 400002.

United Trading Co., 76, Magazine St., Darukhana, Bombay 400010.

Venus Trading Corpn., 502, Loha Bhavan, P.D'Mello Rd., Bombay 400009.

Vikas Associates, 60, Latif House, 4th Flr., Lokhand Jatha, Carnac Bridge, Bombay 400009.

Zedar Tubes, 25, Maruti Lane, 2nd Flr., Bombay 400001.

Tamil Nadu

Allied Import Co., 19, B. Mudali St., Madras 600003.

Chettinad Steel & Tubes Corpn., 41, Sembudoss St., Madras 600001.

Govardhandas, P. A., 13/81, Sembudoss St., Madras 600001.

Khandelwal Bros. Pvt. Ltd., 82, Sembudoss St., Madras 600001.

Preetam Pipes Syndicate, 2/83, Sembudoss St., Madras 600001.
Reliable Hardware Syndicate, 29, Perianna Maistry St., Madras 600001.
Shivmoni & Co., 2/79, Sembudoss St., Madras 600001.
Sreeram Pipe Traders, 316, Thambu Chetty St., Madras 600001.
Sreevatsa Engg. & Trading Co., 3/79, Sembudoss St., Madras 600001.
Sreevatsa Tube Corpn., 29/2, Sembudoss St., Madras 600001.
Universal Pipe Distributors, 15, Sembudoss St., Madras 600001.

West Bengal

A. N. Hussunally & Co., 28, Strand Rd., Calcutta 700001.
Aartus & Associates Pvt. Ltd., 7A, Elgin Rd., Calcutta 700001.
Advance Engg. Corpn., 12-B, Clive Row, Calcutta 700001.
Banka & Sons, 15, India Exchange Place, Calcutta 700001.
Bharat Pipe Fitting Co., 40, Strand Rd., Calcutta 700001.
Central Pipe Fitting Mart, 10, Canning St., Calcutta 700001.
Chunilal Prabhudas & Co. (Calcutta) Pvt. Ltd., 1, Bonfield Lane, Calcutta 700001.
D. Wren & Co., 25, Swallow Lane, Calcutta 700001.
Jaiswal Hardware Mart, 9, Bidhan Sarani, Calcutta 700006.
Jayant Tube Corpn., 4, Raja Woodmunt St., Calcutta 700001.
Nirmal Trading Corpn., 109, N. Subhas Rd., Calcutta 700001.
Roy & Son, 77, N. Subhas Rd., Calcutta 700001.
Sarcar Bros., 138, BRBB Rd., Calcutta 700001.

PLASTIC PRODUCTS

Dilip Plastics, 5, Shamshet St., Bombay 400003.
Expanded Metal Depot Pvt. Ltd., 91/93, Abdul Rehman St., Bombay 400003.
Ferroplast, 240, A to Z Ind. Estate, Fergusson Rd., Bombay 400013.
Gautam Trading Co., 184, Nagdevi St., Bombay 400003.
Ideal Traders, 11, Horniman Circle, Bombay 400023.
Modern Plastic Co., 36 Sutar Chawl, Bombay 400002.
Paras Trading Co., 49, Mirza St., Bombay 400003.
Plastika Enterprise, 120, Bapu Khote St., 1st Flr., Pydhonie, Bombay 400003.
Spark Traders, 235/37, Walkeshwar Rd., Bombay 400006.

PRESSURE GAUGES

Gemini Corpn., 99, Surat St., Bombay 400009.
H. T. Shah & Co., Ahmed Bldg., Golpitha, Bombay 400004.
India Trading Corpn., 11, Narayan Dhuru Cross Lane, Bombay 400003.
Japsin Instrumentation, 40, Picket Rd., Kalbadevi, Bombay 400002.
Kaushik Engg. Co., 11, Nagindas Master Rd., Bombay 400001.
Kazaf Engg. Co., Palia Bldg., 191, Nagdevi St., Bombay 400003.
Narottamdas Kevalbhai Shah, 26, Abdul Rehman St., Bombay 400003.
Premier Tube & Hardware Mart, P. B. No. 3279, 43, Nagdevi Cross Lane, Bombay 400003.
Shah Desai & Co., 115, Nagdevi St., Bombay 400003.
Tubes (India) Corpn., 158-60, N. Dhuru St., Bombay 400003.
Venus Trading Co., 122, Barbhai Moholla, Bombay 400003.
Willgreen Commercial Corpn., 6, Khokha Bazar, Bombay 400003.

PUMPS & PUMPING SETS

Andhra Pradesh

Agricultural Engg. Co., 4 & 5, Durga Bhuvan, Rashtrapathi Rd., Secunderabad 500003.
Andhra Pradesh Co., 11, Durga Bhuvan, Rashtrapathi Rd., Secunderabad 500003.
Arjun Aancillads, 33-B, Vasavi Nagar Colony, Near Secunderabad Club, Picket, Secunderabad 500003.
Super Traders, Opp. Blood Bank, Narayanguda, Hyderabad 500029.

Delhi

Agricultural Engg. Co., Naya Bazar, Delhi 110006.
Associated Engineers, 1860, Mahalaxmi Mkt., Delhi 110006.
Great India Engg. Co., 225, Cycle Mkt., Jhandewalan Extn., New Delhi 110055.
Pumps & Primemovers Pvt. Ltd., 4E/8, Jhandewalan Extn., New Delhi 110055.

Gujarat

Fourvents Engg. Co., 6, Shantisadan Socy., Lal Darwaja, Ahmedabad 380001.
Krantarth Traders, 582B, Sir Chinubhai Rd., Khadia, Opp. Golwad, Ahmedabad 380001.

Karnataka

M. Ramiah & Sons, Sri Krishna Bldgs., Avenue Rd., Bangalore 560002.
Mahakali Engg. Corpn., 133, Nagarthpet, Bangalore 560002.

Maharashtra

A. N. Seth & Co., 140, Meadows St., Bombay 400023.
Aarco, 3, Navjivan Colony, 14th Flr., Lamington Rd., Bombay 400008.
Agritex (India), 3/31-32, Tardeo Airconditioned Mkt., Bombay 400034.
Batliboi & Co., Apeejay House, V. B. Gandhi Mrg., Bombay 400023.
British Engg., 105, Apollo St., Bombay 400023.
C. Bole & Co., 61, Narayan Dhuru St., Bombay 400003.
Drewet Chowna & Co., 123, N. Master Rd., Bombay 400023.
Herberts Grovers Engg. Co., Hamam St., Bombay 400001.
H-Welore Sales, Navjivan Socy. Bldg. No. 3/7, 7th Flr., Lamington Rd., Bombay 400008.
Industrial Stores Co., 139, N. Master Rd., Bombay 400023
Kaushik Engg. Co., 111, Nagindas Master Rd., Bombay 400023.
Lala Engg. Co., 82/1, Bombay Samachar Mrg., Bombay 400023.
Maharashtra Machinery Spares Corpn., 32, Bombay Samachar Mrg., Bombay 400001.
Manohar Bros., 4, Commerce House, Medows St., Bombay 400023.
Marketing Sales Supply Commercia, 65, M. Gandhi Rd., Bombay 400023.
Nav-Maharashtra Engg. Syndicate, 15, Dr. V.B. Gandhi Mrg., Bombay 400023.
New Era Engg. Co., 128, Medows St., Bombay 400023.
Nigos Corpn., 64, Forbes St., Bombay 400001.
Prinz Magnon (India), C-3, 3rd Flr., Commerce House, 140, N. Master Rd., Bombay 400023.
Semeicon Pvt. Ltd., 132, Dr. A. Besant Rd., Bombay 400018.
Talib & Bros., 89, Lohar Chawl, Bombay 400002.
Thapar Bros., 302, Commerce House, N. Master Rd., Bombay 400023.
Toshniwal Bros. Pvt. Ltd., 198, J. Tata Rd., Bombay 400020.
United India Engg. Co., 6, Commerce House, 140, N. Master Rd., Bombay 400023.
Upadrasta & Sons, Bennett House, Forbes St., Bombay 400001.
Vijay Engg. & Machinery Co., 74, Sharif House, S. Bhagatsingh Rd., Bombay 400023.
Water Aids Sales & Service, 17, Bell Bldg., Sir P.M. Rd., Bombay 400001.

Tamil Nadu

Asha Engg. & Marketing, 7-A, Goods Shed St., Madurai 625001.
Diamond Engg. Co., 6, Errabalu Chetty St., Madras 600001.

Pumps & Pumping Machinery

VIJAY ENGINEERING AND MACHINERY CO.

Bombay Mutual Annexe Building,
Cawasji Patel Street,
Fort, Bombay 400 001.
Phones: Regd. Office: 257836 & 298991.

●

Sales Office:

Sharif House, 74, Shaheed Bhagatsingh Road,
Fort, Bombay 400 023.
Phones: 252576 & 251845..

Authorised Dealers for :

Kirloskar Diesel Engines, Kirloskar Electric Motors, Kirloskar Centrifugal Pumps, Kirloskar Foot Valves, Sluice Valves and Reflux Valves, Kirloskar Diesel Pumpsets, Kirloskar Electric Pumpsets, Jyoti Vertical Turbine Pumps, Mico Fuel Injection Equipment, Genuine Spares for Kirloskar Engines and Pumps.

Equipment Agencies, 97, Dr. Nanjappa Rd., Coimbatore 641018.
G. Janshi & Co. Pvt. Ltd., Opp. Alankar Theatre, 813, Mount Rd., Madras 600002.
Manohar Bros., 258, Angappa Naicken St., Madras 600001.
Vikrama Engg. Co. (Agencies), 1/11, Errabalu Chetty St., Madras 600001.

West Bengal

Asea United Traders & Industries Pvt. Ltd., 10-B, Kapalitolla Lane, Calcutta 700012.
Calcutta Engg. Co., 24, Amratalla Lane, Calcutta 700001.
Commercial & Engg. Corpn., 138, BRBB Rd., Calcutta 700001.
Deepak Engg. Co., 37, BRBB Rd., Calcutta 700001.
Eastern Engg. Enterprises, 54, G. C. Avenue, Calcutta 700013.
Elektro Equipments, 32, Ezra St., Calcutta 700001.
General Machinery Corpn., 13, G. C. Ave., Calcutta 700013.
H. K. Enterprise, 54, G. C. Ave., Calcutta 700013.
Lloyds Engg. Co., 3, Amratolla St., Calcutta 700001.
P. Chakravarty & Sons, 3/1, Mangoe Lane, Calcutta 700001.
PB Udyog, 201, M. G. Rd., Calcutta 700007.
Plant and Machinery, 3, Mangoe Lane, 1st Flr., Calcutta 700001.
Sudeep Industrial Corpn., 13, Canning St., Calcutta 700001.
Techmech (India), 32, Ezra St., Calcutta 700001.
Vijay Machinery Mart, 51, Ezra St., Calcutta 700001.
Wellwater Services Pvt. Ltd., 63, Radha Bazar St., Calcutta 700001.
West Bengal Engg. Co., 138, BRBB Rd., Calcutta 700001.
Western India Machinery Co., 24, G. C. Ave., Calcutta 700013.

SANITARY GOODS

Andhra Pradesh

National Sanitary Engg. Co., 149, Rashtrapathi Rd., Secunderabad 500003.
Uday Engg. Co., Tilak Rd., Hyderabad 500001.

Delhi

Arail Bros., Chawri Bazar, Delhi 110006.
Bharat Iron Works, Chawri Bazar, Delhi 110006.
D. Nath & Co., 3681, Chawri Bazar, Delhi 110006.
Goojar Mal Ganpat Rai, 33271, Hauz Qazi, Delhi 110006.
Intertools, Akashdeep, 26A, Barakhamba Rd., New Delhi 110001.
M. M. Arora & Co., 3639/10, Chawri Bazar, Delhi 110006.
Mahabir Pershad & Sons, 3702, Chawri Bazar, Delhi 110006.
Moti Lal Jain & Co., 3622, Chawri Bazar, Delhi 110006.
Prakash & Co., 3690, Chawri Bazar, Delhi 110006.
Prem Enamel & Metal Factory, Bara Hindu Road, Delhi 110006.
R. B. Rodda & Co. Ltd., 4K, Connaught Circus, New Delhi 110001.

Gujarat

Gujarat Tube & Sanitary Stores, Khadia Char Rasta, Ahmedabad 380001.

Maharashtra

A. G. Karimji Calcuttawala, 82, Kika St., Bombay 400004.
A. H. Shah & Co. Pvt. Ltd., Nanabhai Mansion, Sir P.M. Rd., Bombay 400001.
All India Trading Centre, 100, Mint Rd., Bombay 400001.
Aranha Agencies, St. Michael Ch., L. J. Rd., Mahim, Bombay 400016.
Asgaralli Nuruddin & Co., 95, Nagdevi Street, Bombay 400003.
Bharat Pipe & Sanitary Corpn., 67-69, Mohamedali Rd., Dada Manzil, Bombay 400003.
Bharat Sanitary Stores, 73, Nagdevi St., Bombay 400003.
Bombay Building Materials Trading Co., 73, Medows St., Bombay 400023.
C. Bhogilal & Co., 310, P. Nariman St., Bombay 400001.
C. Tribhovandas & Co., 11, Green St., Bombay 400023.
Ceramica, 98, Medows St., Bombay 400023.
Crown Sanitary Suppliers, 9, 1st Cooper St., Bombay 400003.
Gopal Chand Puri & Brothers, 70, Mohamedali Rd., Bombay 400003.
Indian Ceramic Centre, 20/24, Old Custom House Rd., Bombay 400023.
Jivraj & Vrajlal, 122, Nagdevi St., Bombay 400003.
K. Chimanlal & Co., 107A, Nagdevi St., Bombay 400003.
K. Gigabhai & Sons, 8-10, Green St., Bombay 400023.
Maganlal Pranlal & Sons, 105, Nagdevi St., Bombay 400003.
Modern Tube & Sanitary Stores, 48, Nagdevi St., Bombay 400003.
N. M. Mehta & Co., 4-10, Old Custom House Rd., Bombay 400023.
Nanalal Ambalal & Co., 69, Nagdevi St., Bombay 400003.
New India Sanitation Co., Central Bank Bldg., Homi Mody St. Bombay 400023.
P. S. Parekh & Co., 108, Nagdevi St., Bombay 400003.
Parikh Brothers, 12, Elphinstone Circle, Botawala Bldg., Bombay 400023.
Plasto-field, 213, Yusuf Meherali Rd., Bombay 400003.
R. C. Puri & Sons, 64-C, Sharu Castle, Mohamedali Rd., Bombay 400003.
R. Moolchand & Co., 44, Nagdevi Cross Lane, Bombay 400003.
United Potteries & Glassware Mart, 22, Noble Chambers, S. A. Brelvi Rd., Bombay 400001.
Vinubhai Chandulal & Co., 63, Nagdevi St., Bombay 400003.

Tamil Nadu

Bharat Sanitary Stores, 629, Perianna Maistry St., Madras 600001.
Calcutta Light Casting Supply Co., 19, E. Chetty St., Madras 600001.
Girnath Agencies, 133A, Crosscut Rd., Tatabad, Coimbatore 641012.
Haridas Bhagat & Co. Pvt. Ltd., 9/240, Crosscut Rd., Coimbatore 641012.
King & Co., 25, Thambu Chetty St., Madras 600001.
Madras Sanitary Mart, 418, Triplicane High Rd., Madras 600005.
Modern Sanitary Supplies, 24, T. Chetty St., Madras 600001.
New India Sanitary Stores, 65/7, Sembudoss St., Madras 600001.
United Mercantile Agencies, 1, Moores Rd., Madras 600006.

West Bengal

Allied Agencies (India), 10, N. Chander St., Calcutta 700012.
Emporia of Commercial Stores, 22, N. Subhas Rd., Calcutta 700001.
Hindusthan Distributors, 33, G. C. Ave., Calcutta 700012.
Laxmi Pottery Agencies, 7, R. Bazar St., Calcutta 700001.
R. B. Rodda & Co. Ltd., 2, Red Cross Place, Calcutta 700001.
Sanitary & Plumbing Stores Pvt. Ltd., 146, S. P. Mukherjee Rd., Calcutta 700026.

SCIENTIFIC INSTRUMENTS & LABORATORY EQUIPMENTS

Delhi

India Scientific Stores, 562, Esplanade Rd., Delhi 110006.
Lawrence & Mayo India Pvt. Ltd., 76, Janpath, New Delhi 110001.

Gujarat

Scientific & Surgical Corpn., Khadia Kuin, Ahmedabad 380001.
Shah & Co., 66, Shantisadan Estate, Opp. Dinbai Tower, Lal Darwaja, Ahmedabad 380001.

Maharashtra

Adair, Dutt & Co. (India) Pvt. Ltd., Syndicate Bank Bldg., Sir P. Mehta Rd., Bombay 400001.
Allied Drawing Stores, Sitaram Bldg., 29, Dr. D.N. Rd., Bombay 400001.

Beekay International, 44/46, Popat Wadi, Mahabir Bldg., Bombay 400002.

C. Abhaykumar & Co., 127, Princess St., Bombay 400002.

Electronic Centre, 105/107, A. Rehman St., Asma Manzil, Bombay 400003.

Gaurav Engg. Pvt. Ltd., 1102, Atlanta, 209, N. Point, Bombay 400021.

Hazari Trading Co., 296, S. Bhagatsingh Rd., Near G.P.O., Bombay 400001.

India Scientific Emporium, Kamdar Chambers, Sion East, Bombay 400022.

Indo-Chem Corpn., 615, Cotton Exchange Bldg., Bombay 400002.

J. T. Jagtiani, National House, Tulloch Rd., Apollo Bunder, Bombay 400039.

Jashvant C. Shah & Co., Bharati Nivas, Block 6, 1st Flr., Besant Rd., Santacruz West, Bombay 400054.

Kalidas Madhavji & Co., 100, Princess St., Bombay 400002.

Lab-Hosp. Corpn., C/9, Laghu Udyog Kendra, I. B. Patel Rd., Goregaon East, Bombay 400063.

Lawrence & Mayo India Pvt. Ltd., 274, Dr. D.N. Rd., Bombay 400001.

Pharma Trust, 114, S. Gandhi Mrg., Bombay 400002.

Sanjay Scientific Corpn., Old Sitaram Bldg., 204, Princess St., Bombay 400002.

Scientific Sales Syndicate, Irani Bldg., 303, Cawasji Hormasji St., Bombay 400002.

Scientific & Technical Home, 443, D. Bhadkamkar Mrg., Bombay 400004.

Unique Scientific Syndicate, 351, S. Memon St., Bombay 400002.

Unique Trading Corpn., 221, Sheriff Devji St., Bombay 400003.

Vikas Glass Apparatus Co., 114, Satyam Industrial Estate, Bombay 400088.

Vora Bros., 214-B, S. Gandhi Mrg., Bombay 400002.

Zill & Co., 128, S. Gandhi Mrg., Bombay 400002.

Tamil Nadu

Industrial & Laboratory Equipment Co., 22, P.Maistry St., Madras 600001.

Instruments & Equipments, 16, Meeran Sahib St., Madras 600002.

Lab Ella Instrumentina, 5, Umpherson St., Madras 600001.

Lawrence & Mayo India Pvt. Ltd., 68, Anna Salai, Madras 600002.

Mehta Scientific Corpn., 99, Perumal Mudali St., Madras 600001.

New Trade Links, 9 Kasichetty St., Madras 600001.

Precision Scientific Co., 4/14, Baker St., Madras 600001.

Sakthi Scientific Instruments Co., 41, Venkatesan St., T. Nagar, Madras 600016.

Sampat Ceramics Pvt. Ltd., 119, Nainiappa Naicken St., Madras 600003.

West Bengal

Automatic Scientific Supply, 149/1, Beliaghata Main Rd., Calcutta 700010.

Banner & Co., 265, B. B. Ganguly St., Calcutta 700012.

Ghose Bros., 14/2, Old China Bazar St., Calcutta 700001.

Industrial Enterprises, 71, BRBB Rd., Calcutta 700001.

International Commercial Traders, 18, Era St., Calcutta 700001.

Lawrence & Mayo India Pvt. Ltd., 11, Govt. Place East, Calcutta 700001.

Luxmi Scientific Glass Works, 4/8, Ultadanga Main Rd., Calcutta 700004.

New India Scientific Works, 63, Baithakhana Rd., Calcutta 700009.

Oriental Trading Corpn., 135, BRBB Rd., Calcutta 700001.

Scientific Supplies, 55, BRBB Rd., Calcutta 700001.

Wassan Bros., 26, J. Nehru Rd., Calcutta 700013.

SEAFOOD EXPORTERS

Ahmed Oomerbhoy (Exports) Pvt. Ltd., Sitaram Bldg., "D" Block, Palton Rd., Bombay 400001.

Apollo Seafoods, Balmatta Rd., Mangalore 575001.

Associated International Corpn., 11, Pollock St., Calcutta 700001.

Blue Bay Fisheries Pvt. Ltd., 12/140 A, Kochangadi, Cochin 682005.

Bombay Fisheries Corpn., Hazarat Terrace, Sankli St., Byculla, Bombay 400008.

Chemmeens (Exports) Pvt. Ltd., Edacochin, Cochin 682006.

Cochin Seafoods, 1/64, Arcot Rd., Alwarthirunagar, Madras 600087.

Continental Seafoods India Pvt. Ltd., Arunachala Eswaran Koil St., Madras 600081.

Cordel Sea Foods Pvt. Ltd., Sepoy St., Cuddalore 607003.

Danda Fisheries Pvt. Ltd., 19, Mohatta Mkt., Palton Rd., Bombay 400001.

E.I.D. Parry Ltd., Marine Products Unit, P.B. No.380, Cochin 682002.

Eastern Seafood Exports Pvt. Ltd., 1/6, Harrington Avenue, Chetput, Madras 600031.

Fazalbhai Ibrahim & Co. Pvt. Ltd., Ismail Bldg., 381, Dr. Dadabhai Naoroji Rd., Bombay 400001.

General Seafoods Pvt. Ltd., P.Box 31, Quilon 691001.

Gulf Sea Food Export House & Sea Food Export Corpn., 41, Korepope St., Tuticorin 628001. (Tamil Nadu).

Hussain Exports Pvt. Ltd., 1/12, Jagannathan Rd., Nungambakkam, Madras 600034.

India Seafoods (Regd.), P.B. No. 813, Cochin 682005.

Indo-Marine Agencies (Kerala) Pvt. Ltd., Kochangadi, Cochin 682005.

Island Seafoods Pvt. Ltd., P.B. No. 580, Island Club House, Cochin 682003.

J.R.K. Seafoods Pvt. Ltd., 11, L.D. Ruparel Crosslane, Bombay 400006.

Karthika Marine Industries Pvt. Ltd., Chittoor Rd., Ernakulam, Cochin 682018.

Kerala Exports Pvt. Ltd., XII/1151 A, Panayappilly, Cochin 682002.

King Fisher Marine Products, 28-F, Wallers Rd., Madras 600002.

Konkan Fisheries Pvt. Ltd., India House, 3rd Flr., Opp. G.P.O., Bombay 400001.

Konkan Sea Foods Ltd., Warden House, 5th Flr., Sir P.M. Rd., Bombay 400001.

Kothari (Madras) International, 'Kothari Bldgs.', 20, Nungambakkam High Rd., Madras 600034.

Manerkar Fisheries Pvt. Ltd., Roshan Mahal, P.B. No. 42, Swatantraya Path, Vasco Da Gama 403802. (Goa).

Nava Bharath Enterprises Pvt. Ltd., Fisheries Divn., Door No. XVIII/1556(A), Near Laxmi Narayana Saw Mill, Cochin 682005.

New India Fisheries Ltd., Karuvelipadi, Cochin 682005.

Oceanic Products Exporting Co., Choolakkaparambil Rd., Ernakulam, Cochin 682018.

Prawns International Corpn., Karuvelipadi, Cochin 682005.

Rani Exporters Pvt. Ltd., C/o Santosh Aquatic Products, 11/4 Beebi Alabi Rd., Bunder, Mangalore 575001.

Ravi Fisheries Pvt. Ltd., Nilum Mansion, Lamington Rd., Bombay 400004.

Revathy Exports Pvt. Ltd., XXV/1947 "Archana", Vyttila, Cochin 682019.

Seafood (Exports) Pvt. Ltd., Cheriakadavu, Kannamali, Cochin 682007.

Southern Seafoods Ltd., "Montieth Court", 15, Montieth Rd., Madras 600008.

United Industries (Cochin) Ltd., Kochangadi, Cochin 682002.

Universal Marine Agencies, Bharath Bldg., KSR Cross Rd., Mangalore 575001.

Vijaya Industries, P.B. No.828, Cochin 682005.

SEWING MACHINES

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SEWING MACHINES

Maharashtra

E.H. Turel & Co., 48, Clare Rd., Byculla, Bombay 400008.

Frost Engg. Co., 3, Rupam Bldg., Sion Circle, Bombay 400022.

Jayantilal Keshavlal & Bros., 282, S.V. Patel Rd., Bombay 400004.

Mehta Bros. & Co., 306, Sardar V.P. Rd., Bombay 400004.

National Sewing Machines Co., 10, Jerbai Baug, Byculla, Bombay 400027.

Senhig Machineries Syndicate, 653-A, J. Shanker Sheth Rd., Bombay 400002.

Sundersons, 647, J. Shanker Sheth Rd., Near Dhobi Talao, Bombay 400002.

Super Sewing Machine Co., Prajapati Bhuvan, Gokhale Rd. (N), Dadar, Bombay 400028.

Tolaram Ramdas & Co., 629-B, J. Shanker Sheth Rd., Bombay 400002.

United Trading Agencies, 611, Girgaum Rd., Bombay 400002.

Vivek Enterprises, 114, Abdul Rehman St., Bombav 400003

Punjab

Automite (India), 627, Naya Mohalla, Ludhiana 140101.

Columbia Sewing Machine Co., 13, Ganesh Mkt., Lakkar Bazar, Ludhiana 141001.

Hans Sewing Machine Co., Moongphali Mandi, Miller Ganj, Ludhiana 141003.

Manohar Sewing Machine Co., Lakkar Bazar, Ludhiana 141003.

Pilot Sewing Machine Co., Lakkar Bazar, Ludhiana 141003.

Popular Sewing Machine Co., Lakkar Bazar, Ludhiana 141003.

R.L. Sewing Machine Co., Pindi St., Ludhiana 141003.

Yash Mechanical Co., B-VIII, 613, Lakkar Bazar, Ludhiana 141003.

Tamil Nadu

Radha Enterprises, 56, Royapettah High Rd., Madras 600004.

West Bengal

Bose & Co., 149/1, Lenin Sarani, Calcutta 700013.

SPORTS GOODS

Andhra Pradesh

Oberon Sporting Service, 2-3-37, Amberpet, Hyderabad 500013.

Delhi

Sports Incorporated, A-138, New Friends Colony, New Delhi 110014.

Goa

Goa Vidya Bhandar, P.O. Box No.248, Margao 403601.

Maharashtra

A.N. Kapoor & Co., 302, L. Tilak Marg, Bombay 400002.

D.D. Sharma & Co., Dhobi Talao, Bombay 400020.

Pioneer Sports Works Pvt. Ltd., 292, Tilak Marg., Bombay 400002.

Sportique, National House, Tulloch Rd., Apollo Bunder, Bombay 400039.

Tamil Nadu

Lightway Sports Co., 854, Mount Rd., Madras 600002.

Suray Sports, 16, First Main Rd., C.I.T. Colony, Madras 600004.

West Bengal

G.K. Sports, 30, J. Nehru Rd., Calcutta 700016.

Pioneer Sports (I) Pvt. Ltd., 25, J. Nehru Rd., Calcutta 700013.

SURVEYING INSTRUMENTS

(See under Scientific Instruments and Laboratory Equipment in this list.)

SYNTHETIC ENAMEL & CELLULOSE LACQUERS

Empire Paints & Hardware Centre, 56, Motiwala Bldg., 2nd Rd., Khar, Bombay 400052.

Harilal & Co., 18, Rohit Chambers, Parsee Bazar St., Bombay 400001.

M. Baker & Co., 35, Nagdevi St., Bombay 400003.

Marvin & Co. Pvt. Ltd., 3, Mody Chambers, Kennedy Bridge, Bombay 400004.

Mehta Hardware & Paints Mart, Lila Nivas, Napoo Rd., Matunga (C.Rly.), Bombay 400019.

Santaram Nikkamal Pvt. Ltd., 32, Bibijan St., Bombay 400003.

TEXTILE STORES & MACHINERY

Gujarat

Pargans (India) Pvt. Ltd., Industrial Mills' Estate, Gomtipur, Ahmedabad 380021.

Maharashtra

Acme Mfg. & Agencies (India), 4, Dean Lane, Alli Chambers, Bombay 400001.

Allied Machinery, 17, Nazir Bldg., Calicut St., B. Estate, Bombay 400038.

Altex Pvt. Ltd., P. Box 1096, Bombay 400023.

Arvinda Trading Co. Pvt. Ltd., 105, Apollo St., Bombay 400023.

B. Thanawala & Sons Pvt. Ltd., 47, Tamarind Lane, Bombay 400023.

Bombay Mill Stores Supply Co. Pvt. Ltd., W.I. House, Sir P. Mehta Rd., Fort, Bombay 400001.

C. Doctor & Co. Pvt. Ltd., 11, Homi Mody St., Bombay 400023.

Chunilal Mulchand & Co., Waterloo Mansion, Madame Cama Rd., Bombay 400039.

Consolidated Mill Supplies Pvt. Ltd., Co-op. Insurance Bldg., Sir P. Mehta Rd., Fort, Bombay 400001.

Engineering & Agencies Pvt. Ltd., French Bank Bldg., Homji St., Bombay 400001.

Excelsior Mill Supply Co., Ltd., 45-46, Alli Chambers, N. Master Rd., Bombav 400023.

Indian Textile Engineers Pvt. Ltd., 81-83, Veer Nariman Rd., Bombay 400020.

Indo-Foreign Textile Co., 43, Tamarind Lane, Bombay 400023.

J. Bracewell Pvt. Ltd., Nagree Bldg., 50/56, Custom House Rd., Bombay 400001.

Mehta Parikh & Co. Pvt. Ltd., 45-47, Apollo St., Bombay 400023.

Nagindas Kilbhai & Co., Crescent Chambers, Tamarind Lane, Bombay 400023.

Narotamdas Chunilal & Co., 51, Tamarind St., Bombay 400023.

Ormerods (India) Pvt. Ltd., 12, Apollo Street, Bombay 400023.

Phiroz N. Motabhoy & Co. Pvt. Ltd., 146, Nagindas Master Road, Bombay 400023.

Prakash Trading Corpn., Mangrol Mansion, Bora Bazar St., Bombay 400001.

S.C. Sheth & Co. Pvt. Ltd., 8, Hamam St., Bombay 400001.

Star Trading Co. Pvt. Ltd., Dhanraj Mahal, C. Shivaji Maharaj Marg, Bombay 400039.

Surendrakumar & Co. Pvt. Ltd., C-3, Corinthian, Near Telephone Bhuvan, Colaba, Bombay 400005.

Technofield Sales Corpn., 19, Parsi Panchayat Rd., Andheri, Bombay 400069.

Textray Traders Pvt. Ltd., Laxmi Bldg., 6, Ballard Road, Bombay 400038.

Unitex Corpn., 712, Embassy Centre, Nariman Point, Bombay 400021.

Voltas Ltd., Voltasagar, Dr. Ambedkar Rd., Bombay 400033.

W.H. Brady & Co., Ltd., Brady House, 12/14, Veer Nariman Road, Bombay 400023.

Tamil Nadu

Acme Textiles, 6/520, Trichy Rd., P.O. Box 145, Coimbatore 641018.

Uttar Pradesh

Thanawala Stores Trading Corpn., Vivek Bldg., Chuniganji, Kanpur 208001.

TIMBER

Anand Timber Traders, 170, Reay Rd., Bombay 400010.
Arvind Timber Products Pvt. Ltd., 501, Rewa Chambers, 31, New Marine Lines, Bombay 400020.
Baroda Timber Trading Co., Bombay Timber Market Ltd., Reay Rd., Bombay 400010.
Calcutta Builders' Stores Ltd., 32C, Chittaranjan Ave., Calcutta 700012.
Dandeli Timber Trading Co., Mustafa Bazar, Zavla Mrg., Bombay 400010.
Famous Timber Trading Co., 74, Ismail Curtey Rd., Bombay 400010.
Farouk Sodagar Darvesh & Co., 85-A, Sant Savta Mrg., Mazgaon, Bombay 400010.
Fopco Traders, 100, Victoria Rd., Mustafa Bazar, Bombay 400010.
Gopalson, Khajuri Rd., Yamunanagar 135001. (Haryana).
Jawahar Saw Mills, 47, Victoria Rd., Mustafa Bazar, Bombay 400010.
Makanji & Co., 81, S.Savata Mrg., Mustafa Bazar, Bombay 400010.
Maklai Timber Mart, 79, Ghoghari Mohalla, Bombay 400003.
Mulji Wood Products Pvt. Ltd., 'Tejkiran', Tejpal Rd., Vile Parle East, Bombay 400057.
Mysore Timber Mart, 67/69, Ismail Curtey Rd., Bombay 400003.
Parekh & Co., 77, Victoria Rd., Mustafa Bazar, Bombay 400010.
Processed Timber Products, 106, S.V. Rd., Santacruz West, Bombay 400054.

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Rameshchandra & Co., 158, Reay Rd., Bombay 400010.
Shree Shankar Vijay Timber Inds., 48, Mount Rd., Bombay 400010.
Timber Supplying Corpn., 134, Reay Rd., Bombay 400010.
United Timber Inds., 59, S. Savata Mrg., Mustafa Bazar, Bombay 400010.
Viswa Timber Trading Co., 43, M.K.N. Rd., Alandur, Madras 600022.
Wood Sellers Syndicate, Gala No. 99, Victoria Rd., Mustafa Bazar, Bombay 400010.
Yamuna Timber Industries Pvt. Ltd., 8 & 9, Bentinck St., Calcutta 700001.
Yusuf Maklai Co., 41/45, Mustafa Bazar, Bombay 400010.

TOOL, ALLOY & SPECIAL STEEL

Agarwal Machine & Engineering Stores, 63/69, Nagdevi Cross Lane, Bombay 400003.
Ajay Engg. Inds., Churchgate Chambers, New Marine Lines, Bombay 400020.
Baijnath & Sons, 22, Strand Rd., Calcutta 700001.
Bathija Corporation, No. 2, Jelly, Strand Rd., Calcutta 700001.
Bombay Tools Supplying Agency, T.G. Shah Bldg., Pydhonie Jn., Bombay 400003.
Cali Mic Impex, 110, N. Dhuru St., Bombay 400003.
Cambay Tool Steel Co., 924, Memonwada Rd., Dada Manzil, Bombay 400003.
Carex Trading Co., 35, 1st Pathan St., Bombay 400004.
Central Steel Corpn., 38, Sheikh Mohamedali Allabux Rd., Bombay 400003.
Comet Steels, Pravin House, 4th Kumbharwada Lane, Bombay 400004.
Consolidated Steel Corporation, 30, Narayan Dhuru St., Bombay 400003.

CENTRAL STEEL CORPORATION

38, Bhajipala Lane,
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Continental Steel Corpn., 12/14, Ardeshir Dady St., Bombay 400004.

Dharamdas M. Jhaveri & Co., 284, Nagdevi St., Bombay 400003.

Dhiraj Steel Co., 93, Mohamedali Rd., Bombay 400003.

India Tool Steel Mart, 200, T. Parsuram St., 6th Kumbharwada, Bombay 400004.

Indian Metal Inds., 6/11, Jagdish Kunj, R.A. Kidwai Rd., Wadala, Bombay 400031.

Industrial Commercial Corpn., 572/3, Reid Rd., Ahmedabad 380002.

Industrial & Mining Tools Co., 30, Chittaranjan Ave., Calcutta 700012.

Khandelwal Agencies, 23, Mooker Nallamuthu St., Madras 600001.

Maharashtra Steel Corpn., 52, Baroda St., Bombay 400009.

Mehta Steel Co., 36, Bora Bazar St., Bombay 400001.

N. Ratilal & Co., Darukhana, Oza Mkt., Mazgaon, Bombay 400010.

Navdeep Traders, 147, N. Dhuru St., Bombay 400003.

Orient Trading Corpn., Gaja Bldg., 2nd Flr., Room 10, Yusuf Meherally Rd., Bombay 400003.

Perfect Alloy Steel Agency, 101, Nagdevi St., Bombay 400003.

Premier Tools Traders, 67/69, Dada Manzil, Mohamedali Rd., Bombay 400003.

Raj Tools Corpn., 50, Bibijan St., Bombay 400003.

Reliable Steel & Pipe Traders, 89, Tambakanta, Bombay 400003.

S.J. Trading Co., 91, Khetwadi Back Rd., Khemraj Bhuvan, Bombay 400004.

Shah Engg. & Equipment Co., 145, Kassara St., Bombay 400010.

Steel Centre, 29, Strand Rd., Calcutta 700001.

Summit Tools Corpn., 13, Mooker Nallamuthu St., Madras 600001.

Sunshine Steels, 118, Nagdevi St., Bombay 400003.

Teedee Steel Corpn., 84, Memonwada Rd., Bombay 400003.

United Steel & Bearing Co., 5B, Clive Ghat St., Calcutta 700001.

Union Commercial Corpn., 608, Churchgate Chambers, New Marine Lines, Bombay 400020.

Venus Tools Agencies, 126/128, Nagdevi St., Bombay 400003.

Vikas Steel Co., 81, N. Dhuru St., Bombay 400003.

Workshop Engg. & Equipments Co., 30-32, Bhajipala St., Bombay 400003.

TOOLS

(See Hardware Tools and Machinery in this list).

TRACTORS & SPARES

(See Earthmoving Machinery & Spares in this list).

VALVES & COCKS

A. Mohamed & Co., 158, Linghi Chetty St., Madras 600001.

Ambica Traders, 323, R. Bhogle Mrg., Mazgaon, Bombay 400010.

Apex Equipments & Instruments, 9, Clive Row, Calcutta 700001.

Apex Tubes Corpn., 254, Nagdevi St., Bombay 400003.

Bakubhai Ambalal, Kaiser-I-Hind Bldg., Currimbhoy Rd., B. Estate, Bombay 400038.

Bengal Pipe Fittings Mart, 77, Netaji Subhas Rd., Calcutta 700001.

Blue Star Ltd., 414/2, V. Savarkar Marg, Bombay 400025.

C.B. Trading Co., 198, L. Tilak Mrg., Sardar Griha Bldg., Bombay 400002.

C. Bole & Co., 61, Narayan Dhuru St., Bombay 400003.

C. Vadilal & Co., 40, Nagdevi X Lane, Bombay 400003.

Chhotalal & Sons, 141, Narayan Dhuru St., Bombay 400004.

Commercial Trade Corpn., 81, C.P. Tank Rd., Bombay 400004.

Crescent Trading Co., 48-50, Bhajipala St., Bombay 400003.

D.L. Vaid, 181, Janjikar St., Bombay 400003.

Dipnal Valve & Tubestos Co., 84/86, Nagdevi St., Bombay 400003.

Equipment Fabricators & Traders, 753, Mount Rd., Madras 600002.

G.K. Kansara, 118, Kansara Chawl, Kalbadevi Rd., Bombay 400002.

Govardhandas P.A., 144, Nagdevi St., Bombay 400003.

Greenway Traders, 68/70, Nagdevi St., Bombay 400003.

Gujarat Tube & Hardware Mart, 24, Nagdevi X Lane, Bombay 400003.

Indian Engineers, 1/37, Roopnagar, Delhi 110007.

Indo Industrial Agency, 34, Nagdevi St., Bombay 400003.

Indl. Marketing Services, Jiji House, Ravelin St., Bombay 400001.

Industrial Valves, H.10/9th Flr., Everest, Tardeo, Bombay 400034.

International Sales (India), 27, Unique Ind. Estate, V. Savarkar Marg, Prabhadevi, Bombay 400025.

K.B. Corpn., Jaldarshan, Ashram Rd., Ahmedabad 380009.

K.D. Naina & Co., 7/8, Tardeo Air-Conditioned Mkt., Bombay 400003.

Kadakia Enterprise, 153, N. Dhuru St., Bombay 400003.

Lehry Bros., 17, Sembudoss St., Madras 600001.

Mehta Bros. & Co., 54, Nagdevi X Lane, Bombay 400003.

Mehta Mill Gin Stores, 28, Nagdevi St., Bombay 400003.

Mehta Nanavati & Co., 96, Narayan Dhuru St., Bombay 400003.

Metro Tube Trading Co., 131/35, N. Dhuru St., Bombay 400003.

Mody Bros. & Co., 52, Nagdevi X Lane, Bombay 400003.

Muljibhai & Co., 76/78, Nagdevi St., Bombay 400003.

New India Refrigeration Stores (Regd.), 308/5, Shahzada Bagh, Opp. Daya Basti Rly. Stn., Old Rohtak Rd., Delhi 110036.

Nowgarh Trading Co., 8, Morland Rd., Bombay 400011.
Pankaj Trading Corpn., 25, Bibijan St., Bombay 400003.
Paras Engrs., 263, Nagdevi St., Bombay 400003.
Patel Bros. & Co., 41, Nagdevi X Lane, Bombay 400003.
Rajiv Corpn., 61-73, Narayan Dhuru St., Bombay 400003.
Rajnikant & Co., 53, Bhajipala Lane, Bombay 400003.
S. Sevantilal & Co., 246, Y. Meheralli Rd., Bombay 400003.
Shakti Sales Corpn., 70, Chakla St., Bombay 400003.
Shankar Trading Co., 38, Linghi Chetty St., Madras 600001.
Standard Tube Co. Pvt. Ltd., 123, Nagdevi St., Bombay 400003.
Super India Sales Corpn., 2853, Peepal Mahadev, Hauz Khas, Delhi 110006.
Swanlee Agencies, 3-A, Vasu St., Kilpauk, Madras 600010.
Swastik Trading Co., 152, N. Dhuru St., Bombay 400003.
Tru-A Line, 24, Kariappa Mudali St., Madras 600007.
United Trading Agency, 116, N. Dhuru St., Bombay 400003.
Universal Mercantile Corpn., 109-111, Nagdevi St., Bombay 400003.
Venus Trading Corpn., 502, Loha Bhavan, P. D.'Mello Rd., Bombay 400009.
Vijay Trading Corpn., 152, N. Dhuru St., Bombay 400003.

WEIGHING MACHINES

A. A. Katawalla, 194, Janjikar St., Bombay 400003.
Associated Services, 1170/1, Junglee Maharaj Rd., Pune 411005.
B. Ganapathi Bhandarkar, 176, Golikatta Bazar, Mangalore 575001.
Bhuvaneswari & Co., 100, Armenian St., Madras 600001.
Blue Star Ltd., Band Box House, Dr. A. Besant Rd., Bombay 400025.
Hindustan Scale Co., 186-188, Janjikar St., Bombay 400003.
M. Framroze & Co., 210, Dr. D. Naoroji Rd., Bombay 400001.
Misrilal Motilal, 71, Sarang St., Bombay 400003.
Sri Venkateswara Scales Co., 79, Acharappan St., Madras 600001.
Sujaddin & Co., 75, Netaji Subhas Rd., Calcutta 700001.

WELDING EQUIPMENT

A.S. Industrial Gases Ltd., 5008, Bazar Sirkiwalan, Hauz Qazi, Delhi 110006.
Alps Trading Co., 49/57, Bibijan St., Bombay 400003.
Amar Mercantile Agency, 77/79, N. Subhas Rd., Calcutta 700001.
Arc Brazer Pvt. Ltd., 84, Foras Rd., Bombay 400008.
Arde Electrical Engg. Pvt. Ltd., 522, Maker Chambers V, Nariman Point, Bombay 400021.
Blue Diamond Engg. Corpn., Stock Exchange New Bldg., Dalal St., Bombay 400023.
Bomcal Syndicate, 526A, N. Subhas Road, Mulund West, Bombay 400080.
EPS Craft Pvt. Ltd., 106, V. Dalvai Indl. Estate, Oshiwara, S. V. Rd., Jogeshwari West, Bombay 400102.
Hasmukh & Hasmukh, 5, Sobha Sadan, 8, Jawahar Nagar, S. V. Rd., Goregaon, Bombay 400062.
Impex Engg. & Equipment Co., 138/140, N. Dhuru St., Bombay 400003.
Industrial Distributors, 135-A, Maulana Azad Rd., Bombay 400008.
Industrial Equipment Suppliers, 58, N. Subhas Rd., Calcutta 700001.
Industrial Products, F/15, Nandjyot Ind. Estate, Kurla Andheri Rd., Bombay 400072.
Industrial Steel & Hardware Stores, 85, Netaji Subhas Rd., Calcutta 700001.
Jayprakash & Sons, 57, Sutar Chawl, Bombay 400002.
J. B. Advani & Co. (Mysore) Pvt. Ltd., Unity Bldgs., J. C. Wadiyar Rd., Bangalore 560002.
Jyoti Welding Corpn., Post Box No. 2169, Bombay 400002.
Kirtikumar Electric Corpn., 12, Tavawala Bldg., Lohar Chawl, Bombay 400002.
M. N. Hussein & Co., 90, Armenian St., Madras 600001.
Machinery Marketing Corpn., 261, Dr. D. N. Rd., Bombay 400001.
Madras Associated Agencies, 41, Nelson Manicka Rd., Madras 600029.
Mahendra Bros., 163-B, Sheth Motishah Le., Byculla, Bombay 400027
Malhotra Gas House, 6070/8, Barri Mkt., Sadar Bazar, Delhi 110006.
Manish Agency, 357, Sardar V. P. Rd., Bombay 400004.
Mehta Doshi & Co., 334, Thambu Chetty St., Madras 600001.
Mehta Trading Co., 60, Sarang St., Bombay 400003.
Metasafe Trdg. Corpn., 65, Apollo St., Bombay 400023.
N.B. Khara & Co., Maskati Mahal, 119, K.M. Sharma Mrg., Bombay 400002.
Navin Trading Co., 40, Strand Rd., Calcutta 700001.
Poonam Trading Co., 133, Lenin Sarani, Calcutta 700013.
Prakash Traders, 8, Parsee Church St., Calcutta 700001.
Premier Engg. Co., 20, Broadway, Madras 600001.
Reliable Trading Agency, 23, B.R.B.B. Rd., Calcutta 700001
Roopmeck Enterprises, 29, Ashish Ind. Estate, Gokhale Rd. South, Bombay 400025.
Sai Baba Gas Service, G-23, Mun. Mkt., Near Telephone Exchange, Chembur Naka, Bombay 400071.
Sisko Supply & Engg. Corpn., 42/1, Strand Rd., Calcutta 700007.
South Mill Stores Co., 10/141, Dr. Nanjappa Rd., Coimbatore 641018.
Unique Trading Co., 182, Kalbadevi Rd., Bombay 400002.
Vharawdekar Bros., 257, P. D'Mello Rd., Bombay 400001.
Weld-Tech Corpn., 28, Ashokraj, S.V. Rd., Goregaon West, Bombay 400062.
Welding Equipment Traders, 29/21, Gate No. 6, New Rohtak Rd., Ind. Area, New Delhi 110005.

WIRE ROPES

Abdulhusein Peerbhai & Sons, 66-68-A, N. Kohli Mrg., Bombay 400003.
Amratlal Chhaganlal & Co., 143, Nagdevi St., Bombay 400003.
Eastern Stores & Trading Co. Ltd., 115-A, Nagdevi St., Bombay 400003.
Esoofali Esmailji Karachiwalla & Co., 43-45, Narayanrao Koli Marg, Bombay 400003.
Gautam Trading Co., 184, Nagdevi St., Bombay 400003.
Heptoola Nooruddin & Co., 154, Nagdevi St., Bombay 400003.
J. Ebrahim & Co. Pvt. Ltd., 345, Katha Bazar, Bombay 400009.
Jivraj & Vrajlal, 122, Nagdevi St., Bombay 400003.
Modi & Modi Co., 16, A. Doshi Mrg., Bombay 400023.
Vasi Shums & Co. Pvt. Ltd., Vasi Bldg., Nagdevi St., Bombay 400003.
Western India Marine Mills & Engrs., 185, Janjikar St., Bombay 400003.

WORKSHOP MACHINERY

(See under Machine Tools & Workshop Machinery).

SERVICES

ADVERTISING AGENCIES

Andhra Pradesh

Associated Advtrs. & Printers, 5-9-1105, King Kothi Rd., Hyderguda, Hyderabad 500001.

Kiron Ads., 5-4-187/2/6, M.G. Rd., Secunderabad 500003.

Margadarsi Group of Companies, Margadarsi House, Abid Centre, Hyderabad 500001.

Delhi

Advertising & Sales Promotion Co., 26, Barakhamba Rd., New Delhi 110001.

Asian Advtg., H-35, Connaught Circus, New Delhi 110001.

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Naren Advtg. & Mktg., P. Dhanjibhoy Bldg., Bhadra, Ahmedabad 380001.

Navnitlal & Co., 1161, Bhadra, Ahmedabad 380001.

Paramount Publicity Co., Jainwadi, Manekchowk, Ahmedabad 380001.

Publicity Parlour, Singaporewala Bldg., Khadia Char Rasta, Ahmedabad 380001.

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Adroit Advtg., Ismail Bldg., Dr. D.N. Rd., Bombay 400001.

Advertising & Marketing Associates, 35, Prospect Chambers Annexe, 3rd Flr., Dr. D.N. Rd., Bombay 400001.

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Amol Bose Advtg., Arsiwala Bldg., 61, Wodehouse Rd., Bombay 400005.

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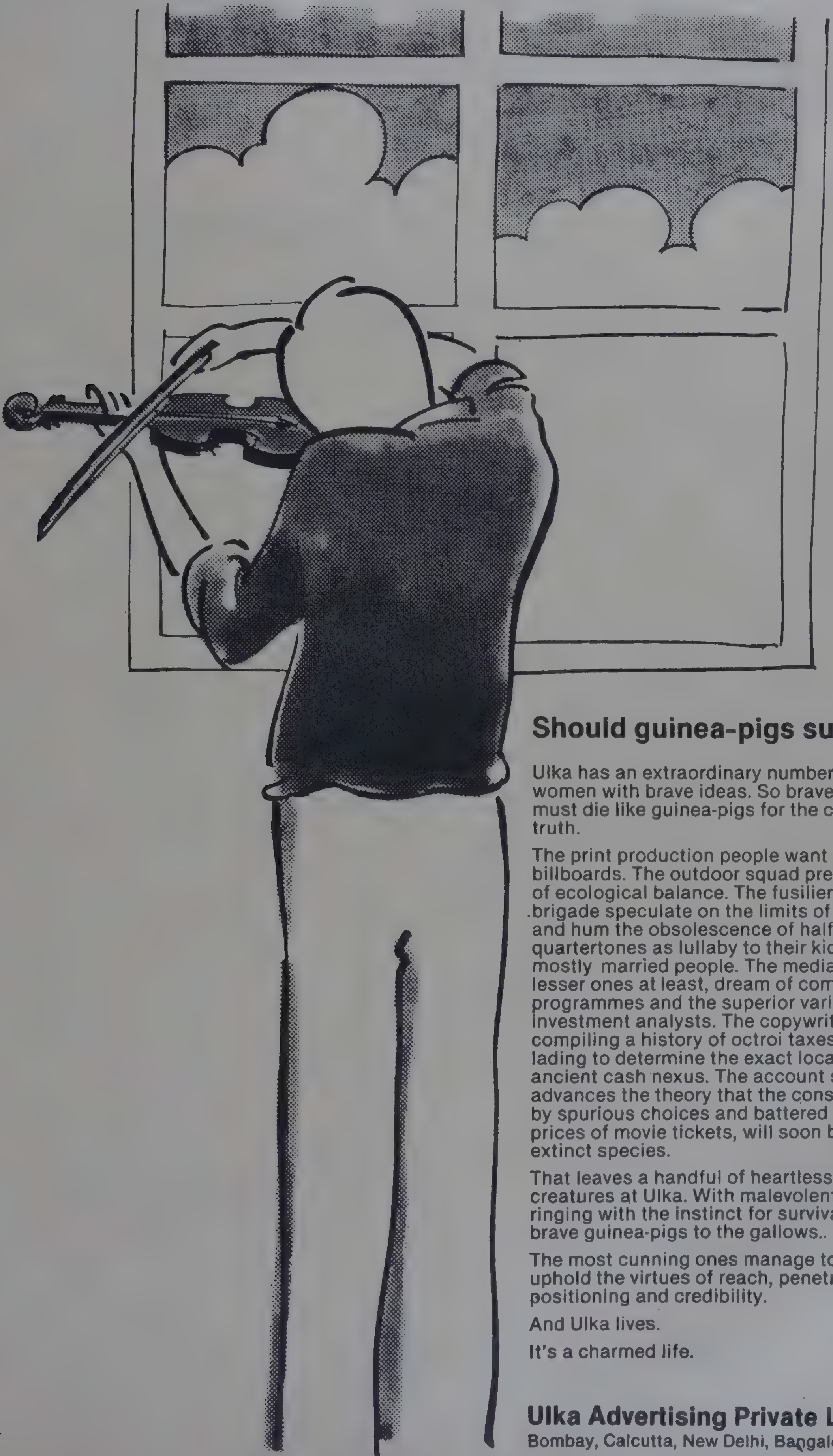

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KLM Royal Dutch Airlines, 198, J. Tata Rd., Bombay 400020.

Kuwait Airways Corpn., 82, V. Nariman Rd., Bombay 400020.

Lufthansa German Airlines, Express Towers, Nariman Point, Bombay 400020.

Malaysian Airline System, Air India Bldg., Nariman Point, Bombay 400021.

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Ariana Afghan Airlines Co. Ltd., 19, K. Gandhi Mrg., New Delhi 110001.

Ethiopian Airlines, Janpath Hotel, New Delhi 110002.

Gulf Air, Janpath Hotel, New Delhi 110002.

Qantas Airways Ltd., Janpath, New Delhi 110002.

Royal Nepal Airlines, 44, Janpath, New Delhi 110002.

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Raj Anodizing Works, Mun. Indl. Estate, Gala No. 47, 1st Flr., West Bapty Rd., Bombay 400008.

Rekha Engg. Works, 6-A, Favourite Indl. Estate, Masrani Lane, Kurla, Bombay 400070.

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Bennet & Co., 120, Apollo St., Bombay 400023.

Chowringhee Sales Bureau Pvt. Ltd., 24-B, Park St., Calcutta 700016.

Gilbert Lodge & Co., Elphinstone Bldg., V. Nariman St., Bombay 400001.

S.M.G. Beaty Pvt. Ltd., D-9, Connaught Place, New Delhi 110001.

BANKS

(Head Offices) (Banks with asterisks are nationalised).

Algemene Bank Nederland (ABN), 14, V. Nariman Rd., Bombay 400023.

*Allahabad Bank, 2, Netaji Subhas Rd., Calcutta 700001.

American Express International Banking Corpn., Dalamal Towers, 221, N. Point, Bombay 400021.

*Andhra Bank, Sultan Bazar, Hyderabad 500001.

Bank of America National Trust & Savings Association, Air India Bldg., 16th Flr., N. Point, Bombay 400021.

*Bank of Baroda, Mandvi, Vadodara 390001.

Bank of Cochin Ltd., Post Box 1938, Ernakulam South, Cochin 682018.

*Bank of India, Express Towers, 14th Flr., N. Point, Bombay 400021.

Bank of Madura Ltd., Madurai 625001. (T. Nadu).

*Bank of Maharashtra, 'Lokmangal', 1501, Shivajinagar, Pune 411005.

Bank of Oman Ltd., 4-6, Maker Arcade, Cuffe Parade, Colaba, Bombay 400005.

Bank of Rajasthan Ltd., Udaipur Kendriyalaya, Jaipur 302001.

Bank of Tokyo Ltd., Jeevan Prakash, Sir P. Mehta Rd., Bombay 400001.

Banque National De Paris (French Bank), 62, Homji St., Bombay 400001.

Bombay Mercantile Co-operative Bank Ltd., 78, Mohamedali Rd., Bombay 400003.

British Bank of the Middle East, 16, Veer Nariman Rd., Bombay 400023.

*Canara Bank, Canara Bank Bldg., 112, Jayachamarajendra Rd., Bangalore 560002.

INDIAN OVERSEAS BANK

MERCHANT BANKING DIVISION
A financial brains trust you can call on.
IOB's Merchant Banking services include :
Project counselling including suggesting suitable locations, technical consultants/collaborators, financing pattern, tax-benefits, etc.
Preparation of feasibility reports.
Preparation of term loan application forms for submission to term lending institutions.
Syndication of loans.
Shares, Bonds and Debentures issue management including underwriting.
Appraisal and arrangement of working capital facilities.
Modification/restructuring of capital base.
Arranging foreign currency loans.
Overseas civil construction projects and joint ventures — package of Merchant Banking Services including advice on relevant governmental regulations, scope, benefits, etc.
Portfolio management of Shares and Debentures especially for non-residents.
Acting as Agents and Trustees to Debenture holders

Indian Overseas Bank
Good people to grow with

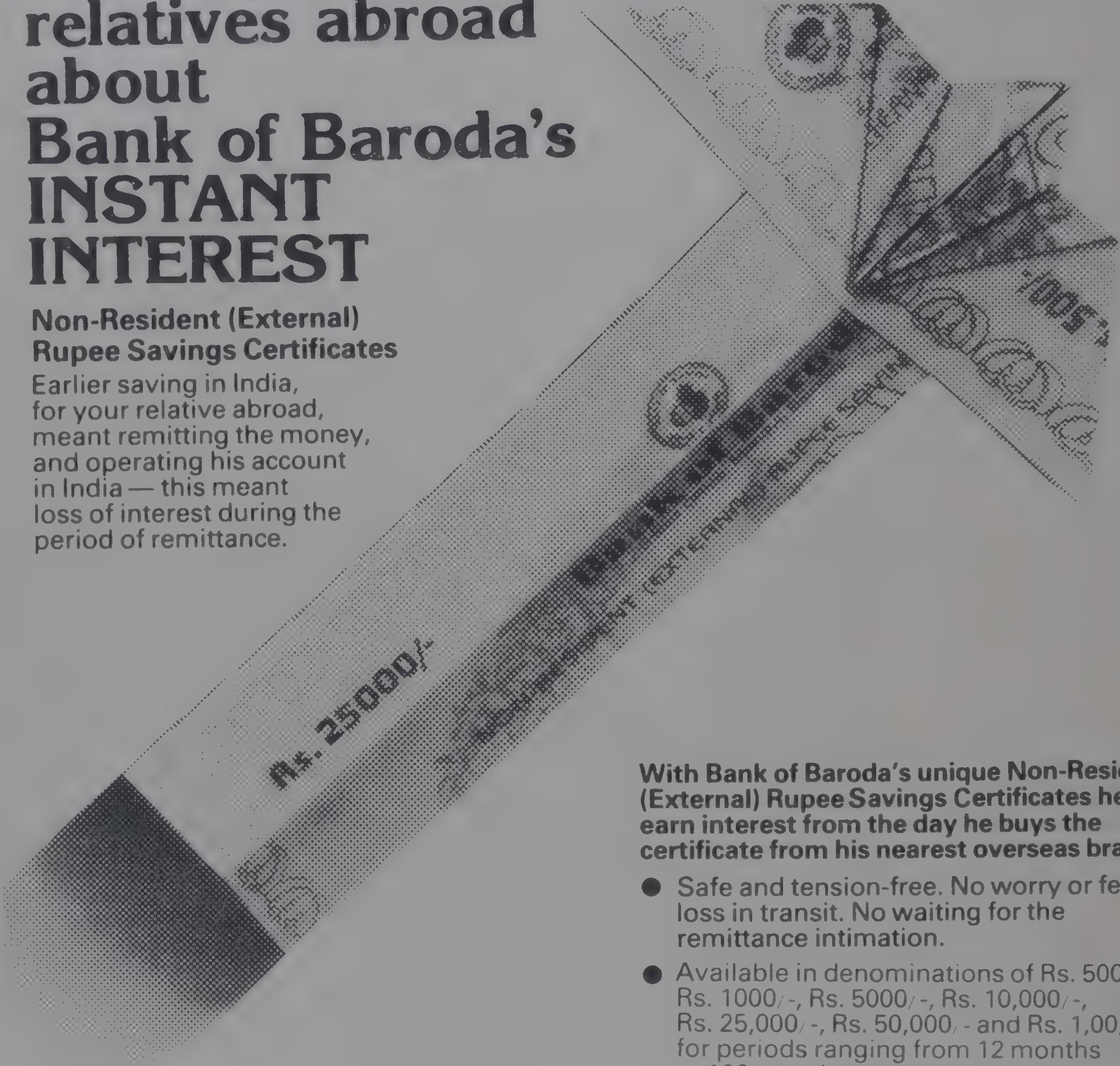
To call in our specialist team contact :

The Chief Manager, Merchant Banking Division
Central Office, Indian Overseas Bank
762, Anna Salai, Madras 600 002.
Phone : 811993.

Inform your relatives abroad about Bank of Baroda's INSTANT INTEREST

Non-Resident (External) Rupee Savings Certificates

Earlier saving in India, for your relative abroad, meant remitting the money, and operating his account in India — this meant loss of interest during the period of remittance.



With Bank of Baroda's unique Non-Resident (External) Rupee Savings Certificates he can earn interest from the day he buys the certificate from his nearest overseas branch.

- Safe and tension-free. No worry or fear of loss in transit. No waiting for the remittance intimation.
- Available in denominations of Rs. 500/-, Rs. 1000/-, Rs. 5000/-, Rs. 10,000/-, Rs. 25,000/-, Rs. 50,000/- and Rs. 1,00,000/- for periods ranging from 12 months to 120 months.
- Interest at 13% p.a. compounded quarterly for 60 months and above. 12% interest for shorter durations.
- Interest is free from Indian Income Tax and Wealth Tax, without limits.
- The depositor will be eligible for pre-mature payment and overdraft, against the certificates, at a slight loss of interest.
- Repayable either at the issuing branch or bank's head office, or any two Indian branches of depositor's choice.
- No service charges. These facilities are offered at no extra cost.

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THE TWO-IN-ONE SAVINGS
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(A Government of India Undertaking)

Central Office: 3, Walchand Hirachand Marg,
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Chairman & Managing Director

S. S. Master
Executive Director

S. M. Desai
Representative, Workmen Employees

R. M. Desai
Representative, Non-Workmen Employees

Bhag Singh
C. Ramakrishna
Virinder Mehta
P. K. Choksey
Narendra I. Bhuva
Bansi Lal Mehta
K. S. Taragi
Hazarilal Sharma

Dr. Y. B. Damle
Adviser, Management Service Department,
Reserve Bank of India, Bombay.

Ashok Chandra
Joint Secretary, Ministry of Finance,
Department of Economic Affairs
(Banking Division), New Delhi.

EXECUTIVES:

General Managers:
Dr. A. C. Shah
K. N. Dastoor
L. B. Bhide
J. N. Daulatjada
K. Kannan
K. S. Vaitheeswaran
K. C. Chokshi

Deputy General Managers:
D. J. Kapadia
B. K. Mukherjee
M. K. Bose
B. R. Shah
V. R. Pandit
A. A. Raval
R. C. Bhatt
K. R. Patel
P. R. V. K. Rao

BANK'S WORKING RESULTS:

(As at December 31, 1982)

Global Deposits : Rs. 4,251 crores
Owned Funds : Rs. 37.79 crores
Net Profits : Rs. 8.05 crores

Bank's International Division:
Mackinnon & Mackenzie Building,
Shoorji Vallabhdas Marg,
Ballard Pier, Bombay 400 038.

OVERSEAS OFFICES/BRANCHES:

Belgium : Brussels
Fiji Islands : Ba, Labasa, Lakeba, Lautoka, Nadi, Raki Raki, Sigatoka, Suva. (Mobile Branches at Ba, Sigatoka and Suva)
U.S.A. : New York
Bahamas : Nassau
Guyana : Georgetown, New Amsterdam
Kenya : Kisumu, Digo Road-Mombasa, Makadara Road-Mombasa, City Square-Nairobi, Nairobi (Main), Thika. (Mobile Branch at Kisumu)
Mauritius : Curepipe, Port Louis, Quatre Bornes, Rose Hill, Vacoas. (Mobile Branch at Port Louis)
Seychelles : Victoria, Mahe
United Kingdom : Bolton, Bradford, Brent Wembley, Coventry, Croydon, Handsworth/Birmingham, Ilford, Kilburn, London, Luton, Manchester, Slough, Southall, Streatham, Whitechapel
U.A.E. : Shaikh Zayed Road, Abu Dhabi, Shaikh Khalifa Street, Abu Dhabi (Main), Deira, Dubai, Fujairah, Ras-Al- Khaimah, Sharjah, Umm-Al-Quwain
Sultanate of Oman : Mutrah, Ruwi, Salalah
Bahrain : Manama
Hongkong : IBU International Finance Ltd.
Australia : Representative Office at Sydney.

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Over 1800 branches in India and abroad.

Sobhagya-BOB/83

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Mr. N. G. Pamnani, Vice-President & Chief Executive Officer, Air India Building, Floor 9.
Nariman Point, Bombay 400 021. Phone: 2021545.

Operations in India

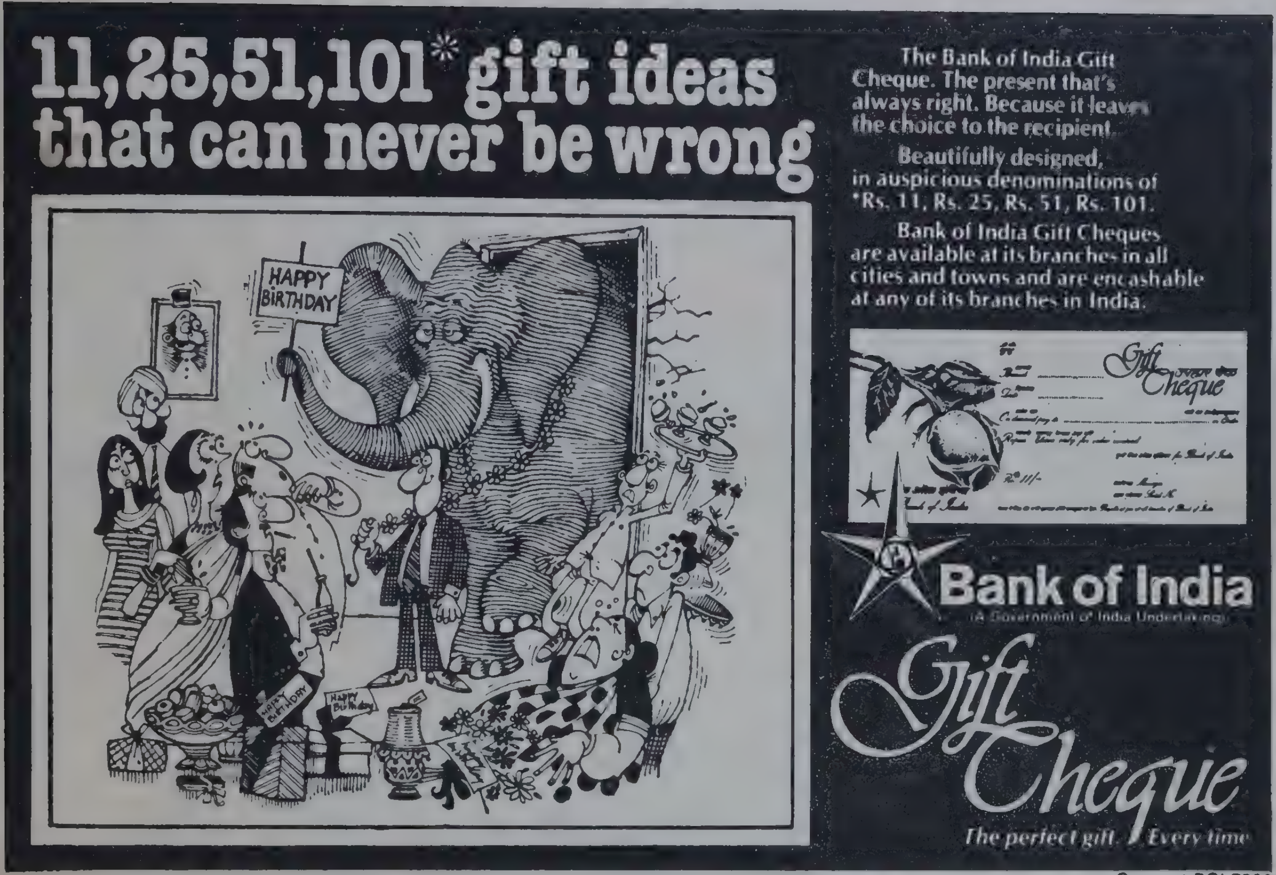
At Bombay : 293, Dr. D. N. Road, Bombay 400 001. Phone: 258792.
Telex: 011-2288. P.O. Box 175.
In-charge Marketing Operations : A. Somasekhar, Vice-President/V. Mathew, Vice-President.
B. B. Sarpeshkar, Vice-President.
Also at : Air India Bldg., Ground Floor, Nariman Point, Bombay 400 021.
Phone: 2022380.

At New Delhi : 3, Sansad Marg, New Delhi 110 001. Phone: 311116.
Telex: 031-2332. P.O. Box 520.
In-charge Marketing Operations : T. P. Ivanyi, Vice-President.
S. Banerji, Asst. Vice-President.

At Calcutta : 43, Chowringhee Road, Calcutta 700 071. Phone: 448321.
Telex: 021-7040/7346. P.O. Box 9213
In-charge : R. K. Aggarwal, Vice-President.
Also at : 9, Brabourne Road, Calcutta 700 001. Phone: 267336.

At Madras : 768, Anna Salai, Madras 600 002. Phone: 2233.
Telex: 041-326. P.O. Box 2235.
In-charge Marketing Operations : R. Bhatia, Asst. Vice-President.
H. S. Dugal, Manager.

Over 80 years of service in India.



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The Bank of India Gift Cheque. The present that's always right. Because it leaves the choice to the recipient.

Beautifully designed, in auspicious denominations of *Rs. 11, Rs. 25, Rs. 51, Rs. 101.

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Gift Cheque
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Concept-BOI-7801

**We're
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**Open an account with us and
avail of our highly Efficient
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CENTRAL OFFICE: JAIPUR.**

**J. N. PATHAK
CHAIRMAN.**

Don't say, you don't know Federal Bank.

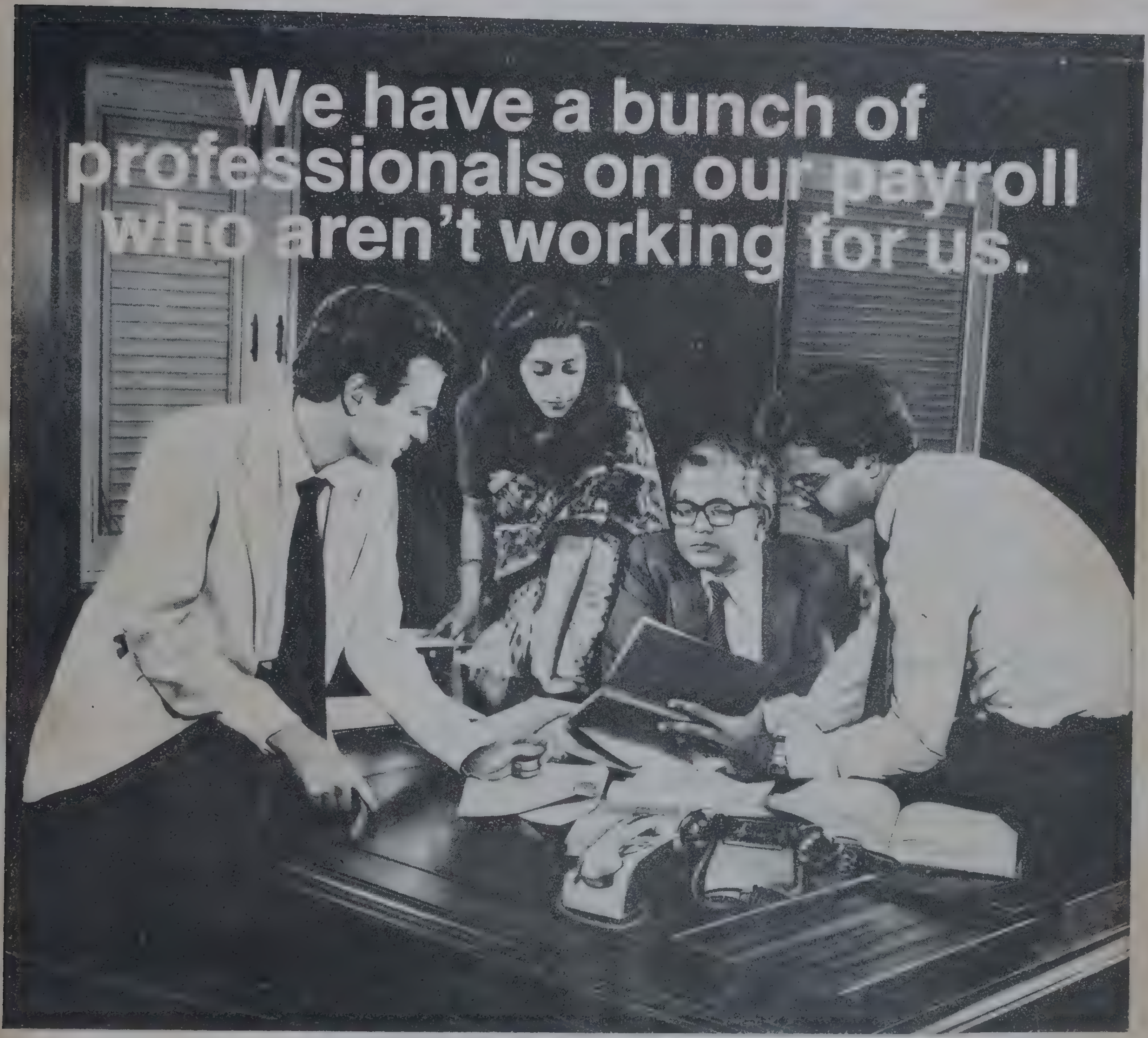
Especially when Federal Bank's deposits have grown over 20 times in 10 years. It is the youngest Bank in the non-nationalised sector. From 1972 to 1982, the deposits leapt from Rs. 11 crore to Rs. 224 crore. As on July 31, 1983 the deposit is Rs. 236 crore and will touch Rs. 276 crore during the current accounting year.

And more branches too : from the mere 32 to 309 branches, all over India.

THE FEDERAL BANK LIMITED Regd. Office: Alwaye, Kerala

Banking efficiency at its best

ASP-FBL-787A


We have a bunch of professionals on our payroll who aren't working for us.

Finding a solution — left to right: Alain Massiera (Manager International Finance), Naina Lal (Consultant), Aloke Ganguli (Manager for India Merchant Banking Division) and Arvind Sethi (Corporate Dealer)

They're working for you.

Grindlays Bank p.l.c.
Incorporated in the United Kingdom
The liability of members is limited

ASP/MBD/1183/156A

Our top-flight team of Merchant Bankers pool their considerable innovative talents to meet your specific requirements. These experts have what it takes to successfully offer a full range of corporate financial services.

These include project feasibility appraisals, project finance, corporate finance including issue management and underwriting, and leasing. In addition, what they offer is top-flight advice on Eurocurrency and export finance, drawing on the expertise of our global network of offices.

As India's leading Merchant Bank since 1969, Grindlays brings the advantages of international merchant banking expertise to the regional markets of India through full-fledged Merchant Banking offices in Bombay, Calcutta, New Delhi and Madras.

At Grindlays we pay our merchant banking experts their salaries ... but in fact, they are working for you.

Addresses of our Merchant Banking Division

BOMBAY: 270 Dr. D.N. Road, P.O. Box 1330, Bombay 400 001 Tel 265681

CALCUTTA: 19 Netaji Subhas Road, P.O Box 218, Calcutta 700 001 Tel 228346

NEW DELHI: H Block, Connaught Circus, P.O Box 317, New Delhi 110 001 Tel 320421

MADRAS: 19 Rajaji Salai, P.O Box 297, Madras 600 001. Tel 20036

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(The First Development Bank established in 1948 soon after Independence)

★ Provides direct financial assistance in the form of rupee and foreign currency loans, underwriting and/or direct subscription to shares/debentures as also guarantees for deferred payments and foreign loans to all eligible medium and large-sized industrial projects set up or proposed to be set up in the country in the corporate and/or co-operative sectors.

HIGHLIGHTS OF DIRECT FINANCING OPERATIONS (Upto 30th June, 1983)

	Total number	Assistance sanctioned
— Projects assisted	1,705	Rs. 1,818 crores
— Projects assisted in notified less developed districts/areas..	728	Rs. 847 crores
— Projects assisted in the co-operative sector ..	236	Rs. 247 crores
— Projects promoted by new Entrepreneurs/Technicians	233	Rs. 136 crores

★ Helps through its promotional schemes and specialised agencies in the development of entrepreneurship in the rural/tribal and small scale sectors as also the growth of rural, tiny and small scale industries.

PROMOTIONAL SCHEMES OF IFCI INCLUDE

— Scheme of subsidy for encouraging the adoption of indigenous technology.
— Scheme of subsidy to new entrepreneurs for meeting cost of market studies.
— Scheme of subsidy to small entrepreneurs for meeting cost of feasibility studies, etc.
— Scheme of subsidy for promotion of ancillary and small scale industries.
— Scheme of subsidy for revival of sick units in the tiny and small scale sectors.
— Scheme of assistance for self-development and self-employment of unemployed young persons.

Special consideration under IFCI's Promotional Schemes is available to the scheduled caste/scheduled tribe and physically handicapped entrepreneurs.

SPECIALISED AGENCIES SET UP BY IFCI

★ Technical Consultancy Organisations (TCOs) established in Himachal Pradesh, Rajasthan and Madhya Pradesh to guide and counsel the promoters in all aspects of project cycle.

★ Risk Capital Foundation (RCF) established at New Delhi to help new entrepreneurs in raising promoters' equity.

★ Management Development Institute (MDI) alongwith Development Banking Centre (DBC) sponsored to provide training in modern management techniques and development of managerial skills in different sectors of industry.

Entrepreneurial Guidance available at all offices of IFCI

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Chartered Bank, New Excelsior Bldg., A.K. Naik Mrg., Bombay 400001.

Citibank N. A., Air India Bldg., 9th Flr., Nariman Point, Bombay 400021.

*Corporation Bank, Mangalore 575001.

*Dena Bank, 85, Cuffe Parade, Colaba, Bombay 400005.

Emirates Commercial Bank Ltd., Rehmat Manzil, 75B, Nariman Rd., Bombay 400020.

European Asian Bank, Tulsiani Chambers, N. Point, Bombay 400021.

Federal Bank Ltd., Alwaye 683101. (Kerala).

Grindlays Bank p.l.c., 90, M. Gandhi Rd., Bombay 400023.

Hongkong Bank Ltd., 52/60, M. Gandhi Rd., Bombay 400023.

***Indian Bank, 31, Rajaji Rd., Madras 600001.**

*Indian Overseas Bank, 762, Anna Salai, Madras 600002.

Karur Vysya Bank Ltd., Karur 639001 (T. Nadu).

Maharashtra State Co-op. Bank Ltd., 9, Bakehouse Lane, Bombay 400001.

Mitsui Bank Ltd., 6, Wallace St., Bombay 400001.

*New Bank of India, 1, Tolstoy Mrg., New Delhi 110001.

*Oriental Bank of Commerce, E Block, Conn. Place, New Delhi 110001.

*Punjab National Bank, Parliament St., New Delhi 110001.

*Punjab & Sind Bank, B45/47, Connaught Place, New Delhi 110001.

Sonali Bank, 15, Park St., Calcutta 700016.

South Indian Bank Ltd., Trichur 680001. (Kerala).

State Bank of India, New Adm. Bldg., Madame Cama Rd., Bombay 400021.

*Syndicate Bank, Manipal 576119. (Karnataka).

*Union Bank of India, Union Bank Bldg., 239, Backbay Reclamation, Bombay 400021.

*United Bank of India, 16, Old Court House St., Calcutta 700001.

*United Commercial Bank, 10, Brabourne Rd., Calcutta 700001.

*Vijaya Bank, 2, Residency Road, Bangalore 560025.

Vysya Bank Ltd., Avenue Rd., Bangalore 560002.

BLOCK MAKERS

Adwell, Krishna Bhavan, 11, Bhuleshwar Rd., Near Cotton Exchange, Bombay 400002.

Bombay Art Printers, Near Safed Pul, Kurla-Andheri Rd., Bombay 400072.

Bombay Process Studio, Crescent Chambers, Tamarind Lane, Bombay 400023.

Bharat Studio, 109, Mount Road, Madras 600018.

Commercial Art Engravers Pvt. Ltd., Sane Guruji Premises, 386, V. Savarkar Marg, Bombay 400025.

Express Block & Engraving Studios Pvt. Ltd., Mustafa Bldg., Sir P. Mehta Rd., Bombay 400001.

National Blocks, 356, Girgaum Rd., Bombay 400002.

Novelty Process Studio, 17, Khambata Lane, Khetwadi Back Rd., Bombay 400004.

Pandit Process Studio, Block 15, 2nd Flr., Prabhadevi Indl. Estate, V. Savarkar Rd., Bombay 400025.

Rapid Process Works, 306, Kalbadevi Rd., Kakad Market, Bombay 400002.

Rexen Free, Process Block Makers, 3, State Bank St., (Opp. Midland), Mount Rd., Madras 600002.

Salian Brothers, 161, Bora Bazar St., Bombay 400001.

Solar Process Studio, 22, Apollo St., Bombay 400023.

Sun Process Works, 8, Swadeshi Mills Comp., Tata Rd., Off New Queen's Rd., Bombay 400004.

The Times of India Press, Dr. D. N. Rd., Bombay 400001.

BUILDING SPECIALISTS

CONTRACTORS

Andhra Pradesh

Allied Construction Co., 6-3-898, Somajiguda, Hyderabad 500001.

Associated Engg. Enterprise, 10, Venkateswara Colony, Narayanaguda, Hyderabad 500001.

Premier Construction Co., 20, Lalbahadur Stadium, Hyderabad 500001.

Udani Engg. Co. Pvt. Ltd., 1-1-269, Chikadpally, Hyderabad 500001.

Assam

S. C. Das & Co., D. C. Barucha Rd., Tarajan, Jorhat 785001.

Chandigarh

Chandigarh Construction Co., 204, Sector 9 C, Chandigarh 160017.

Uttam Singh Duggal & Co., 244, Sector 9 C, Chandigarh 160017.

Delhi

S. F. Engineer Group, 202, Nirmal Tower, 26, Barakhamba Rd., New Delhi 110001.

Gujarat

Jagdish Shah & Co., Ashok Niwas, Near Tower, Navsari 396445.

N. Kunwerji & Co., Kum Kum, Laxmiwadi, Main Rd., Rajkot 360001.

Paramount Constructions, Opp. Mandvi, Vadodara 390001.

Karnataka

Ferro Concrete Co. of India, Behind I.O.C. Petrol Pump, Saundatti, Belgaum 590001.

Structocrates, 4, 12th Cross, Malleswaram, Bangalore 560003.

Maharashtra

Acme Maintenance Services, Husena House, 157, Nagdevi St., Bombay 400003.

Arun Construction Co., Sunder Baug, Mathuradas Rd., Bombay 400067.

Associated Construction Co., 227-F, Kalbadevi Rd., Bombay 400002.

Bombay Builders Co. Pvt. Ltd., Mahendra Chambers (Empire Bldg.), 134, Dr. D. N. Rd., Bombay 400001.

Deepak Builders Pvt. Ltd., 201, Gundecha Chambers, N. Master Rd., Bombay 400023.

Eapen Verghese & Co., 38, Super Shopping Centre, S. Vivekanand Rd., Andheri, Bombay 400058.

Indian Prestress Corpn., 101, M. Gandhi Rd., Bombay 400023.

Jai Hind Construction Corpn., 1117, Ali Lakaki Rd., Pune 411002.

Jolly & Maker Pvt. Ltd., 222, Nariman Point, Bombay 400021.

Jolly Bros. Pvt. Ltd., Lakshmi Insurance Bldg., Sir P. Mehta Rd., Bombay 400001.

Jyoti Construction Co., 32/34, Dhanji St., Bombay 400003.

Khandelwal Builders Pvt. Ltd., Khandelwal House, Linking Rd., Malad West, Bombay 400064.

Levka Pvt. Ltd., Sleater Rd., Bombay 400007.

National Asphalt Products & Construction Co., Hill View, Mahul Rd., Chembur, Bombay 400074.

Patel Construction Co., Laxmi Nivas, Hanuman Rd., Bombay 400057.

Popular Construction Co., 37, Tagore Rd., Bombay 400054.

Pressure Piling Co. India Pvt. Ltd., Savoy Chambers, Wallace St., Bombay 400001.

Project Engineers, Shree Ram Indl. Estate, Katrak Rd., Bombay 400031.

Satyamurty Builders, Mayuri, 22, Tagore Rd., Santa Cruz West, Bombay 400054.

Shah Builders, 403, S.V. Patel Rd., Camp, Pune 411001.

Shah Construction Co. Ltd., Shah House, Shivsagar Estate, Dr. A. Besant Rd., Bombay 400018.

Shapoorji Pallonji & Co. Pvt. Ltd., New India Centre, 11th Flr., Madame Cama Rd., Bombay 400039.

Space Builders Pvt. Ltd., Jyoti Chambers, N. Natha St., Bombay 400009.

Vazifdar Builders Pvt. Ltd., Corinthian, Arthur Bunder Rd., Bombay 400005.

Meghalaya

Stephens Belle & Co., Warjri Lodge, Malki, Shillong 793001.

Rajasthan

Gadhoke Construction Co., 4, Manu Marg, Alwar 301001.

Moti Construction Co., Moti Bhavan, Neeti Marg, Ajmer 305001.

Tamil Nadu

East Coast Constructions & Inds., 1, Moores Rd., Madras 600006.

Eimco-K.C.P. Ltd., Ramakrishna Bldg., 38, Mount Rd., Madras 600002.

Essar Construction & Carriers Ltd., 306, T. Chetty St., Madras 600001.

Gladston Lyall & Co. Ltd., 108, Mount Rd., Madras 600018.

Simplex Concrete Piles (I) Pvt. Ltd., 17, Casa Major Rd., Egmore, Madras 600008.

Southern Engg. & Construction Co., 39, Bhagirathi Ammal St., Madras 600017.

Tarapore & Co., 175/1, Mount Rd., Madras 600002.

Wilson & Co. Pvt. Ltd., Chordia Mansions, 105A/2, Mount Rd., Madras 600002.

Uttar Pradesh

All India Construction Co., 123, North Vijayanagar Colony, Agra 282001.

D.S. Enterprises, Yadav Bhavan, Arya Nagar, Lucknow 226001.

Inder Nath & Co., Hing Ki Mandi Crossing, Agra 282001.

Jain Bros., Mitra Bhavan, Prempuri, Meerut 250001.

Pahuja Builders, 112 A, Lukergunj, Allahabad 211001.

Vijay Construction Co., 127, Anandpuri, Meerut City 250001.

West Bengal

Ajit Kumar Nayak & Co., 14, Natabar Dutta Row, Calcutta 700012.

Daw Mitra & Co., 5 & 6, Hare St., Calcutta 700001.

Kumar Narayan Pvt. Ltd., 28, Southern Ave., Calcutta 700026.

Prestressed Concrete & Shellroofs Pvt. Ltd., 10A, Harrington St., Calcutta 700016.

CONTRACTORS FOR GUNITE, GROUTING & COLLOIDAL CONCRETE

Bombay

Cementation Co. Ltd., Steelcrete House, D. Vachha Rd., Bombay 400020.

John Fleming & Co. Pvt. Ltd., 21, Bastion Rd., Bombay 400001.

Shah Construction Co. Ltd., Shah House, Dr. A. Besant Rd., Bombay 400018.

Calcutta

Cementation Co. Ltd., 5, Chowringhee Approach, Calcutta 700013.

Consolidated Pneumatic Tools Co. Ltd., 30, J.L. Nehru Rd., Calcutta 700016.

Heatly & Gresham (India) Ltd., 31, Chittaranjan Ave., Calcutta 700012.

Hindustan Construction Co. Ltd., 9, Syed A. Ali Ave., Calcutta 700017.

Mukherjee Bros., 1B, N. Mitra Row, Calcutta 700002.

Patel Engg. Co. Ltd., 3, Esplanade East, Calcutta 700001.

Madras

Gannon Dunkerley & Co. (Madras) Ltd., 337, Thambu Chetty St., Madras 600001.

PILING CONTRACTORS

Maharashtra

Foundation Corpn. of India, Meher House, 15, C. Patel St., Bombay 400001.

Pressure Piling Co. (India) Pvt. Ltd., Savoy Chambers, Wallace St., Bombay 400001.

Sewri Engg. Construction Co. Pvt. Ltd., Savoy Chambers, Wallace St., Bombay 400001.

Tamil Nadu

Coromandel Engg. Co., 52/53, Jehangir St., Madras 600001.

West Bengal

Central Engg. Syndicate, 32, G. Chandra Ave., Calcutta 700013.

Gammon India Ltd., 19, P. Barua Sarani, Calcutta 700019.

Simplex Concrete Piles (India) Pvt. Ltd., 55, Ezra St., Calcutta 700001.

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Assam

Bridge & Bldg. Corporation Pvt. Ltd., G.S. Rd., Ulubari, Gauhati 781001.

Bihar

Bhasin Construction Co. Pvt. Ltd., Blessington House, Kanke Rd., Ranchi 834001.

Bihar Prestressing Pvt. Ltd., 6, Beatson Rd., Bhagalpur 812001.

Hindustan Concrete & Allied Ind., Krishna Chowk, Station Rd., Patna 800001.

Delhi

Hindustan Housing Factory Ltd., Jangpura, New Delhi 110014.

Gujarat

Manibhai & Brothers, 28, N.B.K. Society, Anand 388001.

Karnataka

Indo-Swiss Corpn., 12, Palace Rd., Bangalore 560052.

Maharashtra

Gammon India Ltd., Gammon House, V. Savarkar Marg, Prabhadevi, Bombay 400025.

Hindustan Construction Co. Ltd., Construction House, Ballard Estate, Bombay 400038.

Indian Prestress Corpn., 101, M. Gandhi Rd., Bombay 400023.

Kayjay Engineers, 123, M. Gandhi Rd., Bombay 400023.

Killick Nixon & Co. Ltd., 31, Murzban Rd., Bombay 400001.

M.M. Bilaney & Co., 140, Medows St., Bombay 400023.

Patel Engg. Co. Ltd., Jogeshwari Estate, S. Vivekanand Rd., Jogeshwari, Bombay 400060.

Prestressing Corpn. of India, Vishwa 52, Sion West, Bombay 400022.

Sewri Engg. Construction Co. Pvt. Ltd., Savoy Chambers, Wallace St., Bombay 400001.

Shah Construction Co. Ltd., Shah House, Dr. A. Besant Rd., Bombay 400018.

Stup (India) Ltd., Advent, J. Bhonsle Mrg., Bombay 400020.

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Industrial Structures: Fertilizer Plants, Factories of all types, Cement Plants, Paper and Textile Mills, etc.

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High Rise Structures: Tall Buildings, Cooling Towers, Chimneys, Prilling Towers, Water Towers, etc.

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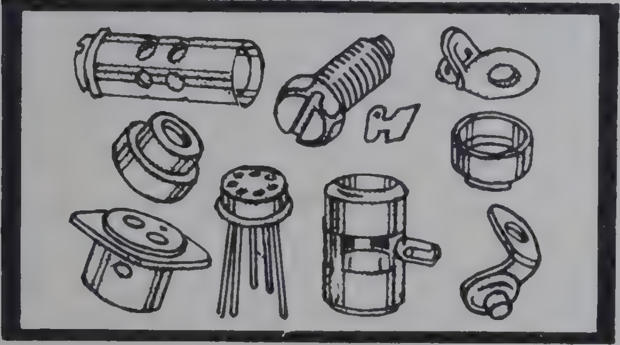

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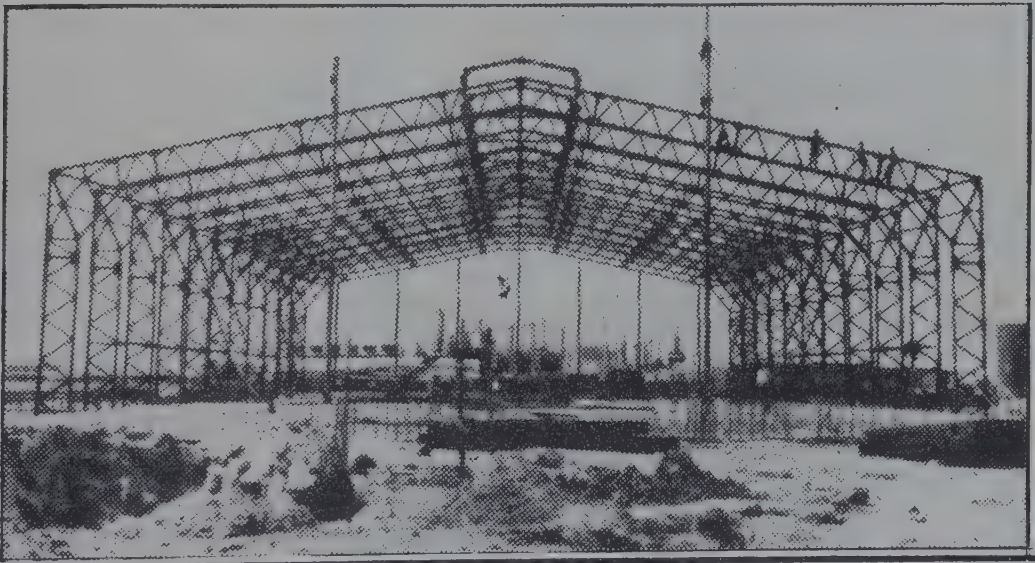

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Mrs. Girdhari Lal Maternity Hospital, J. L. Nehru Marg, New Delhi 110001.

Nature Cure Hospital, Jawahar Nagar, New Delhi 110007.

Navjeewan Clinic, 5/15, Ajmal Khan Rd , New Delhi 110005.

New Delhi Clinical Laboratory, E28, NDSE, Part II, New Delhi 110049.

New Delhi Polyclinic, K35, Connaught Circus, New Delhi 110001.

New Delhi Tuberculosis Centre, J. L. Nehru Marg, New Delhi 110001.

Ortho Fracture Clinic, 13, N. Subash Marg, New Delhi 110006.

Orthopaedic & Trauma (Accident) Clinic, 71, Ring Rd., Laj Nagar III, New Delhi 110024.

Prem Hospital, Hari Masjid, Pahar Ganj, New Delhi 110055.

Puri Maternity & Nursing Home, 2/21, Roop Nagar, New Delhi 110007.

Rajasthan Surgical Nursing Home, Prabhat Market, New Delh 110005.

Rajora Mission Hospital, 2906, S. R. Bazar, Delhi 110006.

Rana Nursing Home, JI/165, Rajouri Garden, New Delhi 110027.

Safdarjang Hospital, Safdarjang, New Delhi 110016.

Sahi Hospital, Mathura Rd., J. Pura, New Delhi 110014.

Sanghi's Nursing Home, C26, Green Park Extn., New Delhi 110016.

Sant Parmanand Blind Relief Mission, 18, Alipur Rd., Delhi 110006.

Sehgal's Nursing Home, B21, Kailash Colony, New Delhi 110048

Sethi Maternity Nursing Home, 74F, Kamla Nagar, New Delhi 110007.

Shroff's Charity Eye Hospital, Darya Ganj, New Delhi 110002.

Shyam Lal Eye Hospital, Dina-ka-Talab, Malka Ganj, New Delhi 110007.

Silver Jubilee Tuberculosis Hospital, Kingsway Camp, New Delhi 110009.

Sir Gangaram Hospital, Raj Nagar, New Delhi 110060.

Sondhi Nursing Home, 82A, Kamla Nagar, New Delhi 110007.

Srivastava Nursing Home, 5/3, Roop Nagar, Delhi 110007.

St. Stephen's Hospital, Tis Hazari, Delhi 110006.

Sunder Lal Jain Charitable Eye Hospital, 26, Darya Ganj, Sadar Bazar, New Delhi 110002.

Swami Dayanand Hospital, Shahdara, New Delhi 110032.

Tilak Nagar Hospital, Tilak Nagar, New Delhi 110015.

Tirath Ram Shah Hospital & Nursing Home, Rajpur Rd., Delhi 110006.

Tuberculosis Hospital, Mehrauli, New Delhi 110030.

Verma Eye Clinic, 776C, Nr. Radhu Cinema, New Delhi 110032.

Veterinary Hospital, Qudsia Rd., Delhi 110006.

Veterinary Hospital, Tis Hazari, Delhi 110006.

Victoria Zanana Hospital, Darya Ganj, New Delhi 110002

Willingdon Hospital, New Delhi 110001.

Worsley's Maternity Home & Clinic, 58, Darya Ganj, New Delhi 110002.

HOSPITALS—MADRAS

Arignar Anna Govt. Hospital of Indigenous Medicine, Arumbakkam, Madras 600029.

E. S. I. Hospital, 37, Madhavakkam Tank Rd., Madras 600023.

Govt. Chest Inst. & T.B. Demo. & Trg. Centre, Spur Tank Rd., Madras 600031.

Govt. General Hospital, L. G. Nagar Rd., Madras 600002.

Govt. Hospital for Women & Children, Egmore, Madras 600008.

Govt. Kasturba Gandhi Hospital for Women & Children, Madras 600005.

Govt. Kilpauk Medical College & Hosp., P. H. Rd., Madras 600010.

Govt. Royapettah Hospital, Madras 600014.

Govt. T. B. Sanatorium, Tambaram, Madras 400047.

Govt. Thiruvoteswarar T. B. Hospital, Konnur High Rd., Otteri, Madras 600012.

Inst. of Child Health & Hosp. for Children, Halls Rd., Madras 600008.

Raja Sir Ramaswamy Mudaliar's Lying-In Hospital, Kamraj Rd., Madras 600013.

Silver Jubilee Children's Clinic, 1, Jeenis Rd., Madras 600015.

Stanley Hospital, Old Jail St., Madras 600001.

Tamil Nadu Govt. Ophthalmic Hospital, Egmore, Madras 600008.

Tuberculosis & Chemotherapy Centre, Spur Tank Rd., Madras 600031.

HOT DIP GALVANISING

Indiana Engg. Works, Marol Naka, Andheri East, Bombay 400059.

Mek Galvanisers, Satyam, Naupada, M. G. Rd., Thane 400602.

Metalite Inds., 3, Ansari Rd., New Delhi 110002.

Sagar Steel Pvt. Ltd., 2/13, B.V.K. Iyengar Rd., Bangalore 560063.
Steelite Engg. Pvt. Ltd., 8, Nanabhai Lane, Bombay 400023.

HOTELS

(See also chapter on "A Tourist's Guide")
Agra (Uttar Pradesh)
Agra Hotel, 165, Cantt.
Holiday Inn.
Hotel Clarks Shiraz, 54, Taj Rd.
Lauries Hotel, M. Gandhi Rd.
Ahmedabad (Gujarat)
Cama Hotels Ltd., Khanpur Rd.
Gokul Hotel Pvt. Ltd., Opp. Piranshah Roza, Pankore Naka.
Hotel Alankar, Opp. Rly. Station.
Hotel Capital, Mirzapur Rd.
Hotel Capri, Tilak Rd.
Hotel Karnavati, Ashram Rd.
Natraj Hotel, Ashram Rd.
Ritz Hotel, Lal Darwaja.
Ahmednagar (Maharashtra)
Ashoka Tourist Hotel, King's Rd.
Hotel Vrindavan.
Allahabad (Uttar Pradesh)
Barnetts Hotel, 14, M. Gandhi Rd.
Almora (Uttar Pradesh)
Govt. Circuit House.
Ambala Cantt. (Haryana)
Standard Hotel, Railway Rd.
Amritsar (Punjab)
Amritsar International Hotel, City Centre.
Hotel Airlines, Cooper Rd.
Hotel Broadway, M. Azad Rd.
Mohan International Hotel, Albert Rd.
Aurangabad (Maharashtra)
Ajanta Ambassador Hotel.
Aurangabad Hotel.
Hotel Aurangabad Ashok, Dr. R. Prasad Mrg.
Hotel Neelam.
Hotel Rama International.
Baroda (See Vadodara)
Bangalore (Karnataka)
Airlines Hotel, 4, Madras Bank Rd.
Barton Court, M. Gandhi Rd.
Berry's Hotel, 46-1, Church St., Off M. G. Rd.
Brindavan Hotel, 40, M. G. Road.
Chamundi Hotel Pvt. Ltd., The Palace.
Hotel Ashoka, Kumara Park High Grounds.
Hotel Bangalore International, 2-A, 2-B, Crescent Rd., High Grounds.
Hotel Broadway, 12, Kempe Gowda Rd.
Hotel Cauvery Continental, 11/37, Cunningham Rd.
Hotel Chalukya, 44, Race Course Rd.
Hotel Hoysala, 212, Subedar Chatram Rd., Seshadripuram.
Hotel Kamadhenu, Trinity Circle, M. Gandhi Rd.
Hotel Sudarshan East West, 66, Residency Rd.
Madras Woodlands Hotel, 5, Sampangi Tank Rd.
Palace Hotel, 3, Ali Askar Rd.
Shilton Hotel, St. Mark's Rd.
Taj Residence, 14, M. Gandhi Rd.
Victoria Hotel, 20/21, Residency Rd.
West End Hotel, Race Course Rd.
Windsor Manor, Sankey Rd.
Belgaum (Karnataka)
Hotel Brindavan, Maruji Lane Corner.
Bhavnagar (Gujarat)
Nilambag Palace.
Bhopal (Madhya Pradesh)
Hotel Ramsons International, Hamidia Rd.
Pagoda Hotel, Hamidia Rd.
Rajdoot Hotel, Hamidia Rd.
Bhubaneshwar (Orissa)
Hotel Konark.
Hotel Prachi, 6, Janpath.
State Guest House.
Traveller's Lodge.
Bijapur (Karnataka)
Traveller's Lodge.
Bombay (Maharashtra)
Ambassador Hotel, Churchgate Extn.
Astoria Hotel, Churchgate Reclamation.
Centaur Hotel, Bombay Airport.
Cresta Hotels Ltd., Dr. A. B. Rd., Worli.
Fariyas Hotel Pvt. Ltd., Colaba.
Grand Hotel, Ballard Estate.
Holiday Inn, Turner Royal Lane, Juhu.
Hotel Airport Plaza, 70-C, Nehru Rd., V. Parle East.
Hotel Atlantic, Juhu Tara Rd.
Hotel Bombay International, Marine Drive.
Hotel Ceasars Palace, 313, Linking Rd., Khar.
Hotel Diplomat, Mereweather Rd., Colaba.
Hotel Ellora Palace, 10th Khetwadi Lane.
Hotel Grant, 44, Proctor Rd.
Hotel Heritage, Byculla.
Hotel In Phom, 148/8, Juhu Rd.
Hotel Hilltop International, Worli Sea Face.
Hotel Hiramani, Dr. B. Ambedkar Rd., Lalbaug.
Hotel Horizon, Juhu Beach.
Hotel Kemp's Corner, Kemps Corner.
Hotel Lawrence, Rampart Row.
Hotel Linkway, Linking Rd., Khar.
Hotel Natraj, 135, N. Subash Rd.
Hotel Oberoi Towers, Nariman Point.
Hotel President, 90, Cuffe Parade.
Hotel Rosewood, Tulsiwadi, Off Tardeo Rd.
Leela Penta Hotel, Leela Baug Complex, Bombay Internationa. Airport, Sir M. V. Rd.
Palm Grove, Juhu Beach.
Ritz Hotel, 199, Churchgate Reclamation.
Sea Palace Hotel, Apollo Bunder.
Sea Rock, Land's End, Bandra.
Shalimar Hotel, Cumballa Hill.
Sun-n-Sand, 39, Juhu Beach.
Taj Mahal Hotel, Apollo Bunder.
Taj Mahal Intercontinental, Apollo Bunder.
West End Hotel, 45, Marine Lines.
Calcutta (West Bengal)
Airport Hotel, Dum Dum.
Astoria Hotel, 6/2/3, Sudder St.

WELCOMGROUP

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enjoy
people

SeaRock

Land's End Bandra Post Box 9831 Bombay 400 050 Phone 535421 Telex 011 5480 Cable SEAROCK

The sea resort fun show place in metropolitan Bombay

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011-71140

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Superior first class 17-storey resort hotel (1977).

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405 airconditioned rooms including suites, with individual temperature control, direct dial telephones, 4-channel music, attached baths with hot and cold water and closed circuit colour T.V.

24-hour Coffee shop, Bar lounge, 3 Speciality Restaurants, Rooftop Revolving Restaurant and a Discotheque.

Beauty Parlour and Barber Shop, Health Club with Gymnasium & Sauna, Sports facilities — billiards, tennis, squash & swimming pool. Large number of indoor and open-air banquet and conference areas.

Also 24-hour room service, valet service, bank, shopping arcade, secretarial and telex facilities, travel counter and pastry shop, Doctor on call, baby-sitting, free parking, free coach service twice a day to city centre and back.

Rates : **Single Room — Rs. 575/- Double Room — Rs. 675/-**
Plus 10% Service Charge + 7% Luxury Tax.
Group rates on request.

Credit cards : **American Express, Diners Club, Master Charge, Visa, Welcomgroup, Central Card & Barclay Card.**

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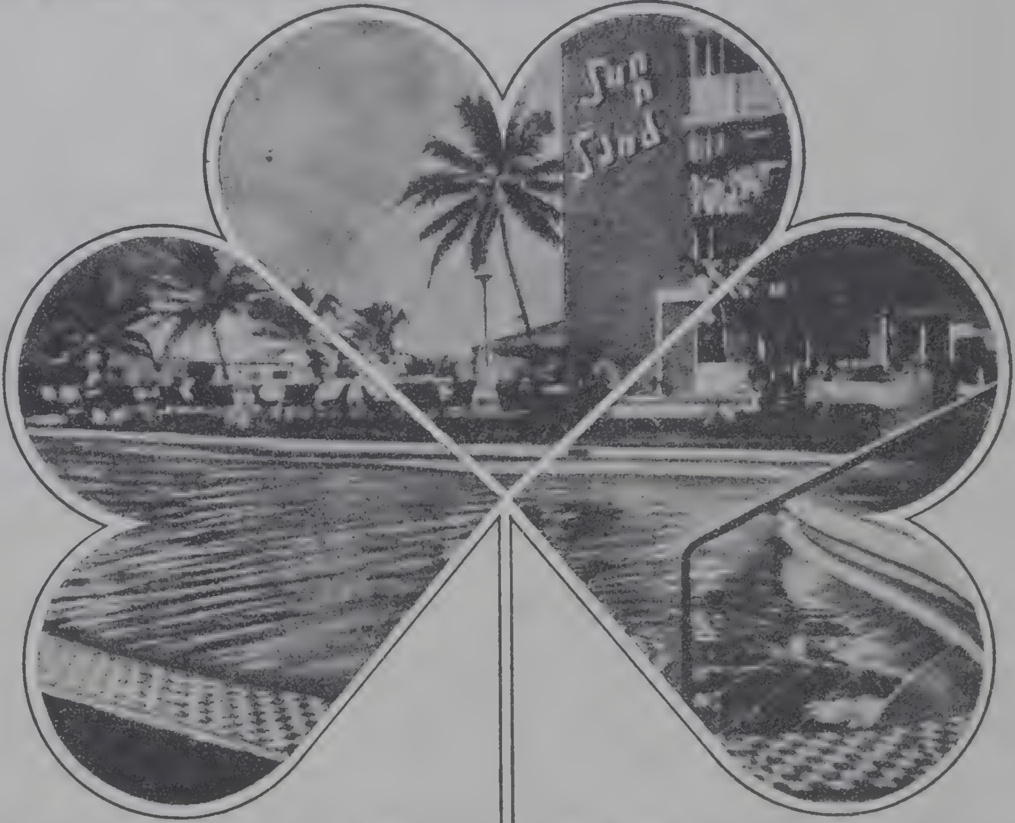

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OPENING SHORTLY - OUR NEW ASSOCIATE HOTEL IN SRI LANKA
AIRPORT GARDEN HOTEL

Carlton Hotel, 2, Chowringhee.
Fairlawn Hotel, 13-A, Sudder St.
Grand Hotel, 15, Chowringhee.
Great Eastern Hotel, 1, 2 & 3, Old Court House St.
Hotel Hindustan International, 235/1, Acharya J. C. Bose Rd.
Hotel Majestic, 4C, Madan St.
Hotel Minerva, 11, Ganesh Chandra Ave.
Hotel Oberoi Grand, 15, J.L. Nehru Rd.
Hotel Rutt-Deen Pvt. Ltd., 21B, Loudon St.
Hotel Shalimar, 3, S.N. Banerjee Rd.
Hotel Southway, P-401, Kavatala Lane.
Hotel Trimoorti, 24, Roy St.
Hotel West End, 25, Waterloo St.
Lytton Hotel, 14, Sudder St.
New Central Hotel, 90, Chittaranjan Ave.
New Kelinworth Hotel, 1 & 2, Little Russell St.
Oberoi Grand Hotel, 15, J. L. Nehru Rd.
Park Hotel, 17-B, Park St.
Ritz Continental Hotels Ltd., 12, J. L. Nehru Rd.
Sagar Hotel, 11, Waterloo St.
Spences Hotel, 4, Wellesley Place.
Stockman Hotel Pvt. Ltd., 12, Park St.

Cape Comorin or Kanya Kumari (Tamil Nadu)
Kerala House.

Chandigarh
Dak Bungalow.
Hotel Oberoi, Mount View, Sector 10.
Hotel Rikhy's International, Sector 35-B.

Cochin & Ernakulam (Kerala)
Casino Hotel, Willingdon Island.
Grand Hotel, M. Gandhi Rd., Ernakulam.
Hotel Luciya.
Hotel Seaking, M. G. Rd.
International Hotel, M. Gandhi Rd., Ernakulam
Island Hotel Maharaj, Willingdon Island.
Malabar Hotel, Willingdon Island.
Sea Lord Hotel.

Coimbatore (Tamil Nadu)
Hotel Alankar, Sivaswamy Rd., Ramnagar.
Hotel City Tower, 36, Sivaswami Rd.
Hotel Guru, 16/54, Raja St.
Hotel Sri Murugan.

Coonoor (Tamil Nadu)
Hampton Manor Hotel.
Ritz Hotel.

Cuttack (Orissa)
Circuit House.
Cuttack Hotel, Near Rly. Stn.
Eastern Hotel.
Trimurti Hotels Ltd., Link Rd.

Dalhousie (Himachal Pradesh)
Aroma-in-Claire's Hotel.
Grand View Hotel.

Darjeeling (West Bengal)
Central Hotel, Robertson Rd.
Hotel Sinclairs.
Oberoi Mount Everest, 15, Gandhi Rd.
Windamere Hotel, Observatory Hill.

Dehra Dun (Uttar Pradesh)
Hotel Kwality, 19, Rajpur Rd.
Hotel Price, Hardwar Rd.

Delhi & New Delhi
Akbar Hotel, Chanakyapuri.
Ashoka Hotel, 50-B, Chanakyapuri.
Centaur Hotel, Delhi Airport
Claridges Hotel, 12, Aurangzeb Rd.
Hotel Diplomat, 9, Sardar Patel Rd.
Hotel Hocks Deluxe, 8/7, D.B. Gupta Rd.
Hotel Imperial, Janpath.
Hotel Janpath, Janpath.
Hotel Kanishka, 19, Ashoka Rd.
Hotel Marina, G-59, Conn. Circus.
Hotel Oberoi Intercontinental, Wellesley Rd.
Hotel Oberoi Maidens, 7, Alipur Rd.
Hotel President, Asaf Ali Rd.
Hotel Rajdoot, Mathura Rd.
Hotel Samrat, Chanakyapuri.
Hotel Siddharth, 3, Rajendra Place.
Hotel Siddharth Continental, Vasant Vihar.
Hotel Sofitel Surya, Friends Colony.
Hotel Tourist, Near New Delhi Rly. Stn.
Hyatt Regency Delhi, Cama Place, Ring Rd.
Lodi Hotel, Lala Lajpat Rai Marg.
Maurya-Palace Sheraton, Diplomatic Enclave.
Nirula's Hotel, L Block, Connaught Circus.
Qutab Hotel, Off Sri Aurobindo Mrg.
Taj Palace Hotel, Sardar Patel Mrg.
Welcomehotel Maurya, Diplomatic Enclave.

Dhanbad (Bihar)
Hotel Skylark, Bank More.

Faridabad (Haryana)
Holiday Inn.
Hotel Raj Hans.

Gangtok (Sikkim)
Hotel Tashi Delek.

Gauhati (Assam)
Happy Lodge.

Gaya (Bihar)
Traveller's Lodge, Bodh Gaya.

Goa
Goa Woodlands Hotel, M. L. Furtado Rd., Margao.
Hotel Fidalgo, 18, June Rd., Panaji.
Hotel Mandovi, Panaji.
Hotel Oberoi Bogmalo Beach, Dabolim.
Hotel Solmar, Panaji.
Hotel Zuari, Vasco Da Gama.
Maberest Hotels Pvt. Ltd., Dr. W. Da Silva Rd., Panaji.
Tourist Hotel, Panaji.

Gopalpur On Sea (Orissa)
Oberoi Palm Beach.

Gulmarg (Kashmir)
Hotel Highlands Park.
Nedous's Hotel.

Gwalior (Madhya Pradesh)
Hotel Gujri Mahal, High Court Lane, Lashkar.
Usha Kiron Palace Hotel, Jai Vilas Palace.

Hyderabad-Secunderabad (Andhra Pradesh)
Asrani International Hotel, M.G. Rd.
Hotel Banjara Ltd., Rd. No. 13, Banjara Hills.
Hotel Dwarka, Raj Bhavan Rd.
Hotel Emerald, Chirag Ali Lane.
Hotel Nagarjuna, Basheer Bagh.
Hotel Parklane Pvt. Ltd., Sarojini Devi Rd.
Hotel Sampurna International, Mukramjahi Rd.
Hyd Inn Hotels Pvt. Ltd., 5-9-24/92, Lake Hills Rd.
Percy's Hotel, Sardar Patel Rd.
Ritz Hotel, Hill Fort Palace.
Rock Castle Hotel, Jubilee Hills.
Sagar Mahal, Osmansagar.
Taj Mahal Hotel, King Kothi Rd.

Imphal (Manipal)
Hotel Manipur.

Indore (Madhya Pradesh)
Central Hotel, 27, M. Gandhi Rd.
Hotel Jahaz Mahal, 5, R. Tagore Marg.
Lantern Hotel, North Tukoganj.

Jabalpur (Madhya Pradesh)
Jackson's Hotel, Civil Lines.
Pagoda Hotel, 313, Napier Town.

Jaipur (Rajasthan)
Hotel Clarks Amer, J. L. Nehru Rd.
Hotel Jaipur Ashok, Jai Singh Circle, Bani Park.
Hotel Khasa, Kothi.
Hotel Khetri House.
Jai Mahal Palace Hotel, Civil Lines.
Kaiser-i-Hind Hotel, Tourist Palace.
LMB Hotel, Johari Bazar.
Rajasthan State Hotel, Mirza Ismail Rd., Khasa Kothi.
Rambagh Palace Hotel.

Jammu (Kashmir)
Hotel Asia, Nehru Mkt.

Jamshedpur (Bihar)
Tisco Hotel, 7B Rd.

Kalimpong (West Bengal)
Tourist Lodge.

Kangra Valley (Himachal Pradesh)
Civil Rest House.

Kanpur (Uttar Pradesh)
Berkeley Hotel, Civil Lines.
Sarvashri Meghdoot Hotels, Behari Lal Bldg., 37/3, The Mall.

Katrain (Himachal Pradesh)
Riverview Guest House.

Khajuraho (Madhya Pradesh)
Circuit House.
Hotel Chandela.
Hotel Jass Oberoi.
Khajuraho Hotel.
Tourist Bungalow.
Traveller's Lodge.

Khandala (Maharashtra)
Hotel Dukes Retreat.

Kodaikanal (Tamil Nadu)
Carlton Hotel.
Highway Traveller's Bungalow.
Holiday Home.
Laughing Waters Guest House.

Konark (Orissa)
Traveller's Lodge.

Kulu Valley (Himachal Pradesh)
Calvert Lodge.
Civil Rest House.
Forest Rest House.
Hotel May Flower.
Traveller's Lodge.

Lonavala (Maharashtra)
Biji's Ingleside Inn.
Fariyas Holiday Resort.

Lucknow (Uttar Pradesh)
Carlton Hotel, Shahnajaf Rd.
Hotel Clarks Avadh, 8, M. G. Mrg.
Hotel Gulmarg, Amin-ud-daula Park.

Ludhiana (Punjab)
Gulmor Hotel, Ferozepur Rd.
Hotel Shiraz, Ferozepur Rd.

Madras (Tamil Nadu)
Adyar Gate Hotel, 132, Mowbrays Rd.
Blue Lagoon Hotel, Beach Resort, Nellankarai.
Connemara Hotel, Binny's Rd.
Geeta Hotels Pvt. Ltd., Egmore.
Holiday Inn, 132, T.K.K. Rd.
Hotel Blue Diamond, 598, Poonamallee High Rd.
Hotel Blue Star International, 108, Wall Tax Rd.
Hotel Chola, 5, Cathedral Rd.
Hotel Claridges, 14, Thambuswamy Rd.
Hotel Dasaprakash, 50, Poonamallee High Rd.
Hotel Imperial, 1A, Gandhi Irwin Rd.
Hotel Kanchi, Commander-in-Chief Rd.
Hotel Madras International, 2/144, Mount Rd.
Hotel Maris, 4A, Cathedral Rd.
Hotel New Victoria, No. 1, Kennet Le., Egmore.
Hotel Palm Grove, 112, Kodambakkam High Rd.
Hotel Picnic 1132, P.H. Rd.
Hotel President, Edward Elliots Rd.
Hotel Safari, 222, Royapettah High Rd.
Hotel Seeni International, 7, Santhome High Rd., Mylapore.
Hotel Shrilekha, 11A/5, Mount Rd.
Hotel Silver Stars Pvt. Ltd., 3, Purasawalkam High Rd.
Hotel Sornam International, 10, Stringers St., P.T.
Hotel Sudarshan International, 12-A, Montieth Rd.
Hotel Victoria, Egmore.
Madras Hotel Ashoka Pvt. Ltd., Egmore.
Savera Hotel, 69, Dr. Radhakrishna Rd.
Spencer International Hotels Ltd., 769, Anna Salai.
Taj Coromandel Hotel, 5, Nungambakkam High Rd.
Tourist Homes Pvt. Ltd., 5, G. Irwin Rd.
Woodlands Hotel, 1/23, E. Elliots Rd.

Madurai (Tamil Nadu)
Hotel Madurai Ashok, Alagarkoil St.
Pandyan Hotel Ltd., Race Course.

Mahableshwar (Maharashtra)
Dina Hotel.

Fountain Hotel.
Fredrick Hotel.
Hotel Anarkali.
Hotel Gautam.
Hotel Poonam.
Regal Hotel.

Manali (Himachal Pradesh)
Orchards Guest House.

Mangalore (Karnataka)
Hotel Annella, Hampankatta.
Hotel Srinivas, Ganapathy St., School Rd.
Moti Mahal, Falnir Rd.

Manipal (Karnataka)
Valley View International.

Matheran (Maharashtra)
Hotel Rugby Winter Palace.
Lords Central Hotel.
Royal Hotel.
Rugby Hotel.

Mount Abu (Rajasthan)
Bikaner Palace Hotel.

Mussoorie (Uttar Pradesh)
Connaught Castle Hotel, The Mall.
Hakman's Grand Hotel, The Mall.
Hotel Roan-Oke.
Savoy Hotel.
Sylverton Hotel, Kulri Bazar.

Mysore (Karnataka)
Hotel Dasaprakash Paradise, Yadavagiri.
Hotel Highway Pvt. Ltd., New Bannimantap Extn.
Hotel Krishnaraj Sagar, Krishnaraj Sagar.
Hotel Metropole, J. Laxmibai Rd.
Hotel Mysore Dasaprakash, Gandhi Sqr. Rd.
Hotel Rajendravilas Imperial, Chamundi Hill.
Hotel Siddhartha, Nazarbad.
Lalitha Mahal Palace Hotel.

Nagpur (Maharashtra)
Hotel Midland, Central Avenue.
Hotel Shyam, Malviya Rd., Sitabuldi.
Hotel Skylark, 119, Central Ave. Rd.
Mount Hotel, Commercial Rd.

Naini Tal (Uttar Pradesh)
Ardewell Camp.
Belvedere Hotel.
Brookhill Camp.
Grand Hotel.
Langham House.
Log Cabin, Cheena Peak.
Shervani Hill Top Inn.
Swiss Hotel.
Tourist Home.

Nasik (Maharashtra)
Green View Hotel, Trimbak Rd.
Hotel Mazda & Cafe, Agra Rd.
Hotel Rajdoot, Trimbak Rd.

Ootacamund (Tamil Nadu)
Hotel Dasaprakash.
Hotel Fernhill Imperial.
Savoy Hotel.
Tourist Bungalow.

Pahalgam (Kashmir)
Dak Bungalow.

Panchgani (Maharashtra)
Amir Hotel.
Hotel Natraj
Il-Palazzo Hotel.
Prospect Hotel.

Patna (Bihar)
Hotel Maurya Clarks.
Hotel Natraj, Ashok Raj Path.
Hotel Pataliputra.
Hotel Republic, Exhibition Rd.
Hotel Satkar International, Fraser Rd.
Palace Hotel, Gandhi Maidan.

Pondicherry
Aurobindo Ghose Ashram.
Continental, Beach Rd.
Grand Hotel d' Europe, rue Suffren.
Hotel Moss.

Pune (Maharashtra)
Dreamland Hotel, 14, Connaught Rd.
Hotel Ajit, 766/3, Deccan Gymkhana.
Hotel Amir, 15-A, Connaught Rd.
Hotel Blue Diamond, 11, Koregaon Rd.
Hotel Gulmohr, 15-A, Connaught Rd.
Hotel Pearl, Opp. Balgandharva Rangamandir, J. M. Rd.
Hotel Sapna, Jangli Maharaj Rd.
Hotel Shreyas, 124/B, Apte Rd.
Hotel Sutlej, 917/19-A, Shivaji Nagar.
Mobos Hotel, 20, Bund Garden Rd.
Ritz Hotel, 6, Connaught Rd.
Wellesley Hotel, 12-A, Connaught Rd.

Puri (Orissa)
Circuit House.
Forest Rest House.
P.W.D. Dak Bungalow.
South Eastern Railway Hotel.

Ranchi (Bihar)
Hotel Yuvraj.

Roorkee (Uttar Pradesh)
Polaris Hotel, Bar & Restaurant.

Sanchi (Madhya Pradesh)
Buddhist Guest House.
Circuit House.
P.W.D. Rest House.
Tourist Bungalow.

Shillong (Meghalaya)
Circuit House & Inspection Bungalow.
Pinewood Hotel.

Shimla (Himachal Pradesh)
Himland Hotel, Circular Rd.
Oberoi Cecil, The Mall.
Oberoi Clarkes, The Mall.

Shivpuri (Madhya Pradesh)
Circuit House.
Dak Bungalow.
Shivpuri Hotel.

Srinagar (Kashmir)
Centaur Lake View Hotel, Chasmeshahi.
Hotel Broadway.
Hotel Oberoi Palace.
Hotel Shahenshah.
Nedous's Hotel.

Surat (Gujarat)
Apsara, Lal Darwaja.
Hotel Ashima, Opp. Rly. Stn.
Tex-Palazzo Hotel, Ring Rd.

Tirupati (Andhra Pradesh)
Hotel Urvashi, Renigunta Rd.
Hotel Vikram, 207, T. P. Area.

Trichur (Kerala)
Tourist Bungalow.

Trivandrum (Kerala)
Hotel Belair, Vellayani.
Hotel Luciya Continental, East Fort.
Hotel Tara.
Mascot Hotel.

Udaipur (Rajasthan)
Garden Hotel and Motel.
Lake Palace Hotel.
Laxmi Vilas Palace Hotel.
Shikarbadi Hotel.
State Hotel.

Vadodara (Gujarat)
Express Hotel, R. C. Dutt Rd.
Green Hotel, Race Course Rd.
Utsav Hotel Pvt. Ltd., Navrang Cinema Compound.

Varanasi (Uttar Pradesh)
Benaras Hotels Pvt. Ltd., Fort, Ramnagar.
Clarks Hotel.
Parade Kothi.
The Mall.
Tourist Bungalow.

Vijayawada (Andhra Pradesh)
Hotel Khandari International, Labbipet.
Hotel Manorama, Bunder Rd.
Hotel Nataraj, Congress Office Rd.
Welcome Hotel, Sumathi Bldgs., Besant Rd., Gandhi Nagar.

Visakhapatnam (Andhra Pradesh)
Dolphin Hotels Ltd.
Hotel Apsara, 6/134, Waltair Main Rd.
Hotel Ooty, Dabagardens.
Hotel Poorna, Poorna Bldgs., Main Rd.
Hotel Vikram, 75 Feet Rd.
Marina Hotel, Beach Rd.
Sun-n-Sea, Beach Rd.

(See chapter on State Association for a State-wise classification of Hotels and Restaurants Associations).

INDENTING AGENTS

G. Chemie International, Vruj Bhavan, Sardar V.P. Rd., Bombay 400004.

Gaurav Engg. Pvt. Ltd., 1102, Atlanta, 209, N. Point, Bombay 400021.

Kaypee Sales Union, Nanabhoy Mansion (2nd Floor), Sir P.M. Rd., Bombay 400001.

Raj Tools Corpn., 50, Bibijan St., Bombay 400003.

INDUSTRIAL & MARKETING CONSULTANTS

Acme Consultancy Services Pvt. Ltd., 31, Bombay Mutual Annexe, Gunbow St., Bombay 400001.

Anwar Divecha & Associates, 136, Arcadia, Nariman Point, Bombay 400021.

Battery Socy. of India, B-6/7, Shopping Centre, Safdarjung Enclave, New Delhi 110029.

Bee Gee Consultants Pvt. Ltd., 164, Atlanta, 209, N. Point, Bombay 400021.

Boolani Engg. Corpn., 402, V. Savarkar Rd., Prabhadevi, Indl. Estate, Bombay 400025.

Chemiequip Process & Engg. Consultants Services Pvt. Ltd., 306, Green House, Green St., Bombay 400023.

Commander V.S.P. Mudaliar, 47, East Abiramapuram, Mylapore, Madras 600004.

Commercial & Industrial Services, E-7, Gokhale Marg, Jaipur 302001.

CPA Consultancy Services Pvt. Ltd., 11/1A, Sarojini Naidu Sarani, Calcutta 700018.

Creative Consultants, G.P.O. Box 484, Bombay 400001.

Creative Mktg. Consultants Services Pvt. Ltd., 21, Atlanta, N. Point, Bombay 400021.

Dalal Consultants & Engrs. Pvt. Ltd., 44, Maulana Abdul Gaffar Rd., Worli, Bombay 400018.

Decom Marketing Pvt. Ltd., Post Box 1340, Bombay 400038.

Delta Enterprises, 608, Churchgate Chambers, New Marine Lines, Bombay 400020.

Diecasting Socy. of India, B-6/7, Shopping Centre, Safdarjung Enclave, New Delhi 110029.

Digitron Consultants, Post Box 6554, Bombay 400018.

Dr. R.M. Shah & Associates, 613, Churchgate Chambers, 5, New Marine Lines, Bombay 400020.

Field Force & Marketing Associates, 18, Fountain Plaza, Pantheon Rd., Madras 600008.

Gujarat Industrial & Technical Consultancy Organisation Ltd., Neptune Towers, Ashram Rd., Ahmedabad 380009.

Holtec Engrs. Pvt. Ltd., B/62, Safdarjang Enclave, New Delhi 110016.

Ibcon Pvt. Ltd., Merchant Chambers, 41, New Marine Lines, Bombay 400020.

Indian Copper Information Centre, 27B, Camac St., Calcutta 700016.

Indian Hot Dip Galvanizers Assn., B-6/7, Shopping Centre, Safdarjung Enclave, New Delhi 110029.

Indian Lead Zinc Information Centre, B-6/7, Shopping Centre, Safdarjung Enclave, New Delhi 110029.

Industrial & Agricultural Consultants, 5, Sardambal St., Gokulam Colony, Madras 600017.

Industrial Consultants (India), 18/34, Shaktinagar, Delhi 110007.

Industrial Consulting Bureau Ltd., Jiji House, Raveline St., Bombay 400001.

Industrial Consulting Bureau Ltd., 8A, Greames Rd., Madras 600006.

Integrated Consultants Pvt. Ltd., No. 12, Davis Road, Bangalore 560005.

International Data Management Pvt. Ltd., Express Towers, 16th Flr., Nariman Point, Bombay 400021.

Iteng Engg. Pvt. Ltd., Aban House, 6th Flr., 25, Ropewalk St., Bombay 400023.

Kirloskar Consultants Ltd., 917/19A, Shivajinagar, Fergusson College Rd., Pune 411004.

Maini Industrial Consultants, 12, Rajmahal Vilas Extn., Bangalore 560006.

Margadarsi Marketing Pvt. Ltd., Eenadu Compd., Somajiguda, Hyderabad 500004.

Marketing & Business Associates Pvt. Ltd., Shree Niketan, 1st Flr., Shiv Sagar Estate, F Block, Dr. A. B. Rd., Bombay 400018.

Marketing Consultants & Agencies Ltd., 36, Cunningham Rd., Bangalore 560052.

Marketing Group, C/o B. K. Parwani, 10, Jai Tirath Mansion, Barrack Rd., Bombay 400020.

Mercantile Information & Reference Agency, 103/104, B. Neelambuj, Kamal Apartments, Shankar Lane, Kandivli West, Bombay 400067.

Monarch Indl. & Marketing Consultants, 189, Kanke Rd., Ranchi 834008. (Bihar).

Nanda Industrial Consultants Pvt. Ltd., A-11, Niti Bagh, New Delhi 110049.

Plywood & Industrial Consultants Pvt. Ltd., Makum Rd., Tinsukia 786125. (Assam).

PSYCON 512, Rajeha Centre, N. Point, Bombay 400021.

Rosh-Nee Associates, Post Box 16681, Bombay 400050.

Shah Industrial Consultants, Bhaveshwar Shikar, 2, R. B. Mehta Mrg., Bombay 400077.

Shipchandler & Co., 6-3-352, Rd. No. 1, Banjara Hills, Hyderabad 500003.

Swan Marketing Pvt. Ltd., 12-B, Lord Sinha Rd., Calcutta 700071.

Tata Consultancy Services, Air India Bldg., Nariman Point, Bombay 400021.

Tiam House Services Pvt. Ltd., 11/12, N. Beach Rd., Madras 600001.

(Also see Management Consultants in this list.)

INSULATION CONTRACTORS

Aswathi Insulations, 18 HB Colony, Panampilly Nagar, Cochin 682016.

Exelite Insulations Pvt. Ltd., 108, Worli Sea Face Rd., Bombay 400018.

Hightone Insulation Engrs. Pvt. Ltd., 27-A, Assisted Private Ind. Estate, Balanagar, Hyderabad 500037.

Lloyd Insulations (India), 6, Middleton St., Calcutta 700016.

Mascot Insulations Pvt. Ltd., 99/5/8A, Ballygunge Place, Calcutta 700019.

Mysore Insulation & Products Co., 290/17, 14A Cross, Vyallkaval, Bangalore 560003.

INSURANCE BROKERS & CONSULTANTS

Global Insurance Claims & Allied Agencies Pvt. Ltd., Gresham Insurance House, 4th Flr., Sir P.M. Rd., Bombay 400001.

Jagmohandas Bhagwandas Boda & Co., Maker Bhavan, 1, Sir Vithaldas Thackersey Mrg., Bombay 400020.

National Consultants, 181, "Venus", 40, Cuffe Parade, Colaba, Bombay 400005.

National Insurance Co. Ltd., 12, J. Tata Rd., Bombay 400020

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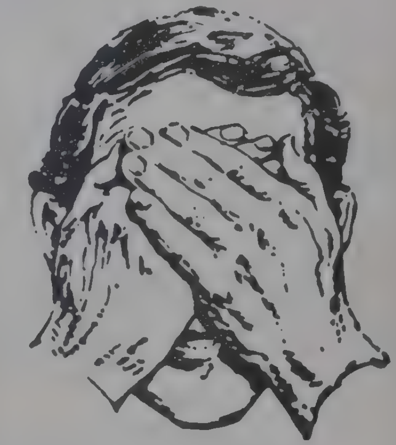

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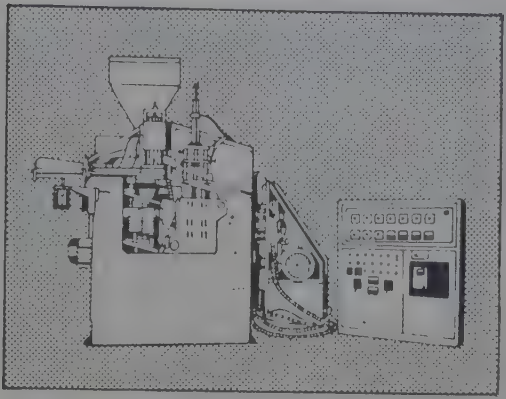

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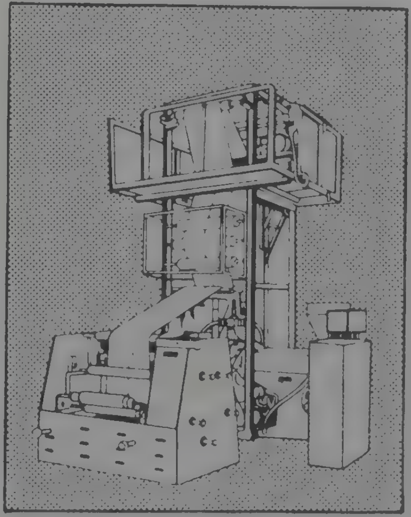

EXTRUSION PLANTS

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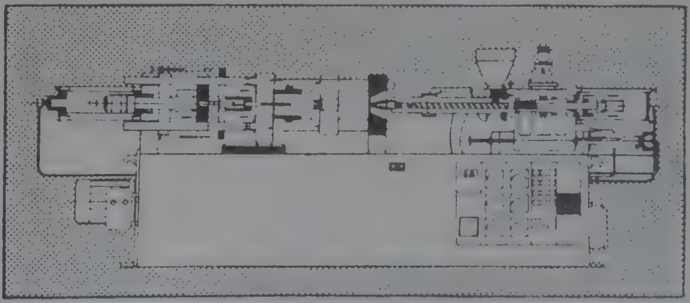

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- **Flexographic printing machines.**
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- **Automatic bag making machines.**
- **Vacuum forming & shrink packaging machines.**
- **Moulds and dies.**

MAKHIJA 1170

KITCHEN APPLIANCES REPAIRERS

Escee Service Centre, Shreenivas House, 98, Dattaram Lad Mrg., Kalachowki, Bombay 400033.

Industrial Kitchen Equipment & Allied Agencies, Babulnath Temple Trust Bldg. No. 2, 1st Flr., Block 30, Chowpatty, Bombay 400007.

MACHINING JOBS

Competition (Mfg.) Corpn., 337, V. Savarkar Mrg., Bombay 400028.

Hind Engg. Works, 372, Dharwar Rd., Belgaum 590002.

K. K. Shipping Consultants Pvt. Ltd., Rex Chambers, Walchand Hirachand Mrg., Bombay 400038.

Manoj Engg. & Mech. Works, 5, Jeevan Sukh, 14th Rd., Bandra, Bombay 400050.

Marintex Engrs., Block 1, J. Karia Indl. Estate, Mussa Killadar St., Clerk Rd., Bombay 400011.

Omega Engg. Corpn., Mehta Estate, Opp. Mohan Studios, Andheri East, Bombay 400093.

Patel Filters Ltd., 5/1/2, GIDC Vatwa, Ahmedabad 382445.

Pursharath Engg. Co., Unit No. 15 & 18, Punjani Indl. Estate, 1st Pokhran Rd., Khopat, Thane 400601.

Quantas Inds., 431, Kaliandas Udyog Bhavan, Prabhadevi, Bombay 400025.

Rajesh Engg. Works, Asian Chemical Compound., Subash Nagar, Jogeshwari East, Bombay 400060.

Sea Horse Engg. & Inflatable Co., 9, Waterloo St., Calcutta 700069.

Sunil Enterprises, B. Kumar Compd., LBS Mrg., Vikhroli, Bombay 400083.

MANAGEMENT CONSULTANTS

(The bracketed alphabets next to the name indicate B — Business; E — Engineering; I — Industrial; L — Legal; M — Management; Ma — Marketing; T — Technical).

Andhra Pradesh

Corporate Management Consultants Pvt. Ltd., 'Lakshe', 8-2-283/B/3 Rd. No.3, Banjara Hills, Hyderabad 500034.

Multiple Management Services, 1-4-880/2/22, Gandhi Nagar, Hyderabad 500380.

Satavahana Indl. & Management Consultants Pvt. Ltd., Panjagutta, Hyderabad 500004.

SYMCONS (Systems and Management Consultants) (I.M.), 187, Karbala Maidan, 2nd Flr., Secunderabad 500003.

Yasaswy Management Associates Pvt. Ltd., Sodhi Towers, King Kothi Rd., Hyderabad 500001.

Bihar

Ark Industrial Management Consultants Pvt. Ltd., S.P. Verma Rd., Patna 800001.

Delhi

Automobile Corporate Services Pvt. Ltd., (M), 1, Sri Aurobindo Mrg., New Delhi 110016.

CGR Management & Financial Consultants Pvt. Ltd., B-257, Chittaranjan Park, New Delhi 110019.

Exib Consultants Ltd., (I), A-2/147, Safdarjang Enclave, New Delhi 110016.

Integrated Construction Management Consultants Pvt. Ltd., E-12, Defence Colony, New Delhi 110024.

M. M. Suri & Associates Pvt. Ltd., (M), Bhandari House, 91, Nehru Place, New Delhi 110019.

Mahesh Chandra, (M), 50, Anandlok Colony, New Delhi 110049.

Mantec Consultants Pvt. Ltd., 805, Vishal Bhavan, 95; Nehru Place, New Delhi 110019.

Maxworth Consultants Pvt. Ltd., (M), A-2/147, Safdarjang Enclave, New Delhi 110016.

Personnel & Management Consultants, C-19, Comm. Centre, Sadarjung Development Area, New Delhi 110016.

S.S. Kothary & Co., 9A, Atma Ram House, 1, Tolstoy Mrg., New Delhi 110001.

TSG Consultants Pvt. Ltd., 202, Ashok Bhawan, 93, Nehru Place, New Delhi 110019.

Gujarat

Progro Management Consultants Pvt. Ltd., Ghiya Chambers, Garedia Kuva Rd., Rajkot 360001.

S. Shukla & Co., Rajesh Socy., Vallabh Vidyanagar 388120.

Karnataka

COBIM Pvt. Ltd., (B.I.), 71, Nagvarpalayam, Off Old Madras Rd., Bangalore 560016.

Counsel, 888, 1/3, B. M. Kaval, 1st Stage, Indiranagar, Bangalore 560038.

Interface, (M), 39/3, Residency Rd. Cross, Bangalore 560025.

Management & Industrial Consultants Pvt. Ltd., (M), 57, 17th Cross, Malleswaram, Bangalore 560003.

Kerala

MARG, 15/811, Thycaud, Trivandrum 695014.

Maharashtra

Ability Search Services (M), 42, V. Nariman Rd., Bombay 400023.

Ador Consultants, 72, Mittal Chambers, N. Point, Bombay 400021

Advance Management Services, (M), 19, Jolly Maker Chambers No. 1, Nariman Point, Bombay 400021.

Akay Management Consultants, 1/5-5, 2nd Flr., World Trade Centre, Cuffe Parade Reclamation, Bombay 400005.

Almeco, (M.E.), Sambava Chambers, Sir P. Mehta Rd., Bombay 400001.

Anwar Divecha & Associates, 136, Arcadia, Nariman Point, Bombay 400021.

Associated Industrial & Management Services, (I), 42, Veer Nariman Rd., Bombay 400023.

Associated Personnel Services, 1-2, 10th Flr., Everest, Tardeo Rd., Bombay 400034.

B. K. S. Jain & Associates, (M. Ma.), 7, Neeltarang, 208, Savarkar Mrg., Bombay 400016.

B. K. Verma & Associates, 117, Arun Chambers, Bombay 400034.

Business & Scientific Management Consultancy Services, D-1, Sea Face Park, 50, Warden Rd., Bombay 400026.

Chemiequip Process & Engg. Consultancy Services Pvt. Ltd., (T), 306, Green House, Green St., Bombay 400023.

Chempro Expertise Pvt. Ltd. (E), J.P. House, Saki Naka, Bombay 400072.

Creative Management Consultants Services Pvt. Ltd., 21, Atlanta, Nariman Point, Bombay 400021.

Deccan Management Consultants, Rajkamal-3, 124/11, Erandavane, Pune 411004.

Executive Search, (M), P. Box 16565, Bombay 400018.

Gauba Consultants (Pvt.) Ltd., (T.E.I.M.), 507, Kakad Chambers, 132 Dr. A. Besant Rd., Bombay 400018.

Dr. Ghatge & Associates, (M), No. 2, Rehem Mansion, Colaba Causeway, Bombay 400005.

H. L. Financial Consultants & Management Services Pvt. Ltd., (M), Stock Exchange Bldg., Bombay Samachar Mrg., Bombay 400023.

Dr. K. K. Anand & Associates, (I), 71, Mittal Chambers, N. Point, Bombay 400021.

K. Ananthraman & Associates, A-24, Anand, Juhu, Bombay 400058.

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Managerial Services Pvt. Ltd., (M), Vidyabhavan, Near S. T. Office, Agra Rd., Thane 400602.

Mehan & Associates, (M), The "Garib", Fifth North South Rd., Juhu Vile Parle Scheme, Bombay 400058.

Modern Management Counsel, (M.T.), Court Chambers, New Marine Lines, Bombay 400020.

National Consultants, P.O. Box 9913, Bombay 400005.

P. Sheth & Co. (M), 17/2, Parekh Vora Chambers, 66, N. Master Rd., Bombay 400023.

Personnel Adm. & Management Services (M), 90-B, Gokhale Rd., Thane 400602.

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Pranava Industrial Consultants Pvt. Ltd. (I), Warden Court, August Kranti Mrg., Bombay 400036.

Progressive Management Consultancy, Post Box 7277, Bombay 400077.

R.G. Joshi & Associates, 198/22 (Old) Tilak Rd., Patil Bldg., Pune 411030.

Research Consultants and Marketing Services Pvt. Ltd., (Ma), Udyog Bhavan, B. Estate, Bombay 400038.

Sarin & Co., (M), Post Box 6544, Bombay 400026.

Shah Research Associates Pvt. Ltd., (I), 108, Bajaj Bhuvan, 10th Flr., Nariman Point, Bombay 400021.

Tata Consultancy Services (M), Air India Bldg., Nariman Point, Bombay 400021.

Team Management Consultancy Services Pvt. Ltd., 12A, 7th Flr., Embassy Centre, N. Point, Bombay 400021.

The Settlers, 516, Dalamal Tower, 221, N. Point, Bombay 400021.

Unitech Indl. & Management Consultants Pvt. Ltd., Resham Bhavan, 7th Floor, 78, Veer Nariman Road, Bombay 400020.

Orissa

Management Advisory Services, Bhubaneswar Hotel, Cuttack Rd., Bhubaneswar 751006.

Tamil Nadu

Apex Management Consulting Group Pvt. Ltd., C-1, Ram's Square, 2, Village Rd., Madras 600034.

Management Services Group, Rosewood Offices, 126, Nungambakkam High Rd., Madras 600034.

Prosperity Management Consultants, 16, Jagambal St., T. Nagar, Madras 600017.

Uttar Pradesh

Vikalp Management Consultants, Anekant Palace, 25, Rajpur Rd., Dehra Dun 248001.

West Bengal

Belrex India Ltd. (M), 10, Princep St., Calcutta 700072.

Development Investors Ltd., 24-B, Park St., Calcutta 700016.

L. B. Jha & Co., 8 Camac St., Calcutta 700077.

P K. Mitra & Co., P/7, Mission Row Extn., Calcutta 700001.

Price, Waterhouse Peat & Co. (M), B-4, Gillander House, N. Subhas Rd., Calcutta 700001.

Think Tank Consultants, Post Box 16251, Calcutta 700029.

MARINE ENGINEERS

(See Under 'Shipbuilders and Ship Repairers' in this list.)

MUSEUMS

Andhra Pradesh

Andhra Kesari Yuvajana Samiti Museum (Reg.), Rajamundry 533102, East Godavari Dist. (Paintings and Photographs).

Andhra Medical College Museum, Dept. of Anatomy, Andhra Medical College, Visakhapatnam 530001. (Anthropology & Anatomy).

Archaeological Museum, Amravati, Guntur 522001. (Stupa slabs, Coping pieces and cross-bars, Inscriptions etc.).

Archaeological Museum, Kondapur. (Architectural fragments of Stupa slabs, Sculptures etc.).

Archaeological Museum, Nagarjunakonda. (Satavahana period antiquities consisting of Stone Sculptures, Pottery Terracottas, Beads, Bangles, Coins, Iron objects etc.).

Salarjung Museum, Hyderabad 500002. (Paintings (Western, Indian), Textiles, Porcelain, Jade, Carpets, Manuscripts. Antique furniture, Ivory, Glass, Clocks, Bronze, Silver, Bidriware & Toys in the Children's Section).

State Archaeological Museum, Public Gardens, Hyderabad 500004. (Archaeology, Stone sculptures, Coins, Paintings & Costumes).

Arunachal Pradesh

Central Museum, Lachmiera, Shillong 793001. (Archaeology, Anthropology, Ethnology, Costumes).

Assam

Assam State Museum, Gauhati 781001. (Archaeology, Stone sculptures, Inscriptions, Paintings, Costumes, Ethnology).

Gauhati Medical College, Gauhati 781005. (Science, Medical, Anatomy).

Museum of Animal Husbandry and Veterinary Science, Assam Veterinary College, Gauhati 781022. (Veterinary Science).

Sibsagar College Museum, Sibsagar College, P.O. Joysagar Dist., Sibsagar 785640. (Archaeology, Costume, Ethnology, Science).

Bihar

Archaeological Museum, Bodhgaya, Gaya Dist. (Archaeology — Stone and bronze sculptures etc.).

Archaeological Museum, Nalanda, Patna Dist. (Archaeology — Stone and bronze sculptures.

Bihar Gandhi Smarak Sangrahalaya, North West Gandhi Ground, Patna 800001. (Personalia Museum of Gandhiji).

Bihar Tribal Welfare Research Institute, Morabadi Rd., Ranchi 834008. (Ethnology — the main purpose is to preserve material culture of the tribes of this State).

Gaya Museum, Gaya 823001. (Archaeology, Paintings, Costumes, Ethnology).

Patna Museum, Patna-Gaya Rd., Buddha Marg, Patna 800001. (Archaeology—Stone and bronze sculptures, Coins, Inscriptions, Art, Arms & Weapons, Ethnology, Tibetan & Nepalese).

State Chandradhari Museum, Darbhanga. (Multi-purpose).

Chandigarh

Government Museum & Art Gallery, Sector 10-C, Chandigarh 160017. (Miniature paintings, Sculptures including Gandhara sculptures and Modern art).

Delhi

Anthropology Department Museum, University of Delhi, Delhi 110007. (Anthropology — Cultural and Physical).

Archaeological Museum, Red Fort, Delhi 110006. (Historical Collections of Mughal period — Costumes, Arms, Coins, Jades, Astronomical objects and Miniature paintings).

Bhartiya Adim Jati Sevak Sangh Museum, Dr. Ambedkar Rd., New Delhi 110001. (Costumes and handicrafts of tribals).

Crafts Museum, Thapar House, 124, Janpath, New Delhi 110001. (Archaeology, Paintings, Costumes, Ethnology, Anthropology, and Crafts).

Gandhi Memorial Museum & Library, Rajghat, New Delhi 110001. (Photographs, Relics, Paintings, Sculptures of Gandhiji Library & Archives).

International Council of Museums (Regnl. Agency in Asia), 3/4, Sapru House Annexe, New Delhi 110001.

International Dolls Museum, Nehru House, Bahadurshah Zafar Marg, New Delhi 110002. (Dolls from all over the world).

National Children's Museum, Bal Bhavan, Kotla Rd., New Delhi 110001. (Dolls, Paintings, Photographs, etc.).

National Gallery of Modern Art, Jaipur House, New Delhi 110011. (Contemporary Paintings (from 1857 to date) Sculptures & Graphic Arts. Also paintings of Rabindranath Tagore and Amrita Shergil).

National Museum, Janpath, New Delhi 110001. (Prehistory, Proto-history, Sculptures, Bronzes, Copper plates, Coins, Miniature paintings, Arms, Arts, Pre-Columbian arts, Anthropology and Central Asian collections).

National Philatelic Museum, Dak Tar Bhavan, Sardar Square, Parliament St., New Delhi 110001. (Philately).

Nehru Memorial Museum, Teen Murti Marg, New Delhi 110001. (Personal belongings of Nehru & Library).

Tibet House Museum, 16, Jor Bagh, New Delhi 110003. (Tibetan sculptures. Paintings (Thankas), Ritual objects, Carpets etc.).

Gujarat

Calico Museum of Textiles, P.Box 21, Ahmedabad.

Darbar Hall Museum, Shilekhana Sakkar Bagh, Junagadh 362001. (Archaeology, Paintings, and Costumes).

Gandhi Smriti Museums, Gandhi Smriti, Bhavnagar 364001. (There are four museums under the care of Gandhi Smriti, all housed in one building. (i) Arts and Crafts Museum. Picturesque embroidery and Bead work of Saurashtra, Costumes, Ornaments, Wood Work. Clay objects, Antiquities from Valabin, Coins and Fossils from Piram island. (ii) Barton Museum. Fossils, Archaeology, Sculpture, Coins, Stones, Inscriptions, Copper plates, Manuscripts, Copies of Shilrot Wall paintings, Musical instruments, Brass utensils, Old locks, Arms, Artistic nutcrackers. (iii) Children's Museum. Relief map of Bhavnagar, Aquarium, Toys, Philatelic section, stuffed birds, reptiles and amphibians. (iv) Gandhi Museum. Photographs, collections of documents and personal relics, audio-visual material on Gandhiji).

Gujarat Museum Society, Culture Centre, Kocharab, Ahmedabad 380006. (Archaeology, Anthropology, Ethnology, Costumes, Paintings including N.C. Mehta Collection of miniatures, Science etc.).

Health Museum, Sayaji Bagh, Vadodara 390001. (Archaeology, Paintings, Costumes etc.).

Lady Wilson Museum, Dharampur, Valsad Dist. 396001. (Anthropology, Industrial Art and Natural History).

Museum & Picture Gallery, Sayaji Park. Vadodara 390005. (Indian Archaeology — Prehistoric, Proto-historic and Historic; Indian Art — Ancient, medieval, modern; Numismatics, Paintings, Asiatic and Egyptian collection, Greek, Roman, European Civilizations and Art, Ethnology, Geology, Zoology etc.).

Sardar V. Patel Museum, Sonifalia, Surat 395001. (Archaeology, Paintings & Costumes).

Shri Girdharbhai Children's Museum, Amreli Dist. 364601. (All round development of children).

Tribal Research & Training Institute, Gujarat Vidyapith, Ahmedabad 380014. (Anthropology).

Watson Museum, Jubilee Bagh, Rajkot 360001. (Archaeology, Anthropology, Costumes, Ethnology & Science).

Haryana

Haryana Prantiya Puratatva Sangrahalaya, P.O. Gurukul Jhajjar, Rohtak Dist. 124001. (Archaeology, Paintings, Costumes, Anthropology, Science, Geology, Numismatics, Sculpture, Craft and Manuscripts).

Himachal Pradesh

Bhuri Singh Museum, Chamba. (Archaeology, Anthropology, Costumes, Ethnology, Miniature Paintings).

Jammu & Kashmir

Dogra Art Gallery, Jammu 180001. (Miniature paintings, specially Pahari).

S.P.S. Museum, Lalmandi, Srinagar 190001. (Archaeology, Paintings, Costumes, Anthropology, Arts and Crafts, Minerals, Numismatics and Natural History).

Karnataka

Archaeological Museum, Bijapur 586101. (Stone sculptures, Inscriptions, Manuscripts, Arms and Weapons, Chinaware, Wood-carvings, Carpets etc.).

Archaeological Museum, Halebid. (Stone sculptures, Architectural pieces of Hoysala period).

Archaeological Museum, Hampi. (Sculptures and architectural pieces belonging to the Vijayanagar period).

Museum of Art & Archaeology, Kannada Research Institute, Karnatak University, Dharwar 580003. (Archaeology, Epigraphy, Manuscripts, Sculptures, Numismatics, Paintings).

Mysore Government Museum, Kasturba Rd., Bangalore 560001. (Multi-purpose).

Visvesvaraya Industrial & Technological Museum, Kasturba Rd., Bangalore 560001. (History of Science & Technology, the latest developments by working models and exhibits).

Kerala

Natural History Museum. Dept. of Museums and Zoos, Trivandrum 695001. (Geology, Ethnology and Science).

State Museum, Trivandrum 695001. (Sculptures — Metal, Wood, other Wood Carving, Ivory work, Collection of Lamps and Musical instruments, Numismatics, Handicrafts and Paintings).

State Museum, Trichur 680001. (Arts and Crafts, Wood Carvings, Natural History, Geology etc.).

V.K. Krishna Menon Museum, Calicut 673001.

Madhya Pradesh

Archaeological Museum, Khajuraho. (Archaeology — Stone sculptures from Khajuraho and vicinity).

Archaeological Museum, Sanchi, Raisen Dist. (Stone sculptures, Terracottas and other local finds).

Central Archaeological Museum, Gujari Mahal, Fort, Gwalior 474001. (Stone sculptures, Terracottas, Bronzes and Miniature paintings).

Central Museum, Bombay Agra Rd., Indore 452001. (Archaeology and Paintings).

Dhar District Museum, 12, Ootavad Darwaja, Dhar. (Mainly Archaeological).

District Archaeological Museum, Vidisha 464001. (Archaeology, Terracotta objects, Coins, Educational set of Harappan Art, etc.).

District Museum Shivpuri, Ban Ganga Rd., Shivpuri. (30 stone images (Jain Tirthankars), 20 Harappan culture articles on exhibition. Rest in reserve collections).

Forest School Shivpuri, Shivpuri. (Forest products and Forestry, Ethnology).

Mahant Ghasi Dass Memorial Museum, Raipur 492001. (Archaeology, Paintings, Costumes, Anthropology and Natural History, Art and Crafts).

State Museum, Dhubela, Chhatarpur. (Archaeology, Paintings, Costumes).

Tulsi Sangrahalaya, Ramban, Satna 485001. (Local Archaeological finds and stone sculptures).

Maharashtra

Central Museum, Nagpur 440001. (Archaeology, Anthropology, Paintings, Geology, Natural History).

Deccan College Museum, Pune 411001. (Excavated materials from Nevasa, Jorwe, Nasik etc. and Maratha period objects).

Dr. Bhau Daji Lad Museum, Byculla, Bombay 400008.

Heras Institute of Indian History & Culture, St. Xavier's College, Bombay 400001. (Archaeology, Paintings, Sculpture, Iconography, Manuscripts & Rare books).

History Museum, Ahmednagar College, Ahmednagar 414001. (Archaeology, Paintings).

Magan Sangrahalaya, Maganwadi, P.O. Wardha 442001. (Only for Khadi & Village Industries).

Mahatma Phule Vastu Sangrahalaya, Ghole Rd., Pune 411001. (Archaeology, Agriculture, Anthropology, Costumes, Ethnology, Forestry, Industry, Paintings & Science).

Mani Bhavan Sangrahalaya, 19, Laburnum Rd.; Gamdevi, Bombay 400007. (Personalia Museum of Gandhiji).

Prince of Wales Museum of Western India, Bombay 400023. (Archaeology, Art, Paintings, Costumes, Bronzes, Ivories, Porcelains, Jade, Natural History).

Raja Kelkar Museum, 1378, Shukrawarpeth, Natu Bagh, Pune 411001. (Archaeology, Anthropology, Ethnology, Costumes, Paintings).

Shri Bhavani Museum & Library, Aundh (Satara), Taluka Khatav, Satara Dist. 415001. (Archaeology, Paintings, Stone, Bronze statues, Sandalwood carvings and few textiles and a well-equipped Library).

Manipur

Manipur State Museum, Pologround, Imphal (Anthropology, Archaeology, Ethnology, Costumes, Paintings, Zoology & Geology).

Orissa

Archaeological Museum, Konarak, Puri Dist. 752001. (Stone sculptures).

Orissa State Museum, Bhubaneshwar 751006. (Archaeology, Paintings, Costumes, Ethnology, Anthropology, Science, Manuscripts).

Punjab

State Museum, Patiala 147001. (Archaeology, Anthropology, Costumes, Paintings, Ethnology, Geology and Science).

Rajasthan

Archaeological Museum, Ahar. (Excavated material from the Chalcolithic site (1800 B.C. onwards) of Ahar, Sculptures and Bronzes).

Archaeological Museum, Amber. (Sculptures and excavated material from Bairat, Sambhar, Rairh, Nagar etc., in Jaipur region).

Archaeological Museum, Jhalawar 326001. (Sculptures, Inscriptions, Coins, Miniature paintings and Manuscripts).

Central Museum, Institute of Technology & Science, Pilani (Paintings, Science & Technology).

Central Museum, Ramniwas Gardens, Jaipur 302004.

Ganga Golden Jubilee Museum, Bikaner 334001. (Sculptures, Terracottas, Miniature paintings, Textiles, Arms and Decorative arts).

Government Museum, Alwar 301001. (Sculptures, Inscriptions, Arms, Miniature paintings and Decorative arts).

Maharaja of Jaipur Museum, City Palace, Jaipur 302002. (Miniature Paintings, Costumes, Arms & Armours, Textiles, Mughal carpets etc.).

Multipurpose Cultural Museum. (Sculptures, Miniature paintings, Ethnology, Anthropology, Educational etc.)

Museum of Saraswati Bhandar, Garh, Kotah 324001. (Paintings, Costumes, Arms & Manuscripts).

Rajputana Museum, Ajmer 305001. (Sculptures, Inscriptions, Coins, Paintings).

Rana Pratap Museum, Near Pichhola lake, Udaipur 313001. (Sculptures, Inscriptions, Coins, Paintings and local crafts).

Sardar Museum, Jodhpur 342001. (Paintings, Handicrafts, Textiles, Natural History).

State Museum, Bharatpur 321001. (Excavated material from Noh (1000 B.C. and onward), Sculptures, Inscriptions, Coins and Arms).

State Museum, Mandore, Jodhpur 342001. (Science, Natural History, Paintings & Gallery).

State Museum, Mount Abu, Sirohi Dist. 307001. (Science, Paintings and Handicrafts).

Tamil Nadu

Fort St. George Museum, Madras 600001. (Paintings, Prints, Coins, Medals, Textiles, Porcelain Manuscripts etc. of early Indo-British history).

Gandhi Smarak' Sangrahalaya, Tamukkam, Madurai 625013. (Personalia Museum on Gandhiji e.g. Photographs, Relics, Manuscripts & Library).

Government Museum & National Art Gallery, Egmore, Madras 600008. (Archaeology, Stone and Bronze Sculptures, Art, Anthropology, Numismatics, Zoology, Botany, Geology, Children's section & Philately).

Government Museum, T.S. No. 6169, Big St., Tirugokarnam, Puddukkottai-2, Trichy District 620001. (Archaeology, Paintings, Costumes, Ethnology, Anthropology, Natural Sciences like Geology, Zoology and Botany).

Southern Forest Rangers College & Research Centre, P.O. R.S. Puram, Coimbatore 641002 (S. Rly.). Forest Museum.

Tipu Sultan Museum, Summer Palace, Dariya-Doulat-Bagh, Seringapatam. (Objects connected with the history of Haidar Ali and Tipu Sultan and their contemporary history).

Uttar Pradesh

Allahabad Museum, Alfred Park, Allahabad 211001. (Stone and Bronze sculptures, Terracottas, Miniature paintings, Modern Indian paintings and Gifts of Pandit Jawaharlal Nehru).

Archaeological Museum, Dampier Park, Mathura 281001. (Stone sculptures—particularly of Kushana and Gupta periods of Mathura school—Terracottas, Bronze etc.).

Archaeological Museum, Sarnath, Varanasi 221001. (Stone and Bronze sculptures, Seals, Beads, Toys, Terracottas and Pottery).

Bharat Kala Bhavan, Benaras Hindu University, Varanasi 221005. (Gandhi, Philatelic, Architecture, Bronze, Glassware, Arms, Roerich paintings, Jades, Jems, Ornaments, Modern art, Textiles, Coins, Miniature paintings, Terracottas, Sculptures, Nepal & Tibet Sections).

Maharaja Banaras Museum, Fort Ram Nagar, Varanasi 221001. (Stone sculptures, Textiles (Banaras brocades etc.), Arms, Manuscripts, Paintings, Decorative arts, Palanquins and Howdas etc.).

Motilal Nehru Bal Sangrahalaya, Motilal Nehru Marg, Charbagh, Lucknow 226001. (Exhibition and display according to the needs of the children).

Museum of Science & Culture, General Education Centre, Aligarh Muslim University, Aligarh 202001. (Science & Culture).

State Museum, Banarasibagh, Lucknow 226001. (Archaeology, Stone sculptures, Bronzes, Terracottas, Inscriptions, Anthropology, Paintings, Costumes, Ethnology & Natural History).

West Bengal

Asiatic Society of Bengal Museum, 1, Park St., Calcutta 700016. (Western paintings, Coins, Miniature paintings (Pala, Arabic, Persian etc.), Copper plates and Manuscripts).

Asutosh Museum of Indian Art, Centenary Bldg., Univ. of Calcutta, Calcutta 700012. (Archaeology, Art, Bengal Folk-Art, Paintings & Textiles).

Birla Academy of Art & Culture, 108-109, Southern Ave., Calcutta 700029. (Archaeology, Paintings, Costumes, Anthropology).

Birla Industrial & Technological Museum, 19A, Gurusaday Rd., Calcutta 700019. (Science).

Birla Planetarium & Astronomical Research Centre, 96, Chowringhee, Calcutta 700016. (Educational activities, Research problems and popularisation of Astronomy and allied fields).

Cultural Research Institute Museum, Scheduled Castes & Tribes Welfare Deptt., New Secretarial Bldgs., Block-B, 1, Hastings St., Calcutta 700001. (Ethnology & Anthropology).

Gandhi Smarak Sangrahalaya, 14, Riverside Rd., Barrackpore, 24 Parganas. (Relics, Replicas, Manuscripts, Photographs & Library).

Government Industrial and Commercial Museum, 45, Ganesh Chandra Ave., Calcutta 700013. (Industry and Commerce including folk art and handicrafts).

Indian Museum, 27, Jawaharlal Nehru Rd., Calcutta 700013. (Art, Bharhut, Gandhara and Pala Sculptures etc.,Archaeology, Anthropology, Geology and Economic Botany).

Kala Bhavan, Visva Bharati University, Shantiniketan. (Fine Arts and Handicrafts).

Rabindra Sadan, Tagore Memorial Museum, Shantiniketan. (Personalia Museum: Materials connected with the life and works of Rabindranath Tagore mainly consisting of Manuscripts, Paintings, Photographs, Voice records, Costumes, Books, Journals etc.).

State Archaeological Gallery, 33, Chittaranjan Ave., Calcutta 700013. (Pre- and Proto-historic excavated material, Terracottas, Pala Stone Sculptures, Bronzes, Wood-carvings, Textiles, etc.).

Victoria Memorial, 1, Queensway, Calcutta 700016. (Museum of Modern Indian History; Historical paintings (Oil paintings, water colour, Late Mogul paintings etc.), Statues of Historical personages, Archival objects, Manuscripts, Arms & Armours).

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(See under 'Shipbuilders, Ship Repairers' in this list).

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Sam Storage and Packing Corpn., 5, Graham Road, B. Estate, Bombay 400038.

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Devi Designers & Decorators, 69-A, Lattice Bridge Rd., Madras 600041.

Kapadia Bros., 81, Abdul Rehman St., Bombay 400003.

M. Pallonji & Co. Pvt. Ltd., 87, A. Rehman St., Bombay 400003

N. Davar & Co., Commerce Centre, Tardeo, Bombay 400034.

P. Manchershah & Co., 6-B, Forjett Crosslane, Opp. Saibaba Temple, Bombay 400026.

Osnar Paints & Contracts Pvt. Ltd., T.K. Ind. Estate, Bombay 400013.

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Dr. Sarup's Pest Control Pvt. Ltd., 5-9-88, Fateh Maidan, Hyderabad 500001.

Delhi

Anti Pest Operations (India), C/538, Defence Colony, New Delhi 110024

Dr. Sarup's Pest Control Pvt. Ltd., ABS, Comm. Centre, Safdarjung Enclave, New Delhi 110016.

Hardy's Pest Control Svcg. (Regd.), 1620, Bahadurgarh Road, Delhi 110006

Jardine Henderson Ltd., 49-50, Indra Palace, Connaught Place, New Delhi 110001.

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Mysodet Pvt. Ltd., 16/1, Residency Rd., Bangalore 560025

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Maharashtra

All India Medical Corpn., 185, Princess St., Bombay 400002.

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Paragon Pesticides, 164/4, Modi St., Bombay 400001.

Pecopp Pest Control, Opp. Portuguese Church, Dadar, Bombay 400028

Pest Chemco, 395E, D. Bhadkamkar Marg, Bombay 400004.

Pest Control, Commercial House, 87, Dr. A. Besant Road, Bombay 400018.

Pest Control Enterprises, Pushp-Vihar, 15th Rd., TPS III, Bandra, Bombay 400050.

Pest Control India Pvt. Ltd., Yusuf Bldg., M. Gandhi Rd., Bombay 400023

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Pest Treatments of India, 9/2, Azad Nagar, Off Veera Desai Rd., Andheri West, Bombay 400058.

Pestco Modern Service, Botawala Bldg., 11/13, Horniman Circle, Bombay 400023.

Pesticides Co. (Bombay) Pvt. Ltd., 19/21, Hamam St., Bombay 400001.

Pesticides Corpn., 19/20, Hamam St., Bombay 400001

Scientific Pest Control, Mulji Jetha Bldg., 185, Princess St., Bombay 400002.

Union Pesticides Corpn., 4A, Cullandas Bldg., 22, Gowalia Tank Rd., Bombay 400026.

Tamil Nadu

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Pest Control & Advisory Service, 54, Bunder Rd., Madras 600001

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Dr. Sarup's Pest Control Pvt. Ltd., 216/2A, A.J. Bose Rd., Calcutta 700017

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Pest Control & Co., 9A, R.M. Dutta Rd., Calcutta 700020.

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Mayar Printer, 2/16, Ansari Rd., Daryaganj, New Delhi 110002.
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R.K. Printers, 80-D, Kamla Nagar, Delhi 110007.
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Saifee Printing Press, 205, A. Rehman St., Bombay 400003.
Tata Press Ltd., 414, V. Savarkar Marg, Prabhadevi, Bombay 400025.
The Times of India Press, Dr. D.N. Rd., Bombay 400001.
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Indian Press Pvt. Ltd., 93A, Lenin Sarani, Calcutta 700013.
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Limton Art Press, 148, Lower Chitpur Rd., Calcutta 700001.
Mary Art Press Pvt. Ltd., 90, S.R. Ghosh St., Calcutta 700009.
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Rishon Printing Works, Kumpta St., Ballard Estate, Bombay 400038.
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National Litho Works Pvt. Ltd., 608, B. Jagtap Rd., Bombay 400011.

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Sun Lithographing Co., P.20, C.I.T. Rd., Calcutta 700010.

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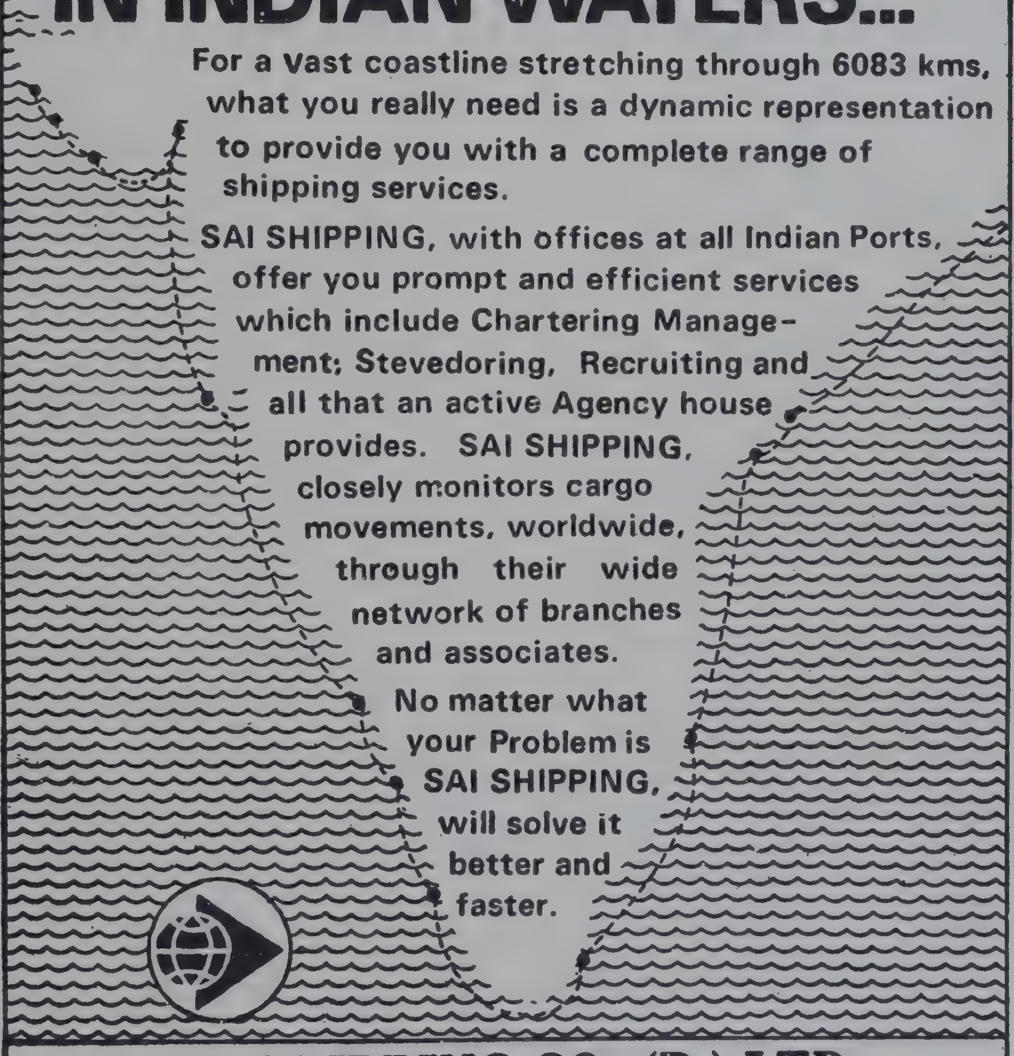

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Patel Roadways Pvt. Ltd., S. Devji St., Bombay 400003.

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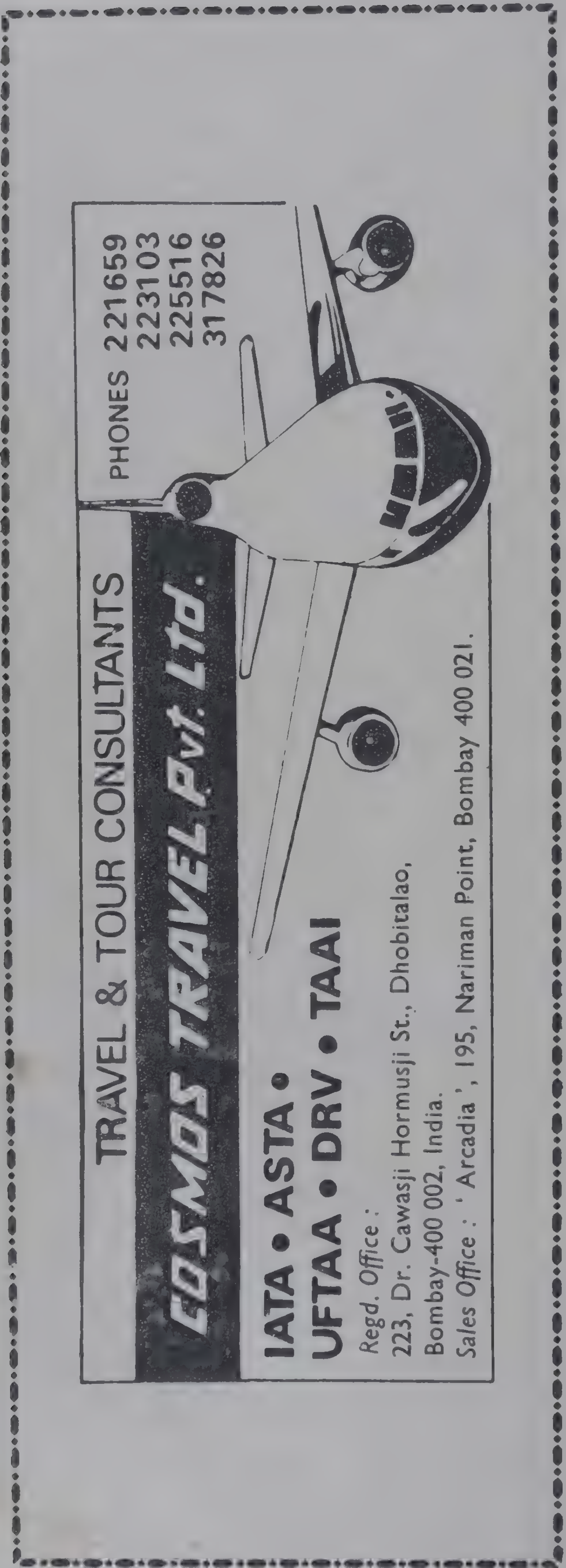

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Borewells, 25 B. Noble Chambers, Parsi Bazar St., Bombay 400001.
Caravan Borewell, 68, Thambiah Reddy Rd., W. Mambalam, Madras 600033.
Drillers India Pvt. Ltd., 54, Rajinder Nagar Mkt., New Delhi 110060.
Drilling Corpn., C-3, Bhardran Nagar, Malad, Bombay 400064.
Hydro Carbide Drilling Co., 166, Salset Rd., Kalina, Santa Cruz East, Bombay 400029.
Imperial Tubewell Co., 161/1, M. Gandhi Rd., Calcutta 700007.
Jai Malhar International, Municipal Bldg., Block D/30, Agarwada, Sion, Bombay 400022.
Meghana Drilling Co., B-19, Jivram Bhuvan, R.R.T. Rd., Mulund West, Bombay 400080.
Moona Water & Mineral Exploration Bureau, 'Parikshit', 59, Jawahar Nagar, Goregaon, Bombay 400062.
Nallathambi Agencies, 534 Anna Salai, Madras 600018.
Sri Kamatchi Tubewells, 9, Bunder St., Madras 600001.
3 'W' Hunters, Tubewell Drilling Dn., C-4-16, Mona Lisa Socy., J. B. Nagar, Borivli West, Bombay 400103.
Tube Well Corpn. of India, Zaver Banoo Terrace, 670, Parsi Colony, Dadar, Bombay 400014.

UNDERWATER SERVICES

(See under Diving & Underwater Services.)

NEWSPAPER STATISTICS

THE earliest beginnings of the press in India can be traced to the first newspaper, a weekly double sheet called "Bengal Gazette". It was started by James Augustus Hickey on January 29, 1780 at Serampore near Calcutta.

Many other newspapers followed in quick succession (19 were started before the end of the century). Most of these were in English and were published, edited and read by Englishmen. In spite of their interesting editorial contents which consisted of political and private scandals the newspaper circulation did not exceed 100.

The first Indian owned newspaper the "Bengal Gazette" was published by Gangadhar Bhattacharjee in 1816 (price Re. 1/-). Many independent and well-conducted papers flourished during the administration of Governor-General Lord Hastings, who adopted a liberal policy of self-censorship for the press in 1818. One such magazine was "Calcutta Journal" a bi-weekly with a circulation of 1,000.

However, a revision of policy by John Adam in 1823 necessitated the closure of "Calcutta Journal". Later under liberals like William Bentinck who replaced John Adam in 1828 and Sir Charles Metcalf who succeeded Bentinck, press in India enjoyed greater freedom.

Many other Indian language newspapers were started between 1816-1822. "Shri-Mumbai-na-Samachar" was started as a Gujarati weekly in 1822 by Fardoonji Marzban. It became a daily in 1832 and is the forerunner of the oldest living newspaper today, the "Bombay Samachar".

In Bengal between 1818 and 1855 as many as 99 newspapers and periodicals were started. The average life of each of these publications was 5 years. During the same period only 10 newspapers were published in the north and an insignificant number in the south.

The first railway line in 1853 and the first telegraph line in 1851 contributed to the growth and dissemination of news.

After the mutiny of 1857 restraints on the press were reimposed by Act XV of 1857. Of the 35 publications of 1853, six survived till 1857.

Important Legislation:

1. Act XXV of 1867—regulating printing presses and newspapers.
2. Vernacular Press Act of 1878—to restrain the vernacular press. Repealed four years later.
3. Indian Official Secrets Act was passed in 1889.

Important Dates:

1861 Editor Robert Knight of "Bombay Times" combined with "Standard" and the amalgamated "Telegraph and Courier" to form the "Times of India"

1865 "Pioneer" was started in Allahabad.

1868 "Amrit Bazar Patrika" was started in Calcutta.

1872 "Civil and Military Gazette" began publication.

1872 Robert Knight started "The Statesman" in Calcutta.

1878 "Hindu" was founded in Madras.

1881 Bal Gangadhar Tilak started "Kesari" in Marathi and "Mahratta" in English.

1915 Press Association of India was formed.

1935 Photogravure process was first used in India to print "The Illustrated Weekly of India".

1937 Freedom of Press granted.

1938 The Associated Press of India sent its first message on a teleprinter circuit.

1939 With the outbreak of the Second World War the Defence of India Rules were framed, Rule 41 reimposed control on the press.

1947 India's independence guaranteed freedom of the press under Articles 13 and 19 of the Indian Constitution.

1948 Audit Bureau of Circulation formed.

1949 Press Trust of India started.

1951 Press (Objectionable Matters) Act No. LVI was passed.

1952 Newsprint Control Order passed by Government of India.

1975 Congress Government imposed censorship on all newspapers and publications.

1977 Janata Government revoked censorship and restored freedom of press.

PRESENT POSITION

The 26th annual report of the registrar of newspapers for 1982 contains a study of the press during the calendar year 1981. The total number of general news interest and specialised journals rose to 19,144 in 1981 from 18,140 in 1980, an increase of 5.5 per cent. The daily press consisted of 1,264 in 1981 as against 1,173 in the previous year, an increase of 7.8 per cent.

Of the total newspapers published in India periodicals constituted 92.9 per cent.

New Newspapers: During 1981, as many as 931 newspapers and periodicals commenced publication. Among them 65 were dailies, four tri/bi-weeklies, 349 weeklies, 162 fortnightlies, 264 monthlies 73 quarterlies, the remaining were annuals and other bi-monthlies or half-yearlies. Language-wise, among the new newspapers, Hindi with 367 publications topped the list; followed by English with 134, Bengali 78, Urdu 63 and Marathi 5. There were 64 bilinguals which made their maiden appearance during 1981. Those that went out of publication numbered 56.

Language Press: (A term used for Indian language newspapers and periodicals).

Newspapers were published in 84 languages in 1981. Apart from the 16 principal languages, these included 68 other languages. The largest number of newspapers were brought out in Hindi 5,329, followed by English with 3,583, Bengali 1,463, Urdu 1,299 and Marathi 1,098. Hindi dailies numbered the highest with 409, followed by Urdu 128, Marathi 120, English 105 and Malayalam 101. During 1981 Malayalam became the fifth language to have more than hundred dailies. As regards circulation the Hindi press again topped the list with 13.98 million copies and English coming second with 11.04 million copies. Kashmiri was the only principal language without a daily.

Ownership Pattern: Out of the total of 19,144 newspapers and periodicals 12,521 were owned by individuals, 3,240 by societies and associations, 956 by firms and partnerships, 782 by joint stock companies and 597 by Central and State Governments.

Circulation: The total circulation of all newspapers and periodicals in 1981 was 51.10 million copies compared to 50.92 million in 1980, a rise of 0.4 per cent. The total circulation of dailies improved by 5.0 per cent over 1980 to 15.25 million copies. The total circulation of periodicals in 1981 was 35.7 million copies.

Among the single edition papers "Ananda Bazar Patrika", a daily from Calcutta held the top position with 416,514 copies. "Jugantar" also another Bengali daily from Calcutta, retained the second position with 314,018 copies.

Among the multi-edition dailies, "Malayala Manorama", published in Malayalam simultaneously from Calicut, Cochin and Kottayam, had the largest circulation of 526,014 copies. Among the English multi-edition dailies "The Times of India , from Bombay, Delhi and Ahmedabad, had the highest circulation of 522,900 copies with the "Indian Express", published from ten centres following a second with 455,992 copies.

Weeklies contributed to 42.9 per cent of the total circulation of periodicals. Of these "Malayala Manorama", a Malayalam weekly from Kottayam topped the list with 565,591 copies, while "Kumudam", a Tamil weekly, followed with 560,646 copies.

Uttar Pradesh had the largest number of weeklies 1,342 followed by West Bengal 313. Among the fortnightly publishers, Uttar Pradesh again ranked first with 295, Delhi 290, Rajasthan 268 and Maharashtra 226. Monthlies came out most from Delhi 1,101, Maharashtra 942, West Bengal 712, Uttar Pradesh 666, Tamil Nadu 650 and Kerala 549. Maharashtra was the only state to have more than 100 annuals—113.

State-wise: Uttar Pradesh led with 2,702 newspapers, followed by Maharashtra 2,560, Delhi 2,325, West Bengal 2,115, Tamil Nadu 1,216, Andhra Pradesh 1,068, Kerala 1,005, Karnataka 943, Madhya Pradesh 691, Gujarat 652, Bihar 614 and Punjab 600.

Circulation-wise, Maharashtra led with a total of 8.65 million copies followed by Delhi 7.29 million.

In the publishing of dailies Uttar Pradesh topped with 178 newspapers, followed by Maharashtra with 166, Karnataka 105, Tamil Nadu 104 and Madhya Pradesh 102. Not a single daily appeared from Nagaland, Dadra and Nagar Haveli and Pondicherry.

In circulation Maharashtra led with 2.38 million copies. States with circulation of more than one million copies of dailies were West Bengal 1.74, Tamil Nadu 1.49, Kerala 1.46, Delhi 1.38, Uttar Pradesh 1.27 and Gujarat 1.06 million. The last state crossed the million mark in 1981.

As many as 5,767 newspapers, 30.1 per cent, were published from the four metropolitan cities out of which were 209 dailies. Language-wise English dominated in these cities with 62.4 per cent. Thirty major cities with more than 100 newspapers accounted for 58 per cent of the total newspapers in India.

City-wise, Delhi had 6,325 newspapers, Bombay 1,331, Calcutta 1,297, Madras 814, Bangalore 607, Hyderabad 584, Kottayam 150, Trichur 145. Indore 107, Allahabad 107, Moradabad 104, Saharanpur 103, Varanasi 101 were other cities which published more than a hundred newspapers.

IMPORTANT LEGISLATION

(1983)

January 17: The Governor of Maharashtra promulgates an ordinance called Maharashtra zilla parishads and panchayat samitis (Amendment and Continuance) ordinance, 1983.

February 2: The central excise and salt act, 1944 extended to Sikkim; **16:** The salaries and allowances of ministers (amendment) bill, 1983 passed by Tripura L.A.; **23:** M.P. L.A. passes the M.P. *lokayukta* and *upa lokayukta* (amendment) bill replacing an ordinance; President grants assent to the Maharashtra ownership flats (regulation of the promotion of construction, sale, management and transfer) extension of duration bill, 1982; **25:** Governor of Maharashtra issues ordinance taking over all private water resources in the state.

March 11: The Jammu & Kashmir L.A. passes the criminal law amendment bill, 1983. **21:** A.P. L.A. passes two controversial bills—one on termination of pension to ex-legislators and the other on banning of capitation fees.

April 11: Ordinance promulgated amending the *lokayukta* act in Bihar; **15:** President gives assent to Maharashtra forest development (tax on sale of forest-produce by Govt. or forest Development Corpn.) (Continuance) act, 1983; **16:** Pres. gives assent to the police (incitement to disaffection) (Maharashtra amendment) Act, 1983.

May 2: Rajya Sabha passes appropriation bill (No. 3), 1983; **3:** Lok Sabha passes central industrial security forces (amendment) bill: Lok Sabha passes African development bank bill; **4:** Parliament approves the merchant shipping (amendment) bill, 1982; **17:** Govt. of Maharashtra promulgates ordinance to amend the Bombay public trust act, 1950; **20:** The Bombay metropolitan region development act, 1974 reorganised by an ordinance promulgated by governor I. H. Latif; **26:** Ordinance promulgated to provide *lokayukta* for Himachal Pradesh.

June 18: Ordinance promulgated to repeal the Maharashtra public service (subordinate) selection boards act, 1973, **25:** The Tamil Nadu press act, 1982, repealed.

July 2: Ordinance promulgated on the regulation of extraction and use of ground water in Tamil Nadu; **11:** Ordinance on banning of capitation fees in Karnataka promulgated; **13:** The Bombay metropolitan region development authority (BMRDA) amendment bill passed by Maharashtra legislative assembly; **14:** Maharashtra legislative council passes bill to repeal the lepers act, 1898; **20:** The Amravati university bill passed by Maharashtra legislative assembly.

August 1: The Lok Sabha passes the national oilseeds and vegetable oils development board bill and the vegetable oils cess bill; **5:** The Lok Sabha passes the electricity (supply) amendment bill; **8:** M.P. govt. issues the industrial dispute (amendment) ordinance; **10:** The arms (amendment) bill passed by the Lok Sabha; **16:** The societies registration (Delhi amendment) bill, 1983, passed by the Lok Sabha; the Lok Sabha passes the appropriation (number four) bill; **25:** Parliament passes the emigration bill, 1983; Parliament approves the copy right bill, 1983.

September 11: The cine workers welfare cess act receives assent of the President.

October 15: The armed forces (Punjab and Chandigarh) special powers ordinance, 1983, promulgated by Pres., Pres. promulgates the illegal migrants (determination by tribunals) ordinance, 1983; **19:** The textile undertakings (taking over of management) ordinance, 1983 passed; **25:** Ordinance amending the Bombay Municipal Corporation Act promulgated.

November 17: The Lok Sabha passes three bills replacing presidential ordinance declaring Punjab and Chandigarh as disturbed areas; the Bombay land requisition act, 1948 amendment ordinance passed; **21:** Rajya Sabha passes three bills—the Punjab disturbed areas bill, 1983, the Chandigarh disturbed areas bill, and the armed forces (Punjab and Chandigarh) special powers bill, 1983; **22:** An ordinance amending the Maharashtra debt relief act, 1975 promulgated.

December 1: The criminal law (amendment) bill passed by the Lok Sabha; the Maharashtra legislative council passes the shree siddhi vinayak Ganapati temple trust (Prabhadevi) amendment bill; the Mah. legislative council also passed the Maharashtra ownership flats (regulation of the promotion of construction, sale, management and transfer) (amendment and validating provisions) bill; **5:** The Maharashtra legislative Assembly passes bill empowering govt. to appt. two addl. municipal commissioners; the Maharashtra ownership flat act, 1963, passed by the legislative council; **13:** The Rajya Sabha passes the textile undertaking (taking over of management) bill, 1983; **15:** The Kerala legislature passes the anti-corruption bill; **19:** The Rajya Sabha passes Assam tribunals bill; the Lok Sabha approves the Punjab panchayat samitis and zilla parishads (temporary supersession) second amendment bill; the public financial institutions (obligation as to fidelity and secrecy) bill, 1983 passed by Lok Sabha; **20:** The Lok Sabha passes the banking laws (amendment) bill; **21:** The Rajya Sabha passes the essential commodities (amendment) bill, 1983; a bill to amend the Indian penal code, the code of criminal procedure and the Indian Evidence Act pased by the Lok Sabha; **22:** The Rajya Sabha adopts the public financial institutions (obligation as to fidelity and secrecy) bill, 1983.

HISTORIC DATES 3102 B.C.—1981 A.D.

(Whilst attempts have been made to compile all historic dates from various records, the Editor regrets any omissions. The reader is requested to draw our attention to any missing dates. Since the exact date and month are not available, we give below year-wise data up to 1899.)

B.C. 3102 - B.C.. 58

3102 (c)* - Kaliyuga Era commences; Kurus and Pandavas fight the Great War, **544(c)** - Buddha attains *Nirvana*. **527(c)** - Mahavira attains *Nirvana*. **327-326** - Alexander the Great invades India. **323** - Alexander the great dies in Babylon. **322(c)** - Chandragupta Maurya becomes ruler. **273-232(c)** - Period of Emperor Asoka. **58(c)** - Era of Vikramaditya begins.

A.D. 66 - A.D. 1611

66(c) - Kasyapa Matanga and Gobharana, Indian Buddhist monks visit China. **78** - Saka Era commences; Kushan dynasty in Panjab consolidated. **120-162 (c)** - Period of Emperor Kanishka. **320** - Gupta Era commences. **405-411** - Fa - Hien travels all over India. **476** - Astronomer Aryabhata is born. **566(c)** - Chalukya King, Kirtivarman I becomes ruler. **606** - Emperor Harshavardhana becomes king. **609** - Pulakeshin II becomes ruler. **622** - Hijra Era commences. **629** - Hieun Tsang travels all over India. **642(c)** - Pulakeshin II dies. **645** - Hiuen Tsang returns to China. **646 - 647** - Emperor Harshavardhana dies. **674** - Vikramaditya I assumes power; Chalukya and Pallava dynasty begin; Paramesvaravarman assumes power. **962(c)** - Kingdom of Ghazni founded. **998** - Sultan Mahmud assumes power. **1012 - 1044** - Period of Rajendra Chola I. **1026** - Sultan Mahmud raids and destroys Somnath temple. **1076 - 1148(c)** - Temple of Jagannatha at Puri constructed. **1106 - 1141(c)** - Period of Vishnuvardhana Hoysala. **1185-1205(c)** - Rule by Lakshmana Sena in Bengal. **1192** - Qutb-ud-din captures Delhi. **1206** - Qutb-ud-din becomes Sultan of Delhi. **1221** - Chingiz Khan invades India. **1231** - Foundation laid for the construction of Qutb Minar. **1288** - Marco Polo visits Kayal. **1290** - Slave dynasty falls; Jalal-ud-din Khalji assumes power. **1296 - 1316** - Period of Ala-ud-din Khalji. **1325** - Ghiyas-ud-din expires; Muhammad Tughluq assumes power. **1327(c)** - Capital of India transferred to Daulatabad from Delhi. **1336** - Kingdom of Vijayanagar established. **1338 - 1339** - Bengal becomes independent Sultanate. **1342** - Ibn Batuta leaves for China on mission. **1347** - Bahmani kingdom established. **1430 - 1469(c)** Period of Rana Kumbha in Mewar. **1451** - Tughluq dynasty falls; Bahlul Lodi assumes power. **1469** - Guru Nanak is born. **1490** - Ahmadnagar becomes independent Sultanate. **1509** - Krishnadeva Raya assumes power; Albuquerque appointed Portuguese Governor in India. **1509-1527(c)** - Period of Rana Sanga in Mewar. **1510** - Portuguese capture Goa. **1512-1518** - Golkonda becomes independent Sultanate. **1526** - First battle of Panipat; Babur assumes power; Mughul rule commences. **1530** - Babur dies; Humayun assumes power. **1535** - Bahadur Shah defeated by Humayun. **1538** - Humayun invades Bengal; Guru Nanak dies. **1542** - Akbar is born at Umarkot. **1545** - Sher Shah dies; Islam Shah assumes power. **1556** - Humayun dies; Akbar assumes power; second battle of Panipat. **1564** - Akbar abolishes Jizya; defeats Rani Durgavati and annexes her kingdom. **1565** - destruction of Vijayanagar city due to battle of Talikota. **1571** - Construction of Fatepur Sikri. **1582** - Akbar promulgates Din Ilahi. **1589** - Todar Mal and Bhagwan Das die. **1600** - London East India Company granted Charter; Mughuls storm Ahmednagar. **1602** - Abul Fazl dies; United East India Company of Netherlands is formed. **1605** — Akbar dies; Jehangir assumes power. **1609** - Hawkins arrives at Agra; Dutch Company established at Pulicat. **1611** - Jehangir marries Nur Jahan; Hawkins leaves Agra; Great Britain opens factory at Masulipatnam.

A.D. 1613—1899:

1613 - Jahangir grants a *firman* to East India Company. **1625** - Dutch company established at Chinsura. **1630(c)** - Shivaji is born. **1634** - *Firman* granted to English people to trade in Bengal. **1636** - Aurangzeb appointed viceroy of Deccan. **1639** - Fort St. George built by English in Madras. **1651** - English company established at Hugli. **1653** - Dutch company established at Chinsura. **1658** - Coronation of Aurangzeb. **1664** - Shivaji conquers Surat; East India Company of France is formed; Shivaji assumes royal title. **1666** - Shah Jahan dies; Shivaji visits Agra; escapes from prison. **1668** - Aurangzeb issues religious ordinances adversely affecting Hinduism; East India Company given permission to have business in Bombay; French company established at Surat. **1672** - Revolt by Afridis; Satnami rebellion. **1674** - New State of Pondicherry established; Shivaji assumes title of Chhatrapati. **1675** - Sikh Guru, Teg Bahadur executed. **1680** - Shivaji dies; Prince Akbar rebels. **1690** — Job Charnock lays foundation of Calcutta. **1698** - East India Company acquires zamindari of Sutanati, Kalikata and Govindapur. **1702** - English and London East India Companies amalgamate. **1707** - Aurangzeb dies; Bahadur Shah I assumes power; **1708** - Guru Govind Singh dies; Shahu becomes King of Marathas. **1717** - Emperor Farruksiyar issues *firman* to East India Company. **1720** - Baji Rao I succeeds as Peshwa. **1739** - Nadir Shah conquers Delhi; Suja-ud-din dies; Sarfaraz appointed Governor of Bengal; Marathas capture Bassein and Salsette islands. **1742** - Bengal invaded by Marathas; Dupleix appointed Governor of Pondicherry. **1744-48** - First Anglo French (Carnatic) war. **1747** Ahmad Shah Abdali invades India. **1750-54** - Second Carnatic War. **1757** - English captures Chandernagore; Battle of Plassey; Mir Jafar appointed as Nawab; Siraj-ud-Daulah captured and executed. **1761** - Third battle of Panipat; Pondicherry surrendered to English; Haidar Ali becomes king of Mysore. **1764** - Battle of Buxar. **1765** - Clive appointed second Governor of Bengal. **1770** - Great famine of Bengal. **1772** - Warren Hastings becomes Governor of Bengal. **1773** - Regulating Act promulgated. **1774** - Supreme Court established in Calcutta; Warren Hastings appointed as Governor-General. **1784** - Second Mysore War ends by treaty of Mangalore; Pitt's India Act comes into force. **1785** - Warren Hastings resigns as Governor-General. **1786** - Lord Cornwallis becomes Governor-General. **1793** - Agreement signed on permanent settlement of land-revenue in Bengal; Lord Cornwallis retires; Sir John Shore appointed Governor-General. **1799** - Fourth Mysore War waged; Tipu Sultan dies; Ranjit Singh becomes Governor of Lahore; William Carey opens Baptist Mission at Serampore. **1800** - Nana Fadnavis dies. **1801** - Carnatic becomes part of British Empire. **1806** - Vellore Mutiny suppressed. **1807** - Lord Minto I becomes Governor-General. **1809** - Treaty of Amritsar signed by English and Ranjit Singh. **1820** - Sir Thomas Munro appointed Governor of

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*c.—Circa.

Madras. **1823** - Lord Amherst appointed Governor-General. **1824** - Mutiny of Barrackpore. **1828** - Lord William Bentinck becomes Governor-General; Sutte *(Satidaha)* abolished; **1829-1837** - Law on suppression of Thuggees. **1834** - Lord Macaulay appointed first Law Member in Supreme Council. **1835** - Calcutta Medical College founded; Lord William Bentinck retires; Sir Charles Metcalfe appointed officiating Governor-General; Law passed for abolition of press restrictions. **1837-38** - North India famine. **1838** - English, Shah Shuja and Ranjit Singh sign tripartite treaty. **1848** - Lord Dalhousie becomes Governor-General; Law on Doctrine of Lapse passed; Satara annexed. **1849** - Chillianwalla and Gujarat battles; Punjab annexed; Bethune school for girls established in Calcutta; Jaitpur and Sambalpur annexed. **1853** - First railway in India from Bombay to Thana opened; telegraph line from Calcutta to Agra laid; I.C.S. entrance thrown open to competition. **1856** - Oudh annexed; Acts on Indian Universities, Religious Disabilities and Hindu Widow's Re-marriage passed; Enfield rifles and greased cartridges introduced. **1857** - Sepoy Mutiny at Meerut. **1859** - Doctrine of Lapse withdrawn; Betrayal of Tantia Topi; Indigo dispute begins in Bengal. **1860** - Enactment of Indian Penal Code. **1861** - Act on Indian Councils passed; High Courts established; Enactment of Criminal Procedure Code. **1862** - Lord Canning retires; Lord Elgin I becomes Viceroy; High Courts established merging Supreme and Sadar Courts. **1868** - Railway from Ambala to Delhi opened. **1877** - Queen Victoria assumes sovereignty of India. **1881** - First General census takes place. **1882** - Vernacular Press Act repealed; Hunter Commission appointed. **1883** - Ilbert Bill and also legislation establishing local self-government in India passed. **1892** - Enactment of Indian Councils Act. **1896** - Plague and famine ravage Bombay. **1899** - Lord Curzon appointed Viceroy.

1900

March 5 — Indian Plague Commission submits report on Mr. Haffkine's innoculation system. **December 9** — Swami Vivekananda disembarks in Bombay and entrains for Calcutta. **27-29** — Sixteenth annual session of Indian National Congress meets at Lahore. N. G. Chandavarkar presides.

1901

January 16 — Mahadeva Govinda Ranade passes away in Bombay. He was an eminent leader of Indian National Congress. **November** — M. K. Gandhi leaves Natal (South Africa) for India. **December 19** — M. K. Gandhi arrives in Bombay. **20** — Gopal Krishna Gokhale becomes additional member of Council of Governor-General of India. **22** — Rabindranath Tagore inaugurates his *Brahmacharya Ashram* (school) at Shantiniketan. **26-28** — Seventeenth session of Indian National Congress meets at Calcutta. Dinshaw E. Wacha presides.

1902

March 26 — Gopal Krishna Gokhale delivers his first budget speech in Imperial Legislative Council. **July 12** — Swami Vivekananda passes away at the age of 39. **August 6** — Govt. published Blue Book on famine and relief operations. Figures show mortality during the year is 750,000 which includes 230,000 deaths due to cholera and plague. **December 23-26** — Surendranath Banerjee delivers 18th presidential address of Indian National Congress.

1903

January 1—3 — Coronation Durbar at Delhi proclaims King Edward VII as Emperor of India. **August 22** — Bal Gangadhar Tilak advocates boycott of articles of British manufacture in a students' meeting at Poona. **December 28-30** — 19th session of Indian National Congress meets at Madras under presidentship of Lal Mohan Ghose.

1904

April — Mahatma Gandhi establishes *Indian Opinion*, Weekly journal representing Indians' point of view, in Phoenix, South Africa. **August 8** — Lord Curzon gets extension as Viceroy of India. **14**—Dadabhai Naoroji criticises British Imperialistic policies in India at the International Socialist Congress at Amsterdam.

1905

April 13 — Earthquake wrecks towns of Sultanpur and Mandi killing about 15,000 people. **30** — In India plague kills 57,000 in a week according to reports. **August 19** — King of England accepts resignation of Lord Curzon and appoints Lord Minto as Viceroy. **September 1** — Govt. of India, in a proclamation, announces partition of Bengal from October 16, 1905 — and appoints J. B. Fuller as Lieut. Governor for Eastern Bengal. **December 27-30** — G. K. Gokhale delivers 21st Presidential address of Indian National Congress at Banares.

1906

January—Prince and Princess of Wales visit India. **August 6**—Sri Aurobindo Ghose starts *Bande Mataram* under his editorship. **December 26-29**—The 22nd session of Indian National Congress meets at Calcutta under the presidentship of Dadabhoy Naoroji. **27** — Members of Indian deputation (G. K. Gokhale and Lala Lajpat Rai) sail for England. **30** — Muslim Educational Conference at Dacca resolves to form the All-India Muslim League for furtherance of its objects.

1907

January 2 — Bal Gangadhar Tilak and G. K. Gokhale embark upon nation-wide campaign to convince public of their respective party's position. **May 9** — Police arrests Lala Lajpat Rai and deports him to Mandalay. **December 26-27** — Rash Behari Ghosh presides over 23rd session of Indian National Congress at Surat.

1908

April 30 — Khudiram Bose, a young man of 18, kills two English ladies by throwing bomb meant for Mr. Kingsford, Dist. Judge. **June 13** — Khudiram Bose gets death sentence for murder of two English ladies—Mrs. and Miss Kennedy—in bomb attack. **24** — Bombay police arrests B. G. Tilak for his article *The Country's Misfortune* in *"Kesari"* dated May 12, under sections 124-A and 153-A of I.P.C. **August 18** — Madame Cama, India's first woman revolutionary, unfurls India's National Flag in foreign country. **October 24** — Chittaranjan Das devotes himself to Sri Aurobindo's Alipore Bomb Conspiracy case. **December 29-30** — Rash Behari Ghosh presides over 23rd session of Congress at Madras.

1909

May 6 — Judgment in Alipore Conspiracy case awards death to two, transportation for life to 7, penal servitude to 5 and acquits 22. **August 19** — Sir Badruddin Tayabji dies. **November 13** — Viceroy Lord Minto, escapes bomb attack. **13-22** — Gandhiji sails for South Africa. He writes his 30,000-word manuscript, Hind Swaraj, on board s.s. "Kildonian Castle". **27-29** — Madan Mohan Malaviya presides over the 24th session of Congress held at Lahore.

1910

April 25 — Gandhiji writes to G. K. Gokhale from South Africa assessing the progress of the Indian struggle for equal rights. **September 30** — Plague claims 448,319 lives in 12 months according to official statistics. **November 22** — Lord Hardinge of Penhurst succeeds Lord Minto as Viceroy of India. **December 26-29** — The 25th session of Congress meets at Allahabad. Sir William Wedderburn presides.

1911

March 18 — Fifth decennial census places total population of India at 315,156,396. **September 30** — Plague takes lives of 713,377 people in past 12 months according to official statistics. **December 2**— King George and Queen Mary, first British Sovereigns to visit India, arrive in Bombay. **12** — King holds Coronation Durbar at Delhi, announces shifting of capital from Calcutta to Delhi. **15** — King lays foundation for new Govt. buildings at Delhi. **26-28** — Bishan Dhar delivers the 26th Presidential address of Indian National Congress at Calcutta.

1912

January 10 — King George and Queen Mary leave India for England. **June** — G. K. Gokhale sails for England. **December 23** — Lord Hardinge escapes bomb attack by Rash Behari Bose, a Govt.

servant. **26-28** The 27th Indian National Congress meets at Bankipur. R.N. Mudholkar presides. Jawaharlal Nehru attends session for the first time.

1913

December 26—The 28th session of Indian National Congress meets at Karachi under the presidentship of Nawab Mohammad.

1914

June — Lokmanya Tilak is released after his term of imprisonment from Mandalay. **December 17** — Gandha Singh commits dacoity in Papali Village of Hissar district to raise funds for revolutionaries. Instead of Gandha Singh, Pandit Kanshi Ram and associates were hanged. **28-30** — Bhupendranath Basu delivers the Presidential address of the Indian National Congress at Madras.

1915

February 19 — Gopal Krishna Gokhale passes away. **22** — M.A. Jinnah in his tribute to Gokhale says: He was a great man, respected by Muslims as much as Hindus and trusted by both. **April 30** — In Lahore Sedition case leader Bhai Para and 23 others get death sentence and 27 transportation for life. **November 5** — Sir Pherozeshah Mehta, a founder of Indian National Congress, dies. **December 27-30** — Satyendra Prasanna Sinha delivers the 30th Presidential address of Indian National Congress.

1916

February 4 — Mahatma Gandhi performs opening ceremony of Banares Hindu University. **10** — Sohan Lal Pathak was executed in Mandalay. **April 4** — Frederick John Napier Theisger assumes office as Viceroy. **September** — Rabindranath Tagore sails for United States. **3** — Mrs. Annie Besant founds Home Rule League. **December 26-30** — Ambika Charan Mazumdar, delivers the 31st Presidential address of Congress at Lucknow. Jawaharlal Nehru meets Mahatma Gandhi for first time.

1917

February 9 — Gandhiji addresses the Imperial Citizenship Association and condemns inhuman system of indentured labour. **23** — Commissioner of Delhi serves notice prohibiting Lokmanya Tilak from entering Delhi Province. **April 10** — Gandhiji meets Dr. Rajendra Prasad at Patna and J. B. Kripalani in Muzaffarpur in connection with indigo planters of Champaran. **14** — Gandhiji receives notice from the Commissioner to quit Champaran. He visits neighbouring villages and meets peasants of area. **June 30** — Dadabhoy Naoroji, Grand Old Man of India, dies. (He was a founder member of Indian National Congress and delivered presidential addresses in 1886, 1893 and 1906). **August 20** — British Government announces Montague Scheme regarding responsible government for India as a goal of British policy. **November 29** — Air Force Constitution Act comes into force. **December 26-29** — Mrs. Annie Besant delivers 32nd Presidential address of Indian National Congress at Calcutta.

1918

March 22 — Viceroy unveils marble bust of Gopal Krishna Gokhale. **March 29-31** — Hindi Sammelan meets at Indore, Gandhiji presides. **April 2** — British Prime Minister appeals to Govt. and people of India to save Asia from German tyranny. **27-29** — Madan Mohan Malaviya and Gandhiji attend War Conference convened by Viceroy in Delhi, Gandhiji addresses Conference in Urdu. **May 9** — Mrs. Sarojini Naidu presides over 24th Madras Provincial Conference at Conjeevaram. **August 21** — All India Moderate Conference meets in Bombay with Sir D. E. Wacha as Chairman and Surendranath Bannerjee as President. **22** — Council of Servants of India Society resolves to abstain from Special Congress of Moderates. **31** — All India Muslim League meets at Bombay under Chairmanship of Raja Saheb of Mohmudabad. **29-September 1** — Special session of Indian National Congress meets in Bombay under presidentship of Mr. Imam Hasan. (The session was called to discuss the Montague-Chelmsford Reforms which disappointed Indians). **October 8** — Gandhiji moves *Young India* from Bombay to Ahmedabad. **November 13** — B. G. Tilak writes to British Prime Minister, Mr. Lloyd George, on behalf of Home Rule League and Indian National Congress, expressing hope for peace, liberty and human co-fraternity for India, as defined in Armistice signed on November 11, 1918. **December 26-31**—Madan Mohan Malaviya presides over 33rd Session of Indian National Congress. He denounces Montague-Chelmsford Reforms.

1919

January 1 — Mrs. Annie Besant presides over All India Ladies Conference. Government publishes Rowlatt Report. **February 8** — Mopla revolt breaks out in Malabar coast of Kerala. **28** — Gandhiji issues press statement condemning Rowlatt Bill. **March 23**— Gandhiji begins fast and exhorts *hartal* throughout India as protest against Rowlatt Bill. **28** — M. A. Jinnah writes to Viceroy to say Rowlatt Bill shocks all Indians. **31** — Military attacks peaceful satyagrahis in Delhi. **April 6** — Madan Mohan Malaviya resigns from Imperial Council. Whole of India observes *hartal*. **10** — Rowlatt Bill riots take place at Ahmedabad. **12** — Demonstrators clash with police at Lahore, Bombay, Calcutta and Amritsar. **13** — Gen. Dyer proclaims martial law and bans public meetings at Amritsar. Later at Jallianwala Bagh Gen. Dyer's men open fire on peaceful meeting and kill nearly 400 and injure more than 1,000. **15** — Martial law comes into force in Lahore. **16** — Serious riots break out in Gujranwala, Akalgarh, Hafizabad. **22** — Gen. Campbell orders inhabitants of Gujranwala to salute all British officers. **26** — Govt. arrests Benjamin Guy Horniman, editor, *Bombay Chronicle* and deports him to England. **May 11** — Mrs. Annie Besant resigns presidentship of Home Rule League. **27** — Dr. Rabindranath Tagore returns to Govt. of India title "Knight" conferred on him. **June 3** — Madan Mohan Malaviya gets elected to Viceregal Council. **8** — Maulana Shaukat Ali and Mohammad Ali are lodged in Tul Jail. **24** — Gandhiji presides at Bombay meeting protesting the deportation orders on Horniman and Rowlatt legislation. **July 19** — Sir Sankaran Nair resigns membership of Executive Council of Viceroy in protest against Martial Law. **October 17**—India celebrates *Khilafat* Day. **November 8**—Nationalist Council meets in Madras. **15**—C. F. Andrews leaves for South Africa. **23**—All India *Khilafat* Conference meets at Delhi. **December 25** — Maulana Mohammad Ali joins Indian National Congress. **27** — Motilal Nehru delivers 34th Presidential address of Indian National Congress at Amritsar.

1920

January 1 — King of England orders release of Maulana Abul Kalam Azad and other political prisoners. **10** — India becomes a member of League of Nations. **18** — Maulana Abul Kalam Azad meets Gandhiji in connection with *Khilafat* movement. **19** — Gandhiji leads *Khilafat* deputation to Viceroy. **February 21** — *Khilafat* conference meets at Meerut. Gandhiji reveals his non-co-operation programme for first time. **26** — First Indian *Khilafat* deputation reaches London. **March 14** — Police raids office of Bengal Provincial *Khilafat* Committee. **20** — Congress Democratic Party brings out its manifesto. **April 28** — Gandhiji becomes president of Home Rule League. **June 2** — Govt. of India publishes revised draft rules for Provincial councils, Indian Legislative Assembly and Council of State in a Gazette Extraordinary. **August 1** — Bal Gangadhar Tilak passes away. Gandhiji returns his Kaiser-i-Hind medal and Boer War Medal to Viceroy. **September 4-9** — Congress Session meets at Nagpur; C. Vijairaghavachariar delivers 35th presidential address. **8** — AICC's special session at Calcutta passes Gandhiji's resolution on non-co-operation. **December 26-31** — 36th Annual session of Congress meets at Ahmedabad under presidentship of Hakim Ajmal Khan.

1921

January 13 — R. N. Mudholkar passes away. **19** — C. R. Das, eminent Barrister of Calcutta, suspends practice and resolves to devote life for Nation's cause. **31** — Gandhiji inaugurates Gauria Sarva Vidyayatan (Bengal National College) with Subhash Chandra Bose as first principal. **February 9** — Government serves Lala Lajpat Rai with prohibitory orders from entering North West Frontier Province to make enquiries regarding grievances of people there. **20** — Mahant Narayan Das and group of Nankana in Punjab kill 150 Akali Sikhs. **April** — Subhash Chandra Bose resigns from Indian Civil Service and joins politics as an aggressive nationalist. **1** — AICC meets at Bezwada and decides to collect Rs. 10 million for Tilak Swaraj Fund. **2** — Lord Reading assumes office as Viceroy of India. **13**—Gandhiji meets Viceroy. People all over India observe Jallianwala Bagh anniversary. **22** — A new political party "Indian Progressive Federation" comes into being under leadership of Aga Khan. **23** — Sarojini Naidu urges ladies at Bombay meeting to discard foreign clothes and take to spinning and hand-made cloth. **May 3** — Swami Govindananda receives sentence of transportation for 5 years in connection with N.C.O. work. **July** — Rabindranath Tagore returns to India from Europe. **1** — Gandhiji announces Tilak Swaraj Fund exceeds Rs. 10 million. **16** — Subhash Chandra Bose meets Gandhiji in Bombay to discuss ways and means to achieve independence. **29** — Govt. of India publishes "Agreed Summary" of Gandhi—Reading (Viceroy) interview. **31** — People light a huge bonfire of foreign cloth, worth millions of rupees, in presence of Gandhiji in Bombay. **August 20** — Mopla Rebellion breaks out at Tirurangadi, Malabar, Kerala. **24** — Govt. of India declares Martial Law in disturbed parts of Malabar, Kerala. **29** — Mrs. Annie Besant presides over Bombay Provincial Reforms Conference. **30** — Labour disturbances break out in Bombay mill areas. **September 1** — Picketing at foreign cloth shops begins at Barabazar, Calcutta. **10** — Marwari Chamber of Commerce representatives meet Gandhiji in connection with boycott of foreign cloth. **18** — Indian National Congress elects C. R. Das as its president. **20** — Dr. S. C. Banerjee was sentenced to one year's jail for N.C.O. work. **26** — Trial of Ali Bros. begins at Karachi. **October 8** — Gandhiji lights second bonfire of British cloth in Bombay. **17** — Mahant Narain Das of Nankana Sahib of Punjab and 7 others are sentenced to death and 17 others to 7 years R.I. for murder of Akali Sikhs. **30** — Police detachment attacks Mopla rebels and kills 26. In attack 7 policemen die. **November 2** — Mopla leader Ali Musaliar and 37 others are sentenced to death. **4** — AICC at Delhi authorises programmes of civil disobedience and boycott of foreign cloth. **6** — C. R. Das along with 4 others are arrested and beaten by police in Calcutta for picketing foreign cloth shops. **13** — Ahmedabad P.C.C. decides Bardoli and Kaira as venues to start Civil disobedience from November 23. **18** — Gandhiji undergoes 5-day fast. **20** — 100 Mopla prisoners carried in closed goods wagon of a train die of asphyxia. **December 6** — Mopla revolt comes to halt. (Since outbreak of revolt 1,826 Moplas were killed, 1,500 wounded, 5,400 captured and 14,000 surrendered). **7** — C. R. Das, Urmila Devi, Suniti Devi and others are arrested for selling *Khaddar*. **16** — S. Srinivasa Iyengar renounces title and seat in Council in protest against Govt. repression. **22** — Trials of Lala Lajpat Rai, Santanam, Gopi Chand and Malik Lal Khan begin at Lahore Central jail. **23** — Inauguration of Visva Bharati takes place. Properties at Shantiniketan are legally transferred to it by trust deed. Mahadev Desai gets 1-year R.I. for publishing manuscript edition of *Independent*. **24** — Prince of Wales arrives in Bombay. City observes *hartal*. **27-28** — 36th session of Congress meets at Ahmedabad. Hakim Ajmal Khan, acting president, delivers address as president; C. R. Das is in jail.

1922

January 7 — Police arrests Mopla King V. Kunhamad Harf in Malabar. **13**—Prince of Wales arrives in Madras where *hartal* is observed. Police opens fire on mob. **25** — Amendment of Factory Act provides 60-hour week, weekly rest day and raises minimum age of child-workers from 9 to 12 years. **29** — Gandhiji, Sardar Patel and Tyabji meet at Bardoli to formulate plan of mass Civil Disobedience. **February 4** — Gandhiji intimates Viceroy and Govt. of India about mass civil disobedience movement at Bardoli under his leadership. **5** — A mob of more than 300 non-co-operators attacks Chauri Chaura police station and kills 22 policemen. Govt. bans all Congress organisations. **10** — G. Ramachandra Rao of Cocanada refuses to take oath in court and gets S.I. for one month. **12** — Gandhiji suspends mass civil disobedience as violence creeps in. He undergoes fast for 5 days to do penance for Chauri Chaura and Bareilly tragedies. **March 9** — Gandhiji is arrested; Lala Lajpat Rai is sentenced to one-year R.I.; Montague resigns as Secretary of State for India. **17** — Prince of Wales ends tour and embarks for Far East. **April 16** — Rabindranath Tagore lays foundation for University at Shantiniketan. **May 25** — Mrs. Kasturba Gandhi presides over Gujarat political conference at Anand. **July 25** — Members of Civil Disobedience committee reach Madras; Pt. Nehru addresses public meeting. **December 26-31** — 37th Session of Indian National Congress meets at Gaya under presidentship of C. R. Das.

1923

January 1 — Deshbandhu Das and Motilal Nehru form Swarajya Party. **February 9** — Hindu-Muslim riots break out in Ahmedabad. **May 7** — Hindu-Muslim riots break out in Amritsar. **June 18** — Police arrests Jamnalal Bajaj in Nagpur. **July 4** — Jamnalal Bajaj is sentenced to 18 months' R.I. **September 25** — Congress meets at Delhi and adopts resolution to propose candidates for the Leg. Assembly and Provinical Councils in order to obstruct legislation. **October 14** — Swarajya Party issues its manifesto on "Wrecking the Constitution from within the Reformed Councils." **23** — Deshbandhu Das publishes a daily paper *Forward*. **25** — Police arrests Dhanna Singh with a live bomb who explodes it and kills himself, five policemen and an Englishman. **December 20** — Hindu-Muslim riots break out at Lahore. **28** — January 1, 1924 — 38th Congress session meets at Cocanada under presidentship of Maulana Mohammed.

1924

January 12 — Gandhiji undergoes operation at Sassoon Hospital, Poona, for appendicitis. **March 16** — Bhupendra Nath Basu passes away. **April 4** — Gandhiji takes over Editorship of *Young India* and *Navjivan* papers. **12** — Criminal Procedure Code Amendment Act removes racial dintinctions in courts. **May 25** — M. A. Jinnah delivers presidential address at Lahore session of Muslim League. **July 27** — Communal riots break out in Delhi. **August 1** — Pt. Motilal Nehru and M. R. Jayakar are elected as directors of *Bombay Chronicle*. **17** — Gandhiji arrives in Delhi in connection with Hindu-Muslim riots. **September 18** — Gandhiji undergoes 21-day fast for Hindu-Muslim Unity. **October** — Subhash Chandra Bose is arrested and lodged in Alipore jail. **8** — Gandhiji ends fast. **25** — Govt. amends Criminal Law of Bengal Ordinance to deal with revolutionary violence. **December 26-27** — Gandhiji delivers 39th presidential address of Congress session at Belgaum.

1925

January 1 — Lord Reading announces determination to end terrorism of criminal organisations in Bengal. **February 28** — Fifty-four terrorists are convicted in Lahore Conspiracy case. **March 7** — Gandhiji arrives in Madras *en route* to Vaikom. **May 1** — Gandhiji addresses meeting in Bombay and explains programmes regarding Hindu-Muslim Unity, removal of untouchability and use of spinning wheel. **2** — In a Faridpur meeting C. R. Das offers co-operation to Govt. and asks for Dominion Status for India. **June 16** — Chittaranjan Das dies at Darjeeling. **23** — Mrs. C. R. Das becomes Editor-in-Chief of *Forward* of Calcutta. **July 28** — Pt. Motilal Nehru accepts seat on Steering Committee. **August 6** — Sri Surendranath Banerjee passes away. **25** — Pt. Motilal Nehru is elected president of Lower House. He is first Indian to hold this position. **October 29** — Lord Irwin is appointed to succeed Earl Reading as Viceroy and Governor-General of India. **November 25** — A deputation leaves for South Africa to enquire into resident Indians' condition there. **December 26-28** — Sarojini Naidu delivers 40th presidential address of Indian National Congress at Kanpur.

1926

January 19 — Dwijendranath Tagore passes away at Shantiniketan. **February 7** — Elkins, A.S.P. in Madan Sub Divn. of Peshawar, is shot dead by a tribesman. **9** — Viceroy announces creation of Royal Indian Navy and reconstruction of Indian

Mercantile Marine. **22** — T. Rangachariar and Pt. Madan Mohan resign from National Party. **March 25** — Trade Union Act is passed. **April 12** — Erle Handiside, Commandant of Frontier Constabulary, is murdered. **13** — Hindu-Muslim riots break out in Calcutta. **June 14** — Communal riots take place at Rawalpindi. **July** — Communal riots in Calcutta. **15** — Hindu-Muslim riots break out again in Calcutta. **17** — Viceroy appeals to communal leaders to maintain peace. **August 7** — Defying Bengal Government's orders Pt. Madan Mohan Malaviya enters Calcutta. **September 19** — Gandhiji participates in a garden party given by South African Delegation, Bombay. **November** — M. A. Jinnah returns unopposed to Assembly. **December 26-28** — 41st session of Indian National Congress meets at Gauhati. S. Srinivasa Iyengar delivers presidential address.

1927

January 5 — Samuel Hoare, Secretary of State for Air, inaugurates Egypt to India Air service. **February 1** — Rai Sahib Harbilas Sarda introduces a Bill prohibiting Hindu child marriage below 12 for girls and 15 for boys. **16** — First railway, connecting India and Nepal, is inaugurated by Maharaja of Nepal. **March 14**—Abdul Rashid is sentenced to death for murdering Swami Shradhanand. **20** — Muslim leaders meet at Delhi under presidentship of M. A. Jinnah and discuss Hindu-Muslim unity. **May 7** — Communal riots in Lahore. **19** — Nagpur Satyagrahis are arrested. **June 4** — Awami, leader of Nagpur Satyagraha movement, is sentenced to 4 years R.I. **July 23** — First Commercial Broadcasting station is inaugurated by Viceroy in Bombay. **August 29** — Viceroy opens Calcutta Broadcasting station. **September 4** — Communal riots kill 19 and injure 123 in Nagpur. **October 11** — Prof. Indra, S/o Swami Shradhanand, is arrested. **November 2** — Jawaharlal Nehru visits Moscow during tenth anniversary celebrations of Russian Revolution. **December 1** — Dr. Annie Besant inaugurates Boycott Committee. **17** — Accused Ashfaquallah, Rajendra Lahiri and Ram Parshad Bismil of Kakori Conspiracy case are hanged. **26** — M. A. Ansari delivers 42nd presidential address of Congress session in Madras. **29** — Hakim Ajmal Khan passes away. **30** — Hindustan Seva Dal Conference meets at Calcutta under presidentship of Subhash Chandra Bose. **30-31** — All India Muslim League holds its session at Calcutta.

1928

January 15 — All Party Boycott Conference held at Banaras under presidentship of Dr. Ansari, decides to boycott statutory commission and observe *Hartal* throughout India on 3rd February. **30** — Subhash Chandra Bose is awarded Rs. 1,000 damage in Statesman libel case. **February 4** — Simon Commission arrives in India. **12** — Vallabhbhai Patel leads Bardoli satyagraha with Gandhiji's blessings. **19**—Maharaja of Nabha is deprived of title and allowances on charge of disloyalty to Government. **22** — Lord Irwin, Viceroy, declares Govt.'s determination to hold Simon Commission's enquiry. **March 1** — Campaign for boycott of British goods starts in Calcutta. **5** — East Indian Railway employees strike work for higher wages. **April 23** — Maganlal Gandhi, a freedom fighter, dies in Patna. **May 5** — Subhash Chandra Bose presides over Sixth Maharashtra Provincial Conference. **6** — Prof. Indra is released from jail. **28** — Jawaharlal Nehru presides over Kerala Provincial Conference at Payyanur. **31** — Simon Commission sails back. **June 24** — Non-official enquiry into Bardoli revenue settlement commences. **August 10** — Worli Socialist Congress supports India's claims for self-government. **September 13** — Subhash Chandra Bose acts as an arbitrator of Jamshedpur strike. **October 11** — Simon Commission arrives again in India. **30** — Simon Commission arrives in Lahore; Police assaults Lala Lajpat Rai and other leaders during protest meetings. **November 5** — Bardoli enquiry commences. **17** — Lala Lajpat Rai passes away as a result of police beatings on October 30. **29** — Lala Lajpat Rai day is observed throughout India and public meetings are held. **30** — Jawaharlal Nehru and students are beaten at Lucknow for black flag demonstrations against Simon Commission. **December 17** — J. P. Saunders, Asst. Supdt. of Police, is shot dead by a youth at Lahore. **22** — Nehru Committee report regarding communal representation in Legislative Assembly is out. Motilal Nehru delivers 43rd Presidential address to Indian National Congress at Calcutta.

1929

January 10 — Dr. Annie Besant bemoans Gandhiji's Non-Cooperation and Civil Disobedience programmes in an article in *New India*. **28** — Lord Irwin, Viceroy, inaugurated Legislative Assembly and pledges Br. Govt. will do everything to help India attain full national political structure. **29** — Pt. Motilal Nehru, commenting on Viceroy's speech, says door of negotiation is not closed. **February 9** — Subhash Chandra Bose addresses a youth conference in Patna and inspires youth to build a new society and nation. **18** — Black Flag demonstration greets Simon Commission in Madras; Delhi Congress Working Cttee. decides to boycott foreign cloth and picket shops. **March 1** — Rabindranath Tagore sails for Canada on invitation of National Council of Education of Canada. **8** — Gandhiji arrives in Rangoon during his Burma tour. **30** — Weekly air mail service between England and India is inaugurated. **April 8** — Bhagat Singh and Batukeshwar Dutt are arrested for throwing bomb in Assembly. **9** — National Week in memoriam of Jallianwala Bagh is observed with hoisting National Flag, meetings and processions. **14** — Simon Commission leaves for England. **June 12** — Bhagat Singh and his companion are sentenced to transportation for life. **July 5** — Gokaran Nath Misra passes away. **August 4** — Khwaja Hassan Nizami informs Dr. M. A. Ansari, that political salvation of Indian Muslims lies in their joining Indian National Congress. **9** — Gandhiji meets Jinnah and discusses communal question. **11** — Smt. Sarojini Naidu arranges a private meeting of Gandhiji with Jinnah and Ali Brothers in Bombay to amend the Nehru report and make it agreeable to all sections of Muslims. **September 14** — Jatindra Nath Das, aged 23, passes away after 64 days' hunger strike in Lahore prison. **23** — Legislative Assembly passes Child Marriage Bill prohibiting marriages of boys under 18 and girls under 14. **30** — Shivram Hari Rajguru is arrested in Poona with revolver and 13 rounds of ammunition. **November 17**— First death anniversary of Lala Lajpat Rai is observed in Lahore. **30** — Pt. Jawaharlal Nehru delivers presidential address of All India Trade Union Congress at Nagpur. **December 23** — Revolutionaries try to kill Lord Irwin, Viceroy, by blowing off train with time bomb. Viceroy receives Gandhiji, Pt. Motilal Nehru, Sir Tej Bahadur Sapru, M. A. Jinnah etc. to discuss Govt. proposals. **29** — Jawaharlal Nehru delivers 44th presidential address of Congress session at Lahore.

1930

January 5 — Earl Russell, Under Secretary of State for India, declares India will not be granted Dominion Status in near future. **February 24** — Bombay Government thank Gandhiji for getting millowners' dispute settled in Ahmedabad. **March 6** — Gandhiji proceeds to Dandi to commence Salt Satyagraha. **7** — Sardar Vallabhbhai Patel is arrested in Borsad taluka while addressing public meeting. **8** — Gandhiji addresses public meeting at Ahmedabad. **12** — Gandhiji starts Civil Disobedience with a batch of 79 satyagrahis at 6.30 in the morning. **April 1** — Child Marriage Act comes into effect. **2** — Pt. Madan Mohan Malaviya tenders resignation of Assembly seat. **4** — Riots erupt among railway strikers in Bombay. **6** — Gandhiji breaks Salt Law with 79 others by preparing salt at Dandi. **7** — Ramdas Gandhi and several other salt satyagrahis throughout India are arrested and convicted. **9** — Communal riots erupt in Nasik and kill 100 people. **11** — Pt. Motilal Nehru renames Anand Bhavan as Swaraj Bhavan and dedicates it to public. Communal riots break out in Bombay and Calcutta. **13** — Pt. Malaviya campaigns for boycott of foreign clothes in Punjab. **17** — Pt. Motilal Nehru takes charge of AICC office. **May 4** — Gandhiji is arrested and taken to Yeravda jail. **6** — *Hartal* is observed all over India in connection with arrest of Gandhiji. **15-17** — Riots take place in Bengal. **16** — Kamaladevi Chattopadhyaya is sentenced to six months S.I. **23** — Mrs. Sarojini Naidu and Manilal Gandhi sentenced to 9 months and 1 year jail for revolutionary activities. **30** — Governor-General issues ordinances to counteract picketing non-payment of taxes and tampering with loyalty of Govt. servants. **June 3** — Muslims in Bombay take out procession in sympathy with Congress under leadership of S. A. Brelvi, Editor, *Bombay Chronicle.* **10** — Rajendra Prasad, Prof. Bari, Baldev Sahay and others injured by lathi charge on procession at Patna. **18** — Bomb explosions at Lahore, Amritsar, Lyallpur, Gujranwala, Sheikhpura and Rawalpindi. **July 1** — Motilal Nehru and Dr. Syed Mohmed sentenced to 6 months S.I. for being members of Cong. Working Cttee. *Boycott Week.* Congressmen make house to house visits and get pledges from citizens to boycott foreign goods. **5** — Maulana Shaukat Ali presides over Exec. Cttee. meeting of All Parties Muslim Conference at Simla. **10** — M. S. Aney is arrested and convicted to 6 months S.I. for breaking Forest laws. **17** — Police opens fire on volunteers picketing toddy shops and kill 3 and injure many at Madurai. Viceroy allows Sir Tej Bahadur Sapru and M. R. Jayakar to see Gandhiji, Jawaharlal Nehru and others in jail. **23** — Sir Sapru and Jayakar interview Gandhiji in Yeravda jail. **28** — Sir Sapru and Jayakar meet Nehru at Nainital Jail. **August 2** — Sardar Vallabhbhai Patel, Pt. Madan Mohan Malaviya, Jairamdas Daulatram and Dr. Hardikar, arrested in Bombay. **7** — Maulana Abul Kalam Azad acts as president of Congress in place of Vallabhbhai Patel. **8** — The Depressed Classes Conference meets at Nagpur under Dr. B. R. Ambedkar. **14** — Martial law proclaimed in N.W.F. Province. **16** — Martial law proclaimed in Peshawar. **21** — Maulana Abul Kalam Azad, acting Cong. President, arrested and taken to Meerut jail. **22** — Grosby, the additional Suptd. of Police of Dacca, shot dead. **25** — Bomb attempt on Sir Charles Tagart, Commr. of Police, Calcutta. **26** — Dr. Ansari officiates as President of All India Congress Cttee. **28** — SICC declared unlawful; Vallabhbhai Patel, Pt. Malaviya and Dr. Ansari are arrested. **29** — Bengal Inspector-General of Police shot and seriously injured. **31** — Ramachandra Sainik, Director of War Council, arrested at Lahore. G. V. Mavlankar and others arrested at Rampur. **September 2**—Mass arrests of Congressmen in Bombay, Calcutta, Ahmedabad, Surat for picketing foreign cloth shops. **6** — Motilal Nehru released. **15** — R. S. Pandit, son-in-law of Motilal Nehru, sentenced to one year R.I. on charges of sedition. **18** — Special Tribunal sentences Dinesh Chandra to transportation for life in bomb outrage case on Sir Charles Tagart. Sultan Mohammad, member and Ajit Singh, Director, 'War Council' arrested at Jallianwala. **23** — Asaf Ali, third Director of "War Council" arrested at Delhi. **October 7** — In Lahore conspiracy case Bhagat Singh, Rajguru and Sukhdev sentenced to death; Kishorilal, Mahavirsingh, Vijay Kumar Sinha, Shiv Varma, Gaya Prashad and Premnath Tewari to transportation for life. **17** — Smt. Parvati Devi, D/o Lala Lajpat Rai, arrested at Lahore; The police raid Swaraj Bhavan, Allahabad. **24** — Mahadev Desai, Mahatma Gandhi's secretary, released from jail. **November 8** — Political prisoners in Banaras jail resort to hunger strike. **12** — King of England presides over Round Table Conference as King Emperor of India to discuss question of India's independence. **24** — S. A. Brelvi of *Bombay Chronicle* and Sadanand of *Free Press* arrested in Bombay. **December 1** — S. A. Brelvi sentenced to 5 months and a fine of Rs. 250. **2** — Cong. Organisations all over country are declared unlawful. **11** — Sir W. Churchill criticises Congress movement in India. **18** — Jawaharlal Nehru fasts in protest against flogging of prisoners. **21** — Forty ladies in Delhi jail resort to fast. **23** — Governor of Punjab, during convocation ceremony of Punjab University, shot and wounded. Two students arrested. **26** — Bomb explosion injures three at Delhi Central Rly. Stn. **28** — S. Satyamurti, President of Tamilnad Council of Action, arrested for defying police ban on Flag Salutation ceremony.

1931

January 1 — Smt. Kamala Nehru arrested under Criminal Law Amendment Act. **4** — Maulana Mohammad Ali passes away in London. **6** — Vallabhbhai Patel and Ramdas Gandhi convicted under Criminal Law Amendment Act. **10** — S. Satyamurti and eleven others, including a woman, convicted. **18** — Subhash Chandra Bose arrested at Berhampur. **22** — Jamnadas Dwarkadas, a congress worker of Bombay, arrested. **25** — Lord Irwin, Viceroy, cancels notification under Criminal Law Amendment Act and releases Gandhiji and other members of Working Cttee. from jail. **26** — Gandhiji released from prison along with Jawaharlal Nehru, Mrs. Sarojini Naidu and 25 others. **February 6** — Pt. Motilal Nehru expires at 6.40 A.M. at Lucknow. **17** — Gandhiji meets Lord Irwin. **19** — Gandhiji meets Lord Irwin again on invitation. **March 1** — Gandhiji negotiates truce with Viceroy. **4** — Civil disobedience movement to be discontinued, amnesty to persons convicted of non-violent offences in connection with civil disobedience, withdrawal of ordinances, restoration of confiscated or attached properties are granted by Govt. in truce agreements. **23** — Viceroy rejects Bhagat Singh's mercy petition. Bhagat Singh executed at midnight. **27** — In Navjivan Conference at Karachi, Subash Chandra Bose, in presidential address questions usefulness of truce agreement between Gandhiji and Viceroy in view of execution of Bhagat Singh. **29** — 45th Session of Indian National Congress meets at Karachi under presidentship of Vallabhbhai Patel. **31** — Young revolutionaries greet Gandhiji with black flags because of Bhagat Singh's execution. **April 17** — Lord Willingdon, new Viceroy, arrives in India. **18** — Gandhiji bids farewell to Lord Irwin. **23** — Jawaharlal Nehru given rousing reception on landing at Colombo. **May 7** — In encounter with police at Lahore Jagdish Chandra, a revolutionary, is killed. **June 27** — B. R. Gorlic, District Session Judge of 24 Parganas, shot dead by a Bengali youth. Police kill assailant. **July 22** — A youth shoots Bombay Governor Sir Ernest Hoston. He escapes as bullet strikes metal button of pocket book. **August 1** — Congress Wkg. Cttee. approves Gandhiji's National Flag with slight modification. **27** — Gandhiji and Willingdon sign fresh agreement reserving rights of Congress to adopt defensive direct action. **29** — Gandhiji sails for London to attend Round Table Conference. **September 11** — Subhash Chandra Bose addresses Tamilnad Navjivan Conference. **12** — Gandhiji arrives in London. **15** Gandhiji addresses Federal Structure Cttee. **30** — Lord Burnham declares Gandhiji as greatest enemy of British. **October 13** — Gandhiji addresses National Labour Club in London. **November 3** — Subhash Chandra Bose asks revolutionary elements in Bengal to rally round Congress banner and follow its programme. **5** — Gandhiji meets King George in London. **10** — Gandhiji addresses mass meeting at Friends' Meeting House in London. **December 5** — Gandhiji leaves for India. **25** — Abdul Gaffar Khan arrested. **28** — Gandhiji lands in Bombay. **29** — Vicreoy refuses Gandhiji's request for talks.

1932

January 2—Subhash Chandra Bose arrested in Bombay. **4**—Gandhiji arrested in Bombay; Govt. declares Congress Working Cttee. unlawful. **5**—Dr. Rajendra Prasad, Congress President, arrested; Dr. Ansari becomes Cong. President. **8**—Dr. Ansari arrested. **9**—Rajagopalachari and S. Satyamurty arrested in Madras. **10**—Kasturba Gandhi and others arrested at Bardoli. **13**—The Police takes into custody "Swaraj Bhawan" in Allahabad. **22**—Congress Funds in Bombay banks frozen. **26**—Mass arrests and convictions take place all over the country on Independence Day. **February 6**—Sir Stanley Jackson fired at by a girl student at Convocation in Calcutta. **19**—Morarji Desai resigns as Dy. Collector and becomes Secretary of Gujarat Cong. Cttee. **March 15**—Smt. Kasturba Gandhi arrested and sentenced to 6 months R.I. by Bardoli magistrate. **April 4**—Maulana Shaukat Ali complains against Congress picketing in front of Muslim firms in Bombay. **22**—Smt. Sarojini Naidu sentenced to one year S.I. **24**—46th session of Indian National Congress meets at Delhi under presidentship of Amrit Ranchhoddas Seth. **30**—Robert Douglas, Dist. Magistrate of Midnapore, shot dead by a Bengali youth. **May 16**—Riots break out in Bombay in which 100 are dead and 1,000 injured. **June 17**—Viceroy talks to Tej Bahadur Sapru and M. R. Jayakar. **July 7**—J. B. Kripalani arrested in Banaras. **8**—Tej Bahadur Sapru, M. R. Jayakar and N. M. Joshi resign membership of Consultative Cttee. of Round Table Conference. **August 4**—Two persons are arrested at Dinapur for attempting to hoist

National Flag on Sub-jail. **16**—Prime Minister's award on communal representation in Indian Provincial Council announced. **21**—Punjab Hindu Conference at Lahore protests Communal award. **28**—Dr. Saifuddin Kitchlew arrested and sentenced to 2 years' R.I. for violating ban on entry into Lahore and Ambala. **September 12**—Gandhiji resolves to undergo fast unto death against Govt.'s decision to give separate electorates for depressed classes. **18**—12 temples thrown open to depressed classes in Allahabad. **19**—Meetings held all over country against communal award. **20**—Gandhiji starts fast in Yeravda jail. **24**—Bomb explosion kills several Europeans in European Club at Chittagong. **26**—Gandhiji breaks fast. **October 5**—Pt. Madanmohan Malaviya and Shaukat Ali discuss inter-communal settlement. **31**—Viceroy refuses permission to Maulana Shaukat Ali for interviewing Gandhiji in jail. **November 17**—Purushottam Das Tandon arrested in Allahabad. **December 14**—Plenary session of Unity Conference meets in Allahabad under presidentship of C. Vijayaraghavachariar.

1933

January 1—Gandhiji announces plan to undertake fast in sympathy with Kelappan in Kerala for getting temples opened for Harijans. **4**—Civil Disobedience Day celebrated all over country, lathi charges and mass arrests take place. **6**—Rajendra Prasad, Acting Cong. President, arrested at Bankipore. **7**—Pyarelal, Gandhiji's secretary, arrested from Mani Bhavan at Bombay. **14**—Kelappan meets Gandhiji at Yeravda jail and discusses temple entry issues. **18**—Rajendra Prasad is sentenced to 15 months R.I. **26**—Many are arrested and sent to jail all over country for celebrating Independence Day. **February 3**—Govt. of India decides to drop 'Delhi Conspiracy' case. **23**—Subhash Chandra Bose sails for Europe from Bombay. **March 1**—Govt. bans Calcutta session of Congress. **31**—Madan Mohan Malaviya, his son and grandson are arrested at Asansol station on their way to Calcutta session. **April 1**—Mrs. Sen Gupta delivers 47th presidential address of Calcutta Congress in place of Madan Mohan Malaviya. Many are lathi charged and arrested since session is banned by Govt. **23**—Dr. B. R. Ambedkar meets Gandhiji. **May 8**—Gandhiji is released from jail. **13**—M. A. Jinnah addresses Indian Students Union and urges need for united front in India. **28**—Andamans prisoners go on hunger strike. **July 17**—Viceroy refuses to meet Gandhiji. **31**—Gandhiji and his 33 followers rearrested and imprisoned in Sabarmati prison. **August 18**—C. F. Andrews meets Gandhiji in prison. **23**—Gandhiji is released unconditionally. **30**—Jawaharlal Nehru is released from jail to enable him to see his ailing mother. **September 10** — Jawaharlal Nehru meets Gandhiji. **12**—All India Library conference meets in Calcutta. **20**—Dr. Annie Besant passes away. **November 7**—Gandhiji starts Harijan tour from his Satyagraha Ashram, Wardha. **10**—Vithalbhai Patel passes away in Bombay.

1934

January 15—Earthquake in North India. **16**—Gandhiji leaves Calcutta for his South Indian tour. **February 5**—Rangaswami Iyengar, Editor of *Hindu* passes away. **28**—Sikh National Conference condemns Premier's Communal Award. **April 7**—Hindu Mahasabha Working Committee declares Communal Award constitutes grave injustice to Hindu community. **18**—Rabindranath Tagore appeals to Govt. to release all political prisoners. **24**—Sir C. Sankaran Nair passes away. **May 8** —Sir John Anderson, Bengal governor, escapes revolver shot. **31**—Sir Samuel Hoare, Secretary of State for India, condemns Winston Churchill's and Lord Lloyd's reactionary policy against India. **June 12-13**—Cong. Working Cttee, passes resolution on "White Paper and Communal Award." **25**—Gandhiji escapes bomb outrage on his car at Poona. **July 28**—Pt. Madan Mohan Malaviya and M. S. Aney form a new party styled "National Party". **August 29-30**—Provincial Kisan Conference meets at Gaya under presidentship of Purushottam Das Tandon. **October 1**—Dr. Rajendra Prasad accepts Presidentship of Congress. **26-28**—48th Session of India National Congress meets at Bombay. Dr. Rajendra Prasad delivers presidential address. **November**—Subhash Chandra Bose publishes his own account of Indian Nationalism *The Indian Struggle*. **December 3**—Subhash Chandra Bose goes to Calcutta to meet his dying father Jankinath Bose. **7**—Khan Abdul Ghaffar Khan, Frontier Congress leader, is arrested at Wardha. **15**—Khan Abdul Ghaffar Khan is sentenced to 2 years R.I.

1935

January 2—M. V. Abhyankar, Central Provinces Congress leader passes away in Bombay. **15**—Bhulabhai Desai is elected leader of Congress in Assembly. **20**—M. A. Jinnah is elected leader of Independent party in Assembly. **26**—M. S. Aney becomes leader of Nationalist Party in Assembly. **31**—Calcutta citizens protest against continued detention of Sarat Chandra Bose and demand his unconditional release. **May 6**—India celebrates H.M. King's silver jubilee. **23**—Mrs. Kamala Nehru leaves for Europe. **31**—Gandhiji meets Abdul Ghaffar Khan in Sabarmati jail. Quetta and surrounding districts are affected by earthquake shocks of severe intensity. Many die, famine prevails. **June 2**—Viceroy and Cong. President appeal for funds for relief of sufferers in Quetta earthquake. **July 8**—Sikh-Muslim tension—Curfew order in Lahore. **26**—Sarat Chandra Bose is released from prison unconditionally. **September 4**—Jawaharlal Nehru leaves for Europe after his release from jail to see his ailing wife. **22**—Indian Journalists Council condemns Criminal Law Amendment Bill at its Calcutta meeting. **23**—Conference of Harijans at Ahmedabad condemns Nasik decisions asking Harijans to change their religion. **November 28**—Golden Jubilee of Indian National Congress is celebrated all over India.

1936

January 1—Depressed classes start mass satyagraha in United Province (Uttar Pradesh). **February 13**—Sir Dinshaw Wacha, Old Congress president, expires in Bombay. **March 12**—Jawaharlal Nehru returns to India with ashes of his late wife Smt. Kamala Nehru. **16**—Nehru meets Gandhiji at Delhi to discuss political situation. **April 12**—All India Muslim League passes resolution opposing Govt. of India Act, 1935. **12-14**—Jawaharlal Nehru delivers presidential address of 49th Session of Indian National Congress at Lucknow. **May 10**—Dr. M. A. Ansari (ex-president of Congress) expires in train while travelling from Dehra Dun to Delhi. **August 16**—Madam Cama passes away in Bombay. **October 25**—Gandhiji performs opening ceremony of Mother India temple at Banaras. **December 23**—All India Socialist Congress meets at Faizpur under presidentship of Jayaprakash Narayan. **27-28**—Indian National Congress meets at Faizpur. Nehru delivers 50th presidential address.

1937

January 1—M. A. Jinnah makes a strong plea for Hindu-Muslim unity in Nagpur meeting. **3**—M. A. Jinnah asks Congress not to interfere in Muslim Affairs. **February**—Rabindranath Tagore delivers Convocation address of Calcutta University in Bengali (Normally this privilege had been given to Viceroys and Governors of Bengal). **March 15**—AICC decides to accept office where Congress is in majority. **17**—Subhash Chandra Bose is released from prison in Calcutta. **21**—All India Political Prisoners' Relief Conference meets at New Delhi under presidentship of Sarat Chandra Bose. **28**—Congress leaders decline to form ministries without assurance of non-interference from Governors. **April 1**—India observes *hartal* as a protest against New Constitution. **6**—Rajendra Prasad urges Muslims to join Congress. **27**—Jawaharlal Nehru and M. A. Jinnah issue counter statements regarding political conditions in India. **June 2**—Hindu-Muslim riots take place in Bombay. About 2,000 are arrested. **July 9**—Dr. Khare forms first Cong. Ministry in Central Provinces. **15**—C. Rajagopalachari forms Cong. Ministry in Madras. **20**—Congress Ministries are formed in several provinces. **30**—Andamans political prisoners go on hunger strike on rejection of their demands by Govt. **August 4**—Viceroy meets Gandhiji at New Delhi. **6**—Bihar Govt. orders repatriation of Bihar prisoners from Andamans. **27**—Congress members in Bengal Assembly stage walk out during debate on Andaman prisoners. **28**—Gandhiji urges prohibition in Indian States and provinces where Congress has majority. **29**—Gandhiji urges Andamans prisoners to give up fast. **September 5**—Dr. Khan Sahib forms Frontier Ministry. **17**—Bombay Govt. returns confiscated properties in connection with Civil Disobedience Movement. **30**—Jawaharlal Nehru seeks boycott of Japanese goods. **October 26**—Resolution demanding retention of *Bande Mataram* as *National Anthem* of India is passed at Poona meeting. **31**—Jawaharlal Nehru, Subhash Chandra Bose and other Congress leaders deliver speeches at labour rally and urge people to unite and join Congress. **November 22**—Sir Jagdish Chandra Bose passes away. **December 5**—Bengal Government releases all women detenus unconditionally. **19**—Jayaprakash Narayan condemns Bihar Congress for putting ban on Kisan Sabha, **28**—All India Educational Conference discusses Gandhiji's Wardha Education Scheme in Calcutta.

1938

January 9—China Day is observed all over India in response to an appeal by Congress President. **10**—Smt. Motilal Nehru passes away at Allahabad. **17**—Subhash Chandra Bose is elected president of Indian National Congress, Jayaprakash Narayan feels Gandhiji's ideas are old and need to be replaced by new ones. **25**—Subhash Chandra Bose and M. N. Roy discuss political situation in India. **February 5**—Gandhiji and Nehru write to M. A. Jinnah for definite statement on Muslim League's demands. **15**—Bihar and U.P. Ministries resign on issue of release of political prisoners. **19-21**—Subhash Chandra Bose delivers fifty-first presidential address of Indian National Congress at Haripura. **22**—Lord Linlithgow, Viceroy, makes statement on Constitutional crisis in U.P. and Bihar. **24**—Govind Vallabh Pant meets U.P. Governor regarding release of political prisoners. **March 2**—Maharaja of Indore allows temple entry to Harijans in his State. **April 5**—Sardar Vallabhbhai Patel launches prohibition campaign in Saran Dist. **6**—Jawaharlal Nehru writes to M. A. Jinnah on Congress policy towards Muslims and Muslim League. **8**—Gandhiji meets political prisoners in Calcutta presidency jail in connection with their release. **28**—Gandhiji meets M. A. Jinnah at Bombay to discuss communal question. **May 1**—Congress members of Orissa Assembly pass resolution asking ministry to resign in protest against appointment of J. R. Dain as Acting Governor. **11-13**—Subhash Chandra Bose and M. A. Jinnah meet and discuss Hindu-Muslim question in Bombay. **20**—Gandhiji meets M. A. Jinnah in Bombay. **June 2**—Nehru sails for Europe. **11**—Subhash Chandra Bose, in meeting at Chittagong, appeals to youth to give up violence and strengthen Congress in work of attainment of Swaraj. **16**—C. Rajagopalachari opens All India Radio Station at Madras. **23**—Subhash Chandra Bose resigns leadership of Calcutta Congress Municipal party. **July 1**—Lord Halifax, Foreign Secretary for India, talks to Jawaharlal Nehru in London. **4**—Subhash Chandra Bose meets Khwaja Sir Nazimuddin, Home Minister of Bengal, and discuss question of Bengal detenus and political prisoners. **25**—Gandhiji writes to M. A. Jinnah on communal problems. Subhash Chandra Bose also writes to Jinnah. **26**—Congress Working Cttee. takes disciplinary action against Dr. N. B. Khare, C. P. Premier. **27**—R. S. Shukla is elected leader of C.P. Congress Assembly Party. **28**—R. S. Shukla forms C.P. Ministry. **August 16**—Subhash Chandra Bose releases for publication correspondence between him and Jinnah regarding Muslim settlement. **September 25**—Congress Working Cttee. in consultation with Gandhiji decides to take whatever action necessary in event of outbreak of hostilities. **October 2**—Congress Wkg. Cttee. expels Dr. N. B. Khare from Congress. **24**—Congress President issues appeal for funds for relief work in flood affected areas of Bengal. **November 9**—Gandhiji concludes his N.W.F. Province tour and returns to Wardha. **17**—Jawaharlal Nehru returns to India. **25**—In public meeting at Jullundur Subhash Chandra Bose declares India will resort to Satyagraha if Federal Constitution is forced. **December 3**—In an article, Gandhiji appeals to Princes to co-operate with Congress. **26-28**—26th Session of All India Muslim League meets at Patna under presidentship of M. A. Jinnah. **29**—All India Muslim Students' Conference meet at Patna under presidentship of Raja of Mahmudabad.

1939

January 20—Maulana Abul Kalam Azad withdraws his claim from Presidentship of Tripura Session of Congress leaving fields for Subhash Chandra Bose and Dr. Pattabhi Sitaramayya. **25**—Sardar Vallabhbhai Patel, after informal consultation with Gandhiji and Nehru at Bardoli, announces it is unnecessary to re-elect Subhash Chandra Bose for presidentship of Congress. Dr. Pattabhi Sitaramayya decides to contest Presidential election. **27**—Jayaprakash Narayan and Swami Sahajanand Saraswati issue a joint statement on presidential election supporting Subhash Chandra Bose. **28**—Gandhiji in an article in *Harijan* draws attention to increasing indiscipline of Congressmen. He also deplores corruption among them. **29**—Subhash Chandra Bose is elected as Congress President. **31**—Gandhiji says that Subhash Chandra Bose has achieved a decisive victory over his opponent Dr. Pattabhi Sitaramayya. He adds defeat of Pattabhi Sitaramayya is really his (Gandhiji's) since he had supported his candidature. **February 1**—Seth Jamnalal Bajaj, leader of Prajamandal reaches Jaipur to defy the ban on his entry into State. **2**—Subhash Chandra Bose discusses with Jawaharlal Nehru at Shantiniketan implications of Congress President election. **3**—Kasturba and Maniben Patel are arrested at Rajkot on their entering State to offer Satyagraha. **5**—Seth Jamnalal Bajaj is arrested at Likri Bansi Railway Stn. **7**—Seth Jamnalal Bajaj is released at frontier of Bharatpur State. **13**—Subhash Chandra Bose meets Gandhiji at Wardha. **14**—Jawaharlal Nehru in his presidential address to All India States People's Conference at Ludhiana says Congress will intervene if States check progress of people. **21**—Congress leaders meet Gandhiji at Wardha. **22**—Thirteen out of 15 Congress members of Working Committee resign. **26**—Subhash Chandra Bose accepts resignation of 13 Working Committee members. **27**—Gandhiji arrives at Rajkot on peace mission. **March 2**—Subhash Chandra Bose replies to charge against him, made by Working Cttee. members who resigned, and others. **2**—Gandhiji writes to Thakore of Rajkot intimating his plan of fast unto death from next day. **3**—Gandhiji starts fast at noon. **7**—Gandhiji breaks fast as settlement reached in Rajkot crisis by intervention of Viceroy. **8**—Subhash Chandra Bose presides over All India Congress Working Committee meeting at Tripura. **9**—AICC expresses confidence in old Wkg. Cttee. members and urges Subhash Chandra Bose to elect new members as per Gandhiji's wishes. **10**—Subhash Chandra Bose delivers 52nd presidential address of Indian National Congress at Vishnu Nagar, Tripura. **15**—Gandhiji meets Viceroy and continues to stay at Delhi. **23**—On Gandhiji's advice Travancore civil disobedience movement is suspended. **27**—Travancore civil disobedience prisoners are released. **April 2**—Sir Maurice Gwyer, Chief Justice of India, gives his verdict on Rajkot dispute. **9-10**—Annual session of All India Kisan Conference meets under presidentship of Acharya Narendra Dev at Gaya. **18**—Dr. Rabindranath Tagore and Sir P. C. Ray send telegrams to Gandhiji and Subhash Chandra Bose requesting them to meet and discuss existing problems of Congress. **24**—Congress meeting under presidentship of Subhash Chandra Bose reiterates Congress policy of non-participation in Imperialist War. **27**—Gandhiji and Subhash Chandra Bose meet at Sodepur, near Calcutta and discuss future programmes of Congress. **29**—A.I.C.C. meets at Wellingdon Square, Calcutta. Subhash Chandra Bose resigns presidentship of Indian National Congress. Nehru requests Subhash to withdraw his resignation. **30**—Dr. Rajendra Prasad is elected President of Indian National Congress. **May 1**—New Working Cttee. members of Congress are elected. **3**—Subhash Chandra Bose decides to form Forward Bloc within Congress. **6**—U. N. Dhebar writes to Gandhiji on Rajkot concessions which Darbar Virawala is prepared to grant. **8**—Subhash Chandra Bose explains future programmes of Forward Bloc. **21**—Jawaharlal Nehru deprecates, in speech at Kanpur, formation of Forward Bloc by Subhash Chandra Bose. **24**—Ram Manohar Lohia is arrested at Calcutta. **25**—Gandhiji meets Thakore Sahib of Rajkot. **June 8**—Jayaprakash Narayan, Congress Socialist leader in Patna, criticises aims of 'Forward Bloc'. **18**—Subhash Chandra Bose is accorded great welcome in Peshawar. **26**—Congress premiers meet in Bombay during AICC session to discuss communal disharmony. **July 5**—Gandhiji leaves for his frontier tour accompanied by Mahadev Desai. **10**—Madura Meenakshi temple is thrown open to Harijans. **16**—Brihadeswara temple, Tanjore, is thrown open to Harijans. **17**—Subhash Chandra Bose declares in a meeting at Zaveriwada, Ahmedabad, that Swaraj will be achieved in a short time. **18**—Subhash Chandra Bose says ordinary Congressman is terrorised into silence by higher ranks of Congress leadership. **21**—Jawaharlal Nehru advises Indians at a Colombo meeting to cultivate goodwill of Ceylonese. **August 11**—AICC disqualifies Subhash Chandra Bose from presidentship of Bengal Provincial Congress Cttee. and debars him from membership of any elective Congress Cttee. for three years. **12**—Subhash Chandra Bose, in a statement, welcomes decision of AICC. **18**—Bengal Govt. releases political prisoners. **20**—Jawaharlal Nehru leaves for China by plane. **30**—Bengal Provincial Congress passes a resolution expressing confidence in Subhash Chandra Bose. **September 4**—Gandhiji and Viceroy discuss World War. **5**—Gandhiji in a statement says he supports Britain and France against Germany in War. **9**—Gandhiji, Subhash Chandra Bose, M. S. Aney, Acharya Narendra Dev and Jayaprakash Narayan attend Cong. Wkg. Cttee. meeting at Wardha by special invitation. **17-18**—Cong. Wkg. Cttee. and All India Muslim League pass resolution on war crisis. **26**—Gandhiji meets Viceroy at Simla. **October 4**—Viceroy meets Sardar Vallabhbhai Patel. **5**—Gandhiji and M. A. Jinnah meet Viceroy. **6**—Viceroy invites Subhash Chandra Bose for talks. **18**—Jinnah-Prasad correspondence regarding league's allegation against Congress Govt. is released. **23**—Parliamentary sub-committee instructs Congress Govt. to resign by October 31. **27**—Congress Ministry in Madras resigns. **31**—U.P. Ministry (Congress) tenders resignation. Viceroy decides to invite Congress and Muslim League for a joint discussion. Subhash Chandra Bose criticises some statements made by Gandhiji and Dr. Rajendra Prasad (Cong. Pres.). **November 1**—Gandhiji, Dr. Rajendra Prasad and M. A. Jinnah hold joint conference with Viceroy in Delhi. **4**—Viceroy meet Gandhiji and Rajendra Prasad in morning and M.A. Jinnah in afterrnoon. **5**—M. A. Jinnah in a statement says Musalmans of India depend upon their own inherent strength and will fight to last ditch for rights in spite of British or Congress. **19**—Gandhiji lays foundation stone of Kamla Nehru Memorial Hospital at Allahabad. **19-23**—Three-day session of Congress Working Cttee. is held at Anand Bhavan, Allahabad. It passes a resolution on "War-Crisis". **December 1**—Sir Henry Gridney, President, Anglo-Indian Domiciled European Assn. appeals to Community to offer its services to King Emperor unconditionally at Calcutta meeting. **8**—M. A. Jinnah asks Muslims to observe December 21 as "'Deliverance Day" from Congress regime. **9**—Gandhiji appeals to Jinnah to desist from observing Day of Deliverance and Thanksgiving in view of communal unity talks. **14**—Jawaharlal Nehru says, in a public meeting in Bombay, that communal problem in country is not communal, in the accepted term of sense, but purely political. **22**—The Congress Working Cttee. at its session at Wardha criticises statement of Secretary of State for India regarding final settlement of Indian affairs. B. G. Kher and Mirza Ismail open All India Swadeshi exhibition in Madras. **24**—Sikandar Hyat Khan meets Jinnah at Bombay. **26**—Sir Stafford Cripps leaves India for Burma. Sardar Patel denounces Jinnah's appeal to Muslims while addressing a gathering in Bombay. **27**—Jawaharlal Nehru inaugurates the fifteenth session of the All India Educational Conference at Lucknow. **27-29**—Dr. R. Paranjpe delivers presidential address at the 21st Session of National Liberal Federation.

1940

January 13—C. Rajagopalachari meets Gandhiji at Sevagram. **15**—Subhash Chandra Bose issues instructions to members of the Forward Bloc on how to observe "Independence Day". **16**—Jawaharlal Nehru issues circular regarding the celebration of 'Independence Day.' **26**—Independence Day is celebrated all over India. **30**—Subhash Chandra Bose criticises Congress High Command in a meeting at Calcutta. **February 1**—Dr. Rajendra Prasad, Cong. President, writes to Sarat Chandra Bose regarding defiance of Bengal Cong. Cttee. **11**—Jawaharlal Nehru inaugurates Maharashtra Congress Conference in Bombay and appeals to youth to discard provincialism. **15**—In Congress presidential elections Maulana Abul Kalam Azad (1841 votes) is elected against M. A. Roy (981 votes). **March 7**—Jayaprakash Narayan appeals to leftists to maintain unity in the Congress. **11**—Maharaja Jam Sahib of Jamnagar, Chancellor of Chamber of Princes, makes a statement on the negotiations for revision of Draft Instrument of Accession. **17-19**—Maulana Abul Kalam Azad delivers 53rd presidential address of Indian National Congress at Ramgarh. **22-24**—M. A. Jinnah in his presidential address at Lahore Session of All India Muslim League demands for a separate Homeland for Muslims, and passes resolution seeking creation of Pakistan. **April 5**—C. F. Andrews passes away in a nursing home at Calcutta. **May 13**—L. S. Amery is appointed Secretary of State for India. **June 1**—Jawaharlal Nehru, at a Srinagar meeting, deprecates idea of dividing India into Hindu and Muslim States. **10**—Jawaharlal Nehru outlines position of Indian States in free India as visualised by Congress. **17-21**—Working Committee of Congress passes resolution on "War-Crisis". **29**—Viceroy meets Gandhiji at Simla. After talk Gandhiji writes in *Harijan* that he is "both happy and unhappy". **July 1**—Gandhiji appeals to every Briton to accept method of non-violence instead of war with Hitler. **2**—Subhash Chandra Bose is arrested at his Calcutta residence. Sardar Sardul Singh Caveeshar is nominated as president of the All India Forward Bloc. **3-7**—Gandhiji attends the Cong. Working Cttees. meetings in Delhi where resolution demanding complete independence for India is passed. **7**—Congress Working Cttee. deputes Bhulabhai Desai and Asaf Ali to visit Waziristan, and study problems of Wazirs arising out of tribal raids. **21**—At Wkg. Cttee. meeting of Congress at Poona C. Rajagopalachari urges formation of National Govt. at Centre. **August 8**—Viceroy, Lord Linlithgow, makes statement on expansion of Governor's Executive Council and establishment of a War Advisory Council. **14**—Viceroy writes to M. A. Jinnah regarding establishment of "War Advisory Council". **26**—Congress President issues circular to Provincial Congress Cttees. asking them to hold protest meetings against Viceregal move to establish War Advisory Council. **September 2**—Muslim League Working Cttee. welcomes Viceroy's proposal to establish War Advisory Council. **15**—In a meeting of All India Congress Cttee. at Bombay Maulana Abul Kalam Azad announces Gandhiji's agreement to lead Congress. **18**—Congress Working Cttee. meeting at Bombay passes resolution on suspension of Civil Disobedience. **25**—L. S. Amery, Secretary of State for India, hopes for establishing working arrangement in India with Gandhiji. **October 6**—Mahadev Desai, Secretary to Gandhiji, meets Subhash Chandra Bose. **13**—Working Cttee.'s session at Wardha approves Gandhiji's plan for individual Civil Disobedience by a limited number of satyagrahis chosen by him. **17**—Gandhiji selects Vinoba Bhave as his first satyagrahi for individual satyagraha movement. Vinoba Bhave in a meeting at Panam advises audience not to help British in war efforts. Vinoba is arrested. **25**—Govt. of India issues restrictive orders under Defence of India Rules. **31**—Jawaharlal Nehru is arrested at Chhiski (Allahabad) on his return from Wardha after meeting Gandhiji. **November 8**—*News Chronicle,* London, urges immediate release of Jawaharlal Nehru. **13**—Gandhiji prepares list of 1,500 congressmen for individual civil disobedience. **17**—Sardar Vallabhbhai Patel is arrested and taken to Sabarmati jail. **24**—Govind Vallabh Pant is arrested at Haidwani. **25**—Govind Vallabh Pant is sentenced to one year S.I. Maulana Abul Kalam Azad announces a Hindu-Muslim Unity Board at Karachi. **December 1**—Sarojini Naidu and Bhulabhai Desai are arrested in Bombay. **2**—Dr. Prafulla Chandra Ghosh (Wkg. Cttee. Mem.), Kumari Chandra Jaina (Midnapur Dist. Cong. Pres.) are arrested and sentenced to 1 year S.I. under D.I.R. **3**—Bubesu Sambamurti in Madras and K. M. Munshi in Bombay are arrested. **5**—Subhash Chandra Bose is released. **9**—Smt. Vijayalakshmi Pandit, Nityananda Kanungo, Asaf Ali, Dr. & Smt. Subbaroyan are arrested and sentenced each for six months' S.I. **11**—Smt. Sarojini Naidu is released from jail for health reasons. **12**—Subhash Chandra Bose issues statement in connection with disciplinary action taken against Sarat Chandra Bose by Congress executive.

1941

January 3—Maulana Abul Kalam Azad is arrested at Allahabad on his way to Calcutta from Delhi. **8**—Maulana Abul Kalam Azad is charged under DIR having delivered prejudicial speech at Allahabad and sentenced to 18 months S.I. **27**—Subhash Chandra Bose is missing from home in Calcutta. A warrant of arrest is issued by the Addl. Chief Presidency Magistrate, Calcutta. **31**—M. N. Roy appeals to Gandhiji to persuade followers to behave less violently and more truthfully. **February 3**—Addl. Chief Presidency Magistrate, Calcutta, orders arrest of Subhash Chandra Bose and attachment of his properties. **20**—Gandhiji declines Congress participation in Central government reorganisation until Congress demands are conceded. **28**—Gandhiji performs opening Ceremony of Kamala Nehru Memorial Hospital at Allahabad. **March 2**—Subhash Chandra Bose reaches Germany. **13**—Non-parties political conference issues proposals on establishment of "War Advisory Council." **April 22**—L. S. Amery makes statement on proposals of establishing "War Advisory Council." **May 19**—S. Srinivasa Iyengar, *ex*-Pres. of Indian National Congress passes away at Mylapore, Madras. **June 4**—Pt. Madan Mohan Malaviya addresses the Conference of Hindu leaders at Banaras regarding communal situation in India. **July 18**—Gandhiji discusses with Christian leaders minorities question of India. **August 7**—Rabindranath Tagore passes away in his old *Jorasanko* house. **12**—Pt. Madan Mohan Malaviya, in a statement from Banaras, recommends holding of public meeting on August 17 to protest against communal award and separate communal electorates. **September 16**—Bhulabhai Desai is released from prison for reasons of health. **19**—Dr. Satyapal resigns seat in Central Legislature. **26**—Communal riots in Dacca and Bombay. **November 8**—Smt. Vijayalakshmi Pandit inaugurates Patna Dist. Political Conference at Patna and appeals to follow programmes outlined by Gandhiji. **14**—Gandhiji appeals to Govt. on Jayaprakash Narayan's fast in Deoli. **December**—Secret station "Azad Hind Radio" is opened in Germany. **3**—Jawaharlal Nehru and Maulana Azad are released from jail. **5**—Jawaharlal Nehru says, in statement from Lucknow, that "Call of India continues to resound our ears and infuses new blood in our veins." **30**—Congress Working Cttee., at session in Bardoli, passes resolution to relieve Gandhiji from leadership of Congress.

1942

January 3—Jawaharlal Nehru while addressing meeting in Bombay says, "We should have no sympathy with Hitler." Rajendra Prasad, Sardar Vallabhbhai Patel, Acharya J. B. Kripalani and Dr. Profulla Chandra Ghosh also issue statements regarding Congress attitude towards war. **February 9**—Marshal Chiang Kai-shek and Madam Chiang Kai-shek arrive in Delhi. 11—Maulana Azad and Jawaharlal Nehru meet Marshal Chiang Kai-shek and Madame Chiang Kai-shek in Delhi. Seth Jamna Lal Bajaj, treasurer and member of the Congress Working Cttee. passes away at Wardha. **17**—Sir H. P. Mody, N. R. Sarkar and M. S. Aney resign from the Viceroy's Council. **18**—Marshal Chiang Kai-shek meets Gandhiji. **March 22**—Maulana Azad addressing concluding session of Jamiat-ul-ulema Hind at Lahore advises Muslims not to stand in way of freedom of country by presenting different schemes. **23**—Sir Stafford Cripps at press conference in New Delhi says he is great admirer of India and that he wishes to settle all political problems. **25**—Sir Stafford Cripps meets Maulana Azad in New Delhi. **27**—Gandhiji meets Sir Stafford Cripps in New Delhi. **30**—Sir Stafford Cripps, in broadcast, appeals to people of India to get together and form their own constitution. **April 2**—All India Muslim League passes resolution on Cripps' proposal. **6**—Jawaharlal Nehru reports to Congress Working Cttee. about his talk with Col. Johnson, personal envoy of President Roosevelt. **7**—Sir Stafford Cripps puts forward first formula on Defence in his letter to Maulana Azad. Subhash Chandra Bose claims Cripps Mission is a failure. **29 - May 2**—AICC rejects C. Rajagopalachari's resolution on self-determination of Muslims. **May 3**—Sir Stafford Cripps in broadcasts from London says India will have complete freedom soon after war. **June 5** —Jawaharlal Nehru appeals for funds to help *National Herald*, Lucknow. **July 5**—Mahatma Gandhi speaks to Maulana Azad about "Quit India Movement" at Working Cttee. meeting at Wardha. **14**—Congress Working Cttee. releases 700-word resolution on political situation which is described as "Quit India" resolution. **August 8** —Jawaharlal Nehru speaks on Cripps' Mission and Quit India movement at AICC meeting in Bombay. **9**—Gandhiji, Maulana Azad, Jawaharlal Nehru, Vallabhbhai Patel and other prominent congressmen including members of Working Cttee. and President and Secretary of Provincial Congress Cttee. are arrested in Bombay and taken to Poona by Special train. **10**—In a police lathi charge on students' procession about 50 students of Banaras Hindu University get injured. Subhash Chandra Bose republishes his book *The Indian Struggle in Malaya.* **12**—At Assi the police open fire on students' procession killing one and injuring many. S. Satyamurthy is arrested at Arkonam. **15**—Gandhiji writes to Chiang Kai-shek. Mahadev Desai passes away in Aga Khan Palace prison. **16-20**—Working Cttee. of All India Muslim League passes resolution on "Quit India" resolution of Congress. **17**—V. V. Giri, Madras Labour Minister and President of All India Trade Union Congress, is arrested under Defence of India Act. **21**—Sir C.P. Ramaswami Aiyer resigns from Viceroy's Council. **September 7**—Smt. Kamladevi Chattopadhyaya is arrested at Bangalore under DIR. **15**—Smt. Rameswari Nehru, Vice-Pres. of the Harijan Sewak Sangh, and three other lady congress workers are arrested at Lahore under DIR. **29**—Sardar J.J. Singh of India League of America endorses Gandhiji's proposal asking Pres. Roosevelt to intervene in British India dispute. **October 18**—L.S. Amery, Secretary of State for India, reiterates Britain's pledge of freedom to India. **November 12**—C. Rajagopalachari meets Viceroy and gives interview to Indian and Foreign correspondents. **16**—Dr. Shyama Prasad Mookerjee, Finance Minister of Bengal, resigns.

1943

February—Subhash Chandra Bose arrives in Tokyo. **10**—Gandhiji decides on 21-day fast. **19**—Doctors attending on Gandhiji say his condition causes anxiety. Numerous appeals sent to Churchill, Amery and Viceroy for Gandhiji's release. **20**—All Party Leaders' Conference meets at Delhi and passes resolution urging unconditional release of Gandhiji. **26**—Gandhiji meets C. Rajagopalachari. **March 3**—Gandhiji breaks fast at 9.34 A.M. **April 21**—Commonwealth Party in England urges resumption of negotiations and release of Gandhiji unconditionally. **19**—In broadcast Subhash Chandra Bose asks Indians to trust him. **July 4**—Subhash Chandra Bose accepts allegiance to Indian National Army. **16**—Bengal Legislative Council passes resolution urging release of Gandhiji and members of Congress Working Cttee. **August 8**—Subhash Chandra Bose assumes personal command of the I.N.A. **October 21**—Subhash Chandra Bose inaugurates Provincial Government of Free India in Cathay Cinema at Singapore. **23**—Provisional Govt. of Free India declares War on Britain and U.S.A. **November 25**—Smt. Vijayalakshmi Pandit, President, All India Women's Conference, speaks about devastating flood and food crisis in Midnapur Dist. **December 29**—Japanese Admiral at Port Blair receives Subhash Chandra Bose in Andaman Islands.

1944

February 17 — Viceroy, Lord Wavell, addresses Central Legislature on problem of Indian Unity. **20** — Bombay Govt., in its communique, says, "Gandhiji's condition has been deteriorating and is very grave". **22** — Kasturba Gandhi passes away in Aga Khan Palace prison. **March 8** — Under leadership of Pt. Madan Mohan Malaviya about forty prominent leaders decide to raise a fund in memory of Kasturba and present it to Gandhiji on his 75th birthday. **May 5** — Leaders appeal to Viceroy to release Gandhiji. **6** — A New Delhi press communique announces release of Gandhiji unconditionally on medical grounds. Gandhiji is released at 8 A.M. **19** — Gandhiji visits Bombay. **29** — Subhash Chandra Bose collects about Rs. 5 million in cash and ornaments at public meeting in Singapore. **June 28** — Gandhiji addresses Maharashtra Congressmen in Poona. **July 1** — Viceroy refuses interview to Gandhiji. **10** — C. Rajagopalachari publishes his formula to end Congress-League deadlock. **28** — Gandhiji deplores underground activities and sabotage works. **30** — Gandhiji supports C. Rajagopalachari's formula (C.R. formula). **August 14** — Pt. Madan Mohan Malaviya says that he is entirely opposed to the idea of Pakistan. **September 9, 11, 15, 19, 24 and 27** — Gandhiji-Jinnah meetings and discussions take place in Bombay. **October 23** — Subhash Chandra Bose leaves Singapore for Tokyo to attend Greater East Asia Conference. **November 26** — Gandhiji signs Kasturba Memorial Trust Deed.

1945

March 6 — Bertrand Russel advocates independence for India at meeting in Cambridge University. **May 21** — Subhash Chandra Bose appeals to Moscow to help India's cause. **30** — Nawabzada Liaqat Ali Khan speaks on Rajagopalachari's formula on Pakistan. **June 15** — Maulana Azad, Jawaharlal Nehru and others are released. **20** — Jawaharlal Nehru and Viceroy meet at Simla for talks. **21** — Congress Working Cttee. meets at Bombay to discuss Lord Wavell's (Viceroy's) proposals (Wavell Plan). **23** — Jawaharlal Nehru says that Wavell Plan is in nature of an interim arrangement to organise a change. **30** — Gandhiji is surprised at M. A. Jinnah's request to accept Pakistan first. **July 9** — Viceroy writes to M. A. Jinnah. **11** — Viceroy meets Gandhiji. **12** — Jawaharlal Nehru explains Congress attitude on Wavell Plan. **September 12-18** — Congress Working Cttee. passes resolution on United India and self-determination. **19** — Viceroy, Lord Wavell, speaks on general elections and plans for summoning a constitution making body.

1946

January 6 — Sardar Vallabhbhai Patel in a meeting, referring to INA trial, at Bombay, says that any subject country has right to organise its own army and overthrow ruling power. **29**—Jawaharlal Nehru in meeting at Allahabad condemns attack on Communist Headquarters in Bombay. **31** — Members of British Parliamentary delegation meet Jawaharlal Nehru at Allahabad. **February 10** — Gandhiji's *Harijan* Weekly resumes publication after a break of 42 months. **23** — Maulana Azad, in a telegram to British Govt., asks British people to abandon imperialism in India. **March 4** — Jawaharlal Nehru issues statement at Allahabad in connection with strike of Army signalmen and others at Jabalpur. **15** — Earl Attlee, in statement to House of Commons, admits that situation in India has completely changed and requires new approach to solve it. **April 4** — British Cabinet Mission meets M. A. Jinnah and Sir Gulam Hussain Hidayatulla, Premier of sind. **5** — British Cabinet Mission meets Sikh leaders. **10** — Sardar Vallabhbhai Patel says Congress cannot accept Muslim League's proposal of creating new State of Pakistan. **14** — All India Hindu Mahasabha submits memorandum to British Cabinet Mission. **24** — Herbert Hoover, a former U.S. President meets Gandhiji and Jawaharlal Nehru. **28** — Congress Working Ctee. reviews an invitation extended by the British Cabinet Mission to its President, Maulana Azad, for joint meeting in New Delhi with M. A. Jinnah. **May 7** — Gandhiji and M. A. Jinnah meet Viceroy and Sir Stafford Cripps in Simla. **9** — Jawaharlal Nehru is elected president of the Indian National Congress for the fourth time. Jawaharlal Nehru meets M. A. Jinnah at Simla. **12** — Three-member British Cabinet Mission makes statement on position of Princely States in Independent India and their relations with British Crown. **24** — Congress Working Ctee. passes resolution on British Cabinet Mission's proposals stating it is unable to reach final position in absence of full clarification of proposed Provincial Govt. **26** — Jawaharlal Nehru meets Viceroy in New Delhi. **June 6** — Council of All India Muslim League passes resolution on formation of an Interim Govt. **16**—All India Cttee of Hindu Mahasabha passes resolution on Cabinet Mission Plan. Cabinet Mission issues statement on formation of Interim Govt. **19** — Congress decides to join Interim Govt. under certain conditions. **20** — Jawaharlal Nehru is arrested at Domel for defying ban on his entry to Kashmir. **21** — Jawaharlal Nehru is released. **27** — M. A. Jinnah makes statement on acceptance of Cabinet Mission Plan by the Congress. **29**—Members of caretaker Govt. are announced. Cabinet Mission leaves for England. **July 3** — Viceroy accepts resignations of all members of his Executive Council on eve of formation of new caretaker Govt. **6** — Jawaharlal Nehru takes charge of Congress presidentship from Maulana Azad at meeting of AICC in Bombay. **8** — Congress decides to organise a Congress Volunteer Corps under leadership of Major Gen. Shah Nawaz Khan of I.N.A. **22** — Viceroy writes to M. A. Jinnah regarding formation of Interim Govt. **27** — Muslim League Council at its meeting in Bombay passes resolution rejecting Cabinet Mission Plan and reiterates demand for Pakistan. **31** — M. A. Jinnah replies to Viceroy's letter. **August 14** — Jawaharlal Nehru invites M.A. Jinnah to join interim Govt. **18**—Jawaharlal Nehru submits names to Viceroy for inclusion in Interim Govt. **24** — Viceroy announces formation of Interim Govt. at Centre and appeals to Muslim League to join Interim Govt. **September 1** — Viceroy announces portfolios of new Interim Govt. **2** — Interim Govt. assumes office. **7** — Jawaharlal Nehru, in his first broadcast as Vice-President of Interim Govt. explains free India's role in world affairs. Gandhiji, in his prayer speech, appeals to M. A. Jinnah to give up violence and allow Hindus and Muslims to come closer. **14** — Dr. S. Radhakrishnan unveils Gandhiji's statue at Karachi. **16** — Wkg. Ctee. of Forward Bloc meets at Delhi and asserts that Subhash Chandra Bose is alive and will reappear at opportune time. **20** — Achyut Patwardhan elected Gen. Secretary of Cong. Socialist Party in place of Jayaprakash Narayan. **22** — AICC meets at Delhi. Jawaharlal Nehru resigns Congress presidentship. **25** — Viceroy meets Jawaharlal Nehru and Gandhiji. **October 9** — Dr. Ram Manohar Lohia released from prison. An order banning his entry into Goa is served on him. **25** — Smt. Vijayalakshmi Pandit defines India's policy in U.N. General Assembly which opposes recialism and exploitation. Names of Muslim League members of Interim Govt. are announced. **November 12** — Pt. Madan Mohan Malaviya, 85, passes away in Banaras. **23-24** — 54th plenary session of Indian National Congress meets at Pyarelal Nagar, Meerut under presidentship of Acharya J. B. Kripalani. **December 1** — Viceroy Lord Wavell accompanied by Jawaharlal Nehru, M. A. Jinnah, Liayat Ali Khan and Sardar Baldev Singh leaves for London by air to attend London Conference. **8** — Jawaharlal Nehru and Sardar Baldev Singh return to Delhi.

1947

January 6—Sarat Chandra Bose resigns from Congress. **7**—Gandhiji appeals to Muslims to be tolerant. **15** — Maulana Azad joins Interim Govt. as Education Member. **29** — Chamber of Princes accept recommendations of British cabinet on position of princely states in Independent India and their relations with British Crown. **February 10** — Jawaharlal Nehru in statement says Govt. is convinced Subhash Chandra Bose is dead as a result of injuries sustained in aircrash. **20** — Count Attlee, British Prime Minister, announces in House of Commons target date for transfer of power. **24** — M. A. Jinnah insists on formation of Pakistan. Gandhiji calls for Hindu-Muslim Unity. **March 7** — Jayaprakash Narayan resigns from Congress Working Cttee. **12** — Gandhiji starts tour of riot affected areas of Bihar. **15-16** — Jawaharlal Nehru accompanied by Sardar Swaran Singh and Dr. Gopichand Bhargava visit riot affected areas of Rawalpindi, and make an aerial tour of Multan and Amritsar. **31** — Gandhiji arrives in Delhi for talks with Viceroy, Lord Mountbatten. **April 2** — Jawaharlal Nehru elected president in Provincial General Council of Asian Relations Conference. Gandhiji while addressing the Conference says that East must conquer West by message of truth and love. **5** — Gandhiji makes appeal to Hindus not to harbour ill-will against Muslim fanatics. **14** — While inaugurating 7th Session of All India

Manufacturers' Organisation Jawaharlal Nehru stresses need for rapid industrialisation of India. **15** — Gandhiji and M. A. Jinnah issue joint statement denouncing violence. **17** — Acharya J. B. Kripalani, Cong. President, meets Lord Mountbatten. **28** — Dr. Rajendra Prasad while addressing Constituent Assembly, indicates House should be prepared for division of India including some provinces. **30** — Constituent Assembly votes for abolition of titles by Indian Union. **May 1-4** — Under presidentship of Acharya J. B. Kripalani Congress Working Cttee. meeting is held at Delhi. **6** — Jayaprakash Narayan arrested in Hyderabad and externed from State. **24** — Jawaharlal Nehru says M. A. Jinnah's demand for a corridor through India is unrealistic. **27** — Acharya J. B. Kripalani says in case of a division of India it should not be carried out by British. **June 3** — His Majesty's Govt. issues a statement on its final decision regarding transfer of power. Clement Attlee speaks in House of Commons outlining partition of India and date of transfer of power. **6** — Gandhiji meets Viceroy and discusses with him question of partition of Punjab and Bengal. **15** — AICC passes resolution accepting proposals for partition and transfer of power. **July 10** — Clement Attlee makes a speech in House of Commons on Indian Independence Bill. **18** — British Parliament passes an Act to set up dominions of India and Pakistan. **27** — Gandhiji requests Princes to join Indian Union. **August 8** — Nizam of Hyderabad informs Crown representative of State that he will watch relations between India and Pakistan before entering into relation with either Dominion. **12** — U.N. Asst. Secretary General for Legal Affairs brings out a memorandum on effect of Indian Independence Act, 1947. **12** — Viceroy informs Nizam that Govt. of India will not worry him. Four Jt. Councils were set up to consider matters relating to partitioning of India. A tribunal is also set up to make awards in respect of partition disputes. **12-13** — Sir Cyril Radcliff, Chairman, Boundary Commission,. publishes awards on Pakistan boundaries in Bengal, Assam and Punjab. **14** — Constituent Assembly passes resolutions on assumption of power and endorses appointment of Lord Mountbatten as Governor-General of Dominion of India; Lord Mountbatten inaugurates Dominion of Pakistan. **15** — Indian Dominion born at 12 midnight. Jawaharlal Nehru broadcasts as first Prime Minister of India from All India Radio, Delhi. Lord Mountbatten as Governor-General addresses Constituent Assembly. **31** — Jawaharlal Nehru visits riot affected areas in Punjab with Liaqat Ali Khan and Sardar Patel. **September 26** — Gandhiji appeals to safeguard rights of minorities. **27-October 1** — Congress Working Cttee. meets at Delhi. Acharya J. B. Kripalani presides. **18** — Kashmir Govt. complains to Pakistan Govt. of hostile acts. **26** — Maharaja of Kashmir requests Indian Govt.'s help against Pakistan raiders and offers accession of State to India. **27** — Govt. of India accepts offer of accession and sends troops to Kashmir. **30** — Pakistan Govt. blames Kashmir Govt. for Pathan attacks and refuses to recognise Kashmir's accession to India. **November 8** — Diwan of Junagadh seeks India's help to maintain law and order. **9** — Govt. of India intimates Pakistan about request made by Diwan of Junagadh and takes over administration. **14** — Pakistan declares India as a foreign territory for export and import purposes. **29** — Indian Govt. accepts stand-still agreement of Nizam of Hyderabad. **December 12-30** — Letters between Prime Ministers of India and Pakistan are exchanged on Kashmir question. Various types of merger agreements are executed by States. **20** — Govt. of India declare Pakistan as a foreign territory for export of raw jute products.

1948

January 1 — Indian Govt. urges U.N. Security Council to stop Pakistan from assisting raiders in Kashmir. **15** — Pakistan Govt. submits documents on Kashmir to Security Council; N. G. Ayyangar, Permanent representative of India to Security Council, suggests a plebiscite in Kashmir under international auspices. **20** — A bomb explodes near Gandhiji during his prayer meeting in Birla House, New Delhi. U.N. Security Council appoints three-man Commission to settle Kashmir question. **30** — Gandhiji shot dead by Nathuram Vinayak Godse, a member of Rastriya Swayam Sevak Sangh, at 5.10 P.M. just before his evening prayer meeting in Birla House, New Delhi. **February 4** — Indian Govt. bans Rashtriya Swayam Sevak Sangh after assassination of Gandhiji. **8** — Indian Govt. declares Muslim National Guard unlawful. **12** — Immersion of Gandhiji's ashes in holy confluence at Allahabad is witnessed by million people. **14-15** — Hindu Mahasabha passes resolution indicating its withdrawal from political works. **March 5** — Maharaja of Kashmir announces establishment of popular interim Govt. in State. **25** — AICC office is moved from Swaraj Bhavan, Allahabad to 7, Jantar Mantar Rd., New Delhi. **April 12** — Jawaharlal Nehru lays foundation stone of Hirakud Dam. Jawaharlal Nehru lays foundation stone of New capital of Orissa at Bhubaneshwar. **15-18** — Agreement with Pakistan on minority communities signed. **21** — U.N. Security Council in a resolution asks India and Pakistan to withdraw their forces from Kashmir. **May 4** — Interim agreement on Canal waters signed with Pakistan. **26** — An agreement with Pakistan on supply of essential commodities signed. **27** —Mahatma Gandhi murder case hearing starts in Red Fort, Delhi. **June 8** — French Govt. announces future of French settlements in India. **9** — Talks on accession of Hyderabad break down. **20** — Lord Mountbatten leaves India. **21** — C. Rajagopalachari assumes charge as Governor General of India. **July 1** — Ordinance bans transfer of securities held by Nizam of Hyderabad. **2** — Govt. of India bans export of Gold or currency from Hyderabad. **9** — Agreement on sterling balances between India and England signed. **August 20** — Jawaharlal Nehru addresses first meeting of Atomic Energy Commission. **September 9** — M. A. Jinnah passes away. **11** — Nizam rejects India Govt.'s terms. **12** — Indian troops enter Hyderabad territory. **17** — Nizam orders cease-fire; Hyderabad army lays down arms. **18**—Hyderabad comes under military administration with Maj. Gen. Choudhury as Military Governor. **20** — Nizam orders withdrawal of case from U.N. **October 5** — Jawaharlal Nehru leaves for London to attend Commonwealth Prime Ministers' Conference. **24** — Jawaharlal Nehru's talk with Earl Attlee and Liaqat Ali Khan on Kashmir breaks down. **November 3** — Jawaharlal Nehru addresses special session of U.N. General Assembly in Paris. **4** — Dr. B. R. Ambedkar, Chairman,. Drafting Cttee., presents Draft Constitution to Constituent Assembly. **8** — Nathuram Godse confesses to murder of Mahatma Gandhi but denies any conspiracy. **22** — Cyclone in Bombay paralyses city. **24** — Dr. Shyama Prasad Mukherjee resigns membership of Mahasabha executive. **29** — Constituent Assembly adopts article on equality and abolition of untouchability. **December 3** — R.R. Diwakar is appointed Minister of Information. **4** — General Cariappa appointed Commander-in-Chief of Indian Forces. **17** — Kashmir Plebiscite Commission Panel arrives. **18-19** — 55th Congress Session opens in Jaipur under presidentship of Dr. Pattabhi Sitaramayya. **23** — Govt. of India issues a communique on stoppage of Dutch flight across India.

1949

January 1 — Govt. of India orders ceasefire in Kashmir. **20** — Sir Tej Bahadur Sapru passes away. **February 10** — Nathuram Godse and accomplice are sentenced to death for murder of Gandhiji. **April 15** — United Nations Commission for India and Pakistan sends proposals regarding cease-fire line and withdrawal of troops by India and Pakistan. **May 11** — Cttee. on Minorities submits report. **21-22** — Congress Wkg. Cttee. meets at Dehradun. **June 24** — Indo-Pakistani trade agreement signed. **26** — Talks between India and Pakistan on evacuee property end in deadlock at Karachi. **July 10** — Indo-French communique on Chandernagore referendum issued. **12** — Govt. of India withdraws ban on Rashtriya Swayam Sevak Sangh. **27** — Military representatives of India and Pakistan sign agreement demarcating cease-fire line. **August 26** — UNCIP suggests Kashmir issue be solved through arbitration. **September 9** — Indian Govt. disagrees to principle of good-will visit to U.S.A. **November 7** — Governor General rejects mercy petitions of Godse and Apte, sentenced to death in Mahatma Gandhi murder case. **15** — Godse and Apte are executed at Ambala. **23** — Nizam proclaims extension of Indian Constitution to Hyderabad. **24-25** — Raj Pramukhs of Travancore-Cochin and

Mysore proclaim extension of Indian Constitution to their States. **25** — Maharaja of Kashmir extends Indian Constitution as applicable to Jammu and Kashmir. **26** — Third reading of Constitution Bill completed. **30** — Govt. of India issues communique on India's decision to establish diplomatic relations with new Govt. of China.

1950

January 4 — Friendship treaty between India and Afghanistan signed. **14** — Nehru attends Commonwealth Foreign Ministers' Conference in Colombo. **18** — Jawaharlal Nehru suggests No-war Pact between India and Pakistan. **19** — Rail traffic between India and Pakistan is suspended. Nehru lays foundation stone of National Stadium, New Delhi. **24** — Dr. Rajendra Prasad elected President of Indian Republic. **26** — India officially proclaimed as Sovereign Democratic Republic. **31** — Dr. Rajendra Prasad, President of India, delivers an address to Parliament. **February 7** — Indian "White Paper" on disruption of trade and rail traffic with Pakistan issued. **20** — Sarat Chandra Bose passes away. **March 17** — Jawaharlal Nehru declares in Parliament India is gravely concerned with plight of Hindus in East Pakistan. **April 2** — Jawaharlal Nehru and Liaqat Ali Khan (Pakistan Prime Minister) meet at Delhi. **8** — Indo-Pakistan Pact ensuring protection to minorities signed. **14** — Sri Ramana Maharshi passes away. **15** — Dr. S. P. Mookherjee (Min. for Industries) and K. C. Neogy (Min. for Commerce) resign. **25-26** — Chief Ministers of States and P.C.C. Presidents meet at a Conference in New Delhi to formulate economic programme and devise methods to implement it. **26** — Jawaharlal Nehru visits Pakistan. **May 2** — Chandernagore, a French Settlement in India, taken over by Govt. of India. **27** — Sir Owen Dixon, U.N. Mediator in Kashmir Dispute arrives in Delhi. 'Kirti Mandir', a memorial to Mahatma Gandhi, inaugurated by Sardar Patel at Porbandar. **July 1** — India recognises Communist China. **2** — Socialist leader Yusuf Meherally passes away. **August 5** — Chief Minister of Assam, Gopinath Bardoloi, expires. **15** — New currency coins introduced in India. **16** — Earthquake shocks in Assam and eastern parts of India worst in last 50 yrs. **21** — Dixon mission in Kashmir reports failure. **September 20-21** — 56th Congress session, opens at Nasik. Purushottamdas Tandon presides. **October 3** — Jawaharlal Nehru inaugurates eleventh Conference of Institute of Pacific Relations at Lucknow. **November 1** — President Dr. Rajendra Prasad, inaugurates Chittaranjan Locomotive Works. **December 5** — Sri Aurobindo Ghosh expires. India signs new treaty with Sikkim on India's defence responsibility extending to Tibetan borders. Cong. Wkg. Cttee. meets at Sardar Vallabhbhai Patel's residence under presidentship of Purushottamdas Tandon. **15** — Sardar Vallabhbhai Patel passes away. **26** — Central Cabinet reorganised; C. Rajagopalachari becomes Minister for Home Affairs.

1951

January 2 — Jawaharlal Nehru inaugurates Indian Science Conference at Bangalore. **February 9** — First Census enumeration in Independent India starts. **28** — Debate on Kashmir in Security Council begins. **March 1** — India rejects joint U.S.-U.K. plan for Kashmir settlement. **17** — Bakshi Ghulam Mohammed opposes arbitration on Kashmir. **28** — Congress of Cultural Freedom meets at Bombay, under Jayaprakash Narayan. **April 13** — Govt. of India withdraws titles and privileges of Maharaja of Baroda. **21** — Parliament passes Jallianwala Memorial Bill. **24** — Sri Aurobindo Memorial convention meets at Pondicherry. **May 17**—Acharya J. B. Kripalani resigns from Congress. **20** — T. Prakasam resigns from Congress. **27** — Dr. Rajendra Prasad presents President's Colours to Indian Navy in Bombay. **June 11** — Jawaharlal Nehru charges U.S. and U.K. with aiding Pakistan in Kashmir issue. **16** — Dr. Gopichand Bhargawa resigns Chief Ministership of Punjab; Acharya J. B. Kripalani presides over new Praja Socialist Party convention at Patna. **21** — India pleads for Communist China's membership in UNESCO. **26** — Delhi-Moscow direct phone link inaugurated. **July 3** — India protests to U.N. Security Council against Pakistan raids in Kashmir. **8** — Dr. Graham, U.N. representative for Kashmir, visits Srinagar. **18** — Rafi Ahmed Kidwai and Ajit Prasad Jain resign from Central Cabinet. **24** — Jawaharlal Nehru demands "No-War" assurance from Pakistan. **26** — Liaqat Khan invites Jawaharlal Nehru to Karachi for talks. **August 18** — Jayaprakash Narayan and Railway Minister discuss Railwaymen's demands. **31** — C. Rajagopalachari introduces Press Laws Bill in Parliament. **September 7** — Nehru meets Dr. Frank Graham, U.N. Mediator on Kashmir, just before he leaves India. **9** — Nehru takes up Congress Presidentship from Purushottamdas Tandon at AICC meeting in Delhi. **27** — Dr. Ambedkar, Minister for Law, resigns. Parliament passes Aligarh Muslim and Banaras Hindu University Bills. **October 7** — Press Bill becomes an Act. **18-19** — 57th Session of Indian National Congress, presided over by Jawaharlal Nehru, meets at Satyavati Nagar, New Delhi. **28** — China Cultural mission arrives in Calcutta. **November 1** — H.E. Chester Bowles, U.S. Ambassador, presents credentials to the President of India. **7** — M. Patanjali Sastri appointed Chief Justice of India. **20** — Interim Constitution comes into force in Kashmir. **December 5** — Dr. Abanindranath Tagore passes away in Calcutta. **14** — Indo-Turkish treaty of friendship is signed at Ankara. **19** — Dr. Graham submits report on Kashmir to U.N.

1952

February 23 — Parliament passes Employees Provident Fund Bill. **March 14** — Jawaharlal Nehru addresses Conference of Governors and Rajpramukhs in Delhi. **21-22** — Congress Working Cttee. meets at Lake Area, Calcutta, under presidentship of Jawaharlal Nehru. **April 5** — Dr. S. Radhakrishnan meets Marshal Stalin. **14** — Jawaharlal Nehru inaugurates three integrated Railway Zones — Northern, North-East and Eastern at a junction in Delhi. **24** — Dr. S. Radhakrishnan elected Vice-Pres. of India. **May 12** — First Session of India's new Parliament meets in New Delhi. **June 15** — Pakistan rejects India's offer on evacuee property. **July 16** — Sheikh Abdullah meets Jawaharlal Nehru on Kashmir issue. **August 1** — Jawaharlal Nehru inaugurates Nationalised Airways in Delhi. **5** — Indo-Pakistan trade pact is signed. **October 29** — Pakistan decides to stop import of Indian films. **November 1** — Jawaharlal Nehru inaugurates Rural University in Sevagram. **3** — U.S. Aid agreement signed. **26** — China rejects Indian Plan for Korean issue. **December 21** — Dr. Saifuddin Kitchlew awarded Stalin's Peace Prize for 1952.

1953

January 2 — Jawaharlal Nehru inaugurates 40th session of Indian Science Congress at Lucknow. **15** — AICC meets in Hyderabad under presidentship of Jawaharlal Nehru. **17-18** — Jawaharlal Nehru presides over the 58th Plenary Session of Congress at Naval Nagar, Hyderabad. **February 24** — Master Tara Singh and 9 Akali leaders arrested at Amritsar. **March 7** — Jawaharlal Nehru inaugurates Railway's Centenary Exhibition. **18** — Nehru inaugurates Backward Classes Commission, New Delhi. **29** — Jawaharlal Nehru and U Nu (Prime Minister, Burma) meet at Imphal for joint tour of Indo-Burma border areas. **April 2** — Asaf Ali passes away at Berne, Switzerland. **7** — Asaf Ali's body is laid to rest in Delhi. **May 29** — Sherpa Tensing and Sir Edmund Hillary climb Everest. **August 9** — Sheikh Abdullah dismissed and arrested. Bakshi Gulam Mohammed becomes Prime Minister of Kashmir. **22** — Hindu Mahasabha opposes Plebiscite in Kashmir. **27** — Parliament passes Andhra Bill unanimously. **September 15** — Smt. Vijayalakshmi Pandit elected as president of the 8th session of the U.N. General Assembly. **19** — Vinoba Bhave and party are assaulted by Pandas (priests) at gate of Deoghar temple, Bihar. **October 1** — New Andhra State inaugurated by Jawaharlal Nehru at Kurnool. **3** — Dr. A. Krishnaswami Iyer passes away. **7** — Dr. Rajendra Prasad inaugurates Chandigarh, Capital of Punjab State. **29** — India's first Radar Training Centre opened in Bombay. **November 1** — Dr. Rajendra Prasad inaugurates Telegraph Centenary Exhibition. **December 2** — Indo-U.S.S.R. Trade pact signed in New Delhi. **21** — A trade pact between Germany and India signed to establish one steel plant in India.

1954

January 4 — Meher Chand Mahajan takes over as Chief Justice of India. **18** — An Indo-Ceylon pact on future of people of Indian origin in Ceylon signed at New Delhi. **25** — M.N. Roy passes away at Dehru Dun. **February 3** — About 500 pilgrims die in Kumbh Mela stampede at Allahabad. **March 1** — Prime Minister rejects President Eisenhower's offer of Military Aid to India. **26** — C. Rajagopalachari resigns leadership of Congress Party and Chief Ministership of Madras. **29** — Prime Minister Nehru inaugurates Institute of Public Administration in N. Delhi. **30** — K. Kamaraj Nadar elected leader of Madras Legislature Congress Party. **April 1** — Twenty-first anniversary of Indian Air Force celebrated. Air Marshal Mukherjee takes over as first Indian Chief of Air Staff. **10** — Jawaharlal Nehru opens Central Salt Research Institute at Bhavnagar. **18** — Punjab Assembly speaker Dr. Satyapal passes away at Simla. **June 1** — Andhra Assembly passes Sri Venkateswara University Bill. **12** — President gives assent to Bihar Land Reform (Amendment) Act, 1953. **25** — Chou En Lai, Chinese Prime Minister arrives in New Delhi for talks with Jawaharlal Nehru. **28** — A communique issued by Prime Ministers of India and China outlining 5 principles (Panch Shil) for regulation of relations between nations. **July 1** — Office of Indian High Commission in South Africa closed. **16** — Decision of French Govt. to transfer *de facto* power to people of Mahe is implemented. **25** — India accepts chairmanship of three Supervisory Commissions for Viet-Nam, Laos and Cambodia. **August 15** — Goan volunteers enter Portuguese possession of Goa to offer *Satyagraha.* **20** — Govt. of India accepts Bank Dispute Award with modifications. **30** — V. V. Giri, Union Min. of Labour, resigns from Central Cabinet. **September 10** — Khandubhai K. Desai sworn in as Minister for Labour in Union Cabinet. **October 1** — Jawaharlal Nehru inaugurates Stamps Centenary Exhibition at New Delhi. **14** — A two-year trade agreement signed between India and China. **23** — National Industrial Devpt. Corpn. holds first meeting in New Delhi. **24** — Rafi Ahmed Kidwai, Union Minister of Food expires. **November 1** — A *de facto* merger of French settlements of Pondicherry, Karaikal, Mahe and Yanam with Indian Union takes place. **4** — Jawaharlal Nehru lays foundation stone for Himalayan Mountaineering Institute at Darjeeling. **6** — Ministry led by T. Prakasam in Andhra resigns. **9** — Ministry led by Jai Narain Vyas of Rajasthan resigns. **27** — Acharya J. B. Kripalani resigns office of Chairman of Praja Socialist Party. Acharya Narendra Dev takes his place. **December 5** — Girja Shankar Bajpai dies at Bombay. **10** — U. N. Dhebar elected President of Ind. Nat. Congress. **15** — J. P. Srivastava dies in Lucknow. **23** — B. K. Mukherjea takes over as Chief Justice of India. **26** — Dr. B. C. Roy, Chief Min. of W. Bengal, opens Hindustan Cable Ltd. at Rupnarainpur.

1955

January 1 — Dr. S. S. Bhatnagar, Chairman of University Grants Commission dies in New Delhi. **6** — All India Forward Bloc decides to merge with Congress. **11** — India's first newsprint factory at Nepanagar (M.P.) goes into production. **21** — 60th session of Indian National Congress, under presidentship of U. N. Dhebar meets at Avadi, near Madras. **March 10** — Working Journalists (Industrial Disputes) Bill is passed by Lok Sabha. **22** — A direct radio telephone link between India and Burma is established. **April 7** — Rajya Sabha passes Hindu Guardianship Bill. **11** — An Air-India Constellation, Kashmir Princess, carrying delegates to Bandung Conference crashes into sea north of Sarawak. **12** — Col. Nasser, Prime Min. of Egypt, arrives in New Delhi on way to Bandung Conference; Lok Sabha passes Constitution (Fourth Amendment) Bill. **28** — Lok Sabha passes Untouchability (Offences) Bill. **May 5** — Lok Sabha passes Hindu Marriage Bill. **9** — Govt. of India sends a strong protest to Pakistan Govt. concerning firing by border police at Nekowal, near Jammu, in which 10 Indians were killed. **15** — Gen. S. M. Shrinagesh takes over as Chief of Army Staff. **29** — N. M. Joshi, a founder of Trade Union Movement in India, dies of heart-attack in Bombay. **June 4** — India establishes direct radio telephone link with U.S.S.R. **15** — Ministry of Iron and Steel is inaugurated. **July 10** — Govt. of India draws up a programme to replace English with Hindi. **12** — An Indo-Pakistan Conference to discuss opening of passenger traffic between India and West Pakistan begins in New Delhi. **15** — President confers *Bharat Ratna*, highest national award, on Jawaharlal Nehru. **20** — All Party Goa Liberation Cttee. decides to launch mass satyagraha on August 15. **21** — Dr. Ram Manohar Lohia suspended from P.S.P. **August 1** — Direct rail service between Calcutta and Lahore resumed. **5** — Appointment of 11-member Law Commission with C. C. Setalwad as Chairman is announced by C. C. Biswas, Union Law Minister. **8** — Dr. H. J. Bhabha is elected Chairman of International Conference on Peaceful Uses of Atomic Energy. **15** — Thirty-one Indian Satyagrahis are killed and 44 wounded by Portuguese police. **24** — Dr. Ram Manohar Lohia announces decision to form a new 'Socialist Party of India' at Allahabad. **September 7** — All India Council for Secondary Education is set up by Govt. **19** — Jt. Select Cttee. of Parliament on Hindu Succession Bill recommends equal shares for sons and daughters in respect of intestate property of father. **30** — States Reorganisation Commission submits report to Govt. **October 2** — Jawaharlal Nehru inaugurates Integral Coach Factory at Perambur. **5** — Jawaharlal Nehru inaugurates Hindustan Machine Tools Factory at Bangalore. **24** — Prohibition Enquiry Cttee. recommends nationwide prohibition in India by April 1958. **November 9** — Congress Wkg. Cttee. approves S.R.C. proposals in respect of all the areas except Bombay, Punjab and Andhra. **19** — Bulganin, the Russian Prime Minister, and Khruschev, Secretary of the Communist Party of Russia, arrive in Delhi on a goodwill visit.

1956

January 7 — Govt. of India recognises Republic of Sudan. **19** — President promulgates an ordinance bringing all life insurance companies under Govt. management; Dr. P. C. Bagchi, Vice-chancellor of Viswa Bharati Univ. passes away at Shantiniketan. **23** — A new cabinet headed by Sardar Pratap Singh Kairon sworn in by Punjab Governor. **February 1** — S. R. Das is sworn in as Chief Justice of India. **16** — Their Imperial Majesties, Shah and Queen of Iran, arrive in Delhi; Dr. Meghnad Saha, eminent scientist and a member of Lok Sabha, passes away in N. Delhi. **19** — Acharya Narendra Deva, Chairman of the P.S.P. and a noted educationist, passes away at Erode. **27** — G. V. Mavalankar, Speaker of Lok Sabha, passes away at Ahmedabad. **March 1** — C. D. Deshmukh, Min. of Finance, discloses Govt. is not in favour of taking over General Insurance business. **8** — M. Ananthasayanam Iyengar elected Speaker of Lok Sabha. **20** — Sardar Hukum Singh elected Dy. Speaker of Lok Sabha. **April 6** — Shipping agreement between India and Soviet Union signed. **18** — States Reorganisation Bill introduced in Lok Sabha. **26** — Jawaharlal Nehru opens India's first newsprint factory at Nepanagar, Madhya Pradesh. **28** — India and Canada sign pact on Atomic Reactor. **May 5**—Indo-Pakistan ministerial conference on minority exodus meets at Dacca. **13** — Acharya Vinoba Bhave starts Bhoodan campaign in Tiruvellore. **15** — Jawaharlal Nehru presents Second Five Year Plan to Houses of Parliament. **June 20** — Govt. of India recognises Tunisia and Morocco as Sovereign States. **22** — Dr. John Mathai resigns office of Chairman, State Bank of India. **July 13** — Govt. of India decides to constitute a Central Harijan Welfare Board. **23** — B. G. Tilak's Centenary celebrated throughout country. **24** — President accepts resignation of C. D. Deshmukh, Union Min. for Finance. **August 3** — Dr. Zakir Hussain re-elected President of World University Service. **4** — India's first Atomic Reactor goes critical in Bombay. **6** — Union Cabinet decides on bilingual Bombay State. **18** — K. Hanumanthaiya, Chief Minister of Mysore, tenders resignation of his cabinet. **19** — A new six-member Mysore Ministry, headed by K. Manjappa, sworn in at Bangalore. **24** — C. D. Deshmukh appointed Chairman of University Grants Commission. **31** — T. T. Krishnamachari appointed Finance Minister of India. **September 2** — 120 persons killed in a rail disaster in Hyderabad State. **5** — India and Burma sign five-year trade agreement in Delhi. **18** — Sadar K. M. Panikkar appointed India's ambassador to France.

20 S. K. Dey sworn in as Min. for Community Devpt. B.R. Sen elected Director General of Food and Agricultural Organisation at Rome. **October 14** — Dr. B. R. Ambedkar and about 200,000 Scheduled Caste members embrace Buddhism in Nagpur. **16** — Y. B. Chavan elected leader, Cong. Legislature Party, Bombay State. **17** — Ernakulam-Quilon Railway link inaugurated by Railway Min. Lal Bahadur Shastri. **18** — Dr. Hare Krushna Mahtab sworn in as Chief Minister, Orissa. **19** — S. Nijalingappa elected leader of New Mysore Cong. Legislature Party. **November 6** — Maulana Azad elected president of Ninth Session of UNESCO in New Delhi. **14** — Morarji Desai sworn in as Minister of Union Cabinet. **24** —.Dalai Lama, Panchan Lama and Maharaja of Sikkim arrive in Delhi to participate in 2,500th Buddha Jayanti celebrations. **25** — Lal Bahadur Shastri resigns following the Ariyalur train disaster. **28** — Chou En Lai, Prime Min. of China, and party arrive in New Delhi on 12-day visit. **December 6** — Dr. B. R. Ambedkar passes away in Delhi. **30** — Chou En Lai and Nehru begin their second round of talks.

1957

January 5-6—62nd Session of Indian National Congress meets at Laxmibai Nagar, Indore, under presidentship of U. N. Dhebar. **20**—Prime Minister Nehru inaugurates atomic reactor in Bombay. **22**—India and Pakistan sign trade agreement. **February 24**—India's Second General Elections begin. **March 11**—B. G. Kher passes away in Poona. **16**—P. S. Kumara Swamy Raja, former Governor of Orissa, passes away. **May 10**—Dr. Rajendra Prasad re-elected President of India for second term. **13**—Dr. Rajendra Prasad and Dr. S. Radhakrishnan are sworn in as President and Vice-President respectively. **20**—T. Prakasam, valiant freedom fighter and former Chief Minister of Andhra, passes away at Hyderabad. **June 2**—Twenty-two persons die in a suburban electric train collision at Wadala, Bombay. **10**—V. V. Giri sworn in as Governor of Uttar Pradesh. **14**—H. V. Pataskar sworn in as Governor of Madhya Pradesh. **August 2**—Devdas Gandhi, S/o Mahatma Gandhi, passes away in Bombay. **16**—Centenary of First War of Independence (Mutiny 1857) celebrated all over India. **26**—Nagas' convention decides at Kohima to give up demand for Independence. **28**—Jayaprakash Narayan resigns from P.S.P. **September 8**—R. R. Divakar, former Governor of Bihar, elected Chairman of Gandhi Smarak Nidhi. **October 1**—A. J. John, Governor of Madras, passes away in Madras. P. V. Rajamannar, Madras Chief Justice, is acting Governor. **16**—Justice P. Govinda Menon dies in New Delhi. **29**—Pres. Rajendra Prasad confers upon Pandit G. B. Pant the title of Bharat Ratna. **November 5**—Yuvraj Karan Singh elected Sadar-i-Riyasat of Jammu and Kashmir State. **10**—U.S.S.R. and India sign an agreement for setting up heavy industries in India. **December 5**—U.S.A. and India sign pact for eradicating malaria in 3 years. **14**—Jawaharlal Nehru inaugurates Calcutta suburban electric train.

1958

January 8—Harold MacMillan, British Prime Minister, arrives in New Delhi. **12**—Dr. Frank Graham, U.N. Rep. for India and Pakistan, arrives in New Delhi. **18**—63rd annual session of Indian National Congress meets at Gauhati under presidentship of U. N. Dhebar. **26**—D. K. Karve awarded Bharat Ratna. **February 5**—Ho Chi-Minh, Pres., Democratic Republic of Viet Nam, arrives in New Delhi. **12**—T. T. Krishnamachari, Union Finance Minister, resigns. **22**—Maulana Abul Kalam Azad, Union Min. for Education, passes away in New Delhi. **March 22**—Morarji Desai takes over as Union Finance Minister. **29**—S. K. Patil takes over as Minister for Transport and Communications. **April 14**—Smt. Aruna Asaf Ali elected first Lady Mayor of Delhi Municipal Corpn. **18**—Dr. D. K. Karve celebrates 101st birthday. **May 13**—Discovery of natural gas at Jwalamukhi announced. **19**—Jadunath Sarkar, famous historian, passes away in Calcutta. **June 14**—Dr. C. V. Raman receives Lenin Peace Prize at Kremlin. **July 1**—S. K. Patil, Union Minister for Transport and Communications, inaugurates first direct shipping link between Calcutta and New York. **August 9**—Indian Security Forces drive Pakistan intruders from Tukergram. **September 11**—A joint communique by Prime Ministers of India and Pakistan on border disputes released in New Delhi. **14**—M. C. Chaagla appointed India's Ambassador to U.S.A. **15**—N. V. Gadgil sworn in as Governor of Punjab. **18**—Dr. Bhagwan Das, eminent philosopher and scholar, passes away in Banaras. **October 12**—Periyar Hydro-electric project inaugurated. **November 10**—Oil is struck at one experimental drilling site at Vadser, near Vadodara (Baroda). **15**—National Mineral Devpt. Corpn. Pvt. set up. **17**—A Central Board of Workers' Education set up. **December 15**—Jawaharlal Nehru warns Pakistan that aggression will be met everywhere.

1959

January 10—Dr. Rajendra Prasad inaugurates Diamond Jubilee celebration of Haffkine Institute in Bombay. **21**—Prince Phillip, Duke of Edinburgh, arrives in New Delhi on a state visit. **24**—First blast furnace of Rourkela Steel Plant commissioned. **March 10**—M. R. Jayakar, former Vice-Chancellor of Poona University, passes away in Bombay. **18**—U.N. Secretary General Dag Hammarskjoeld arrives in New Delhi and meets Jawaharlal Nehru. **April 3**—Jawaharlal Nehru makes statement in Lok Sabha regarding Dalai Lama's entry into Indian territory on March 31, and seeking political asylum. **26**—Indian Institute of Astronomical and Sanskrit research inaugurated in New Delhi. **May 6**—Discovery of new coal seam in Madhya Pradesh announced in Lok Sabha. **June 11**—Prof. N. G. Ranga resigns from Congress and takes up leadership of newly formed Swatantra Party. **22**—Kasturi Srinivasan, editor of *Hindu*, passes away in Madras. **July 3**—Robert Menzies, Prime Minister of Australia, arrives in New Delhi on state visit to India. **August 1**—Swatantra Party's convention meets in Bombay. **22**—Saiyid Fazl Ali, Governor of Assam, passes away at Shillong. **28**—Prime Minister informs Lok Sabha of intrusion of Chinese Forces in NEFA and Ladakh. **September 10**—Govt. of India sends note to Chinese Govt. reaffirming stand on MacMohan Line as representing boundary between India and Tibet region of China. **30**—Kumari Arati Saha successfully swims English Channel. **October 21**—Chinese soldiers enter Eastern Ladakh, kill 9 patrol policemen, and capture 10. **November 2**—Dr. John Mathai, former Union Finance Minister, passes away in Bombay. **14**—China releases ten members of police patrol. **25**—A. S. Altekar, eminent Indian Historian, dies in Patna. **29**—G. S. Sardesai, an eminent historian on Maratha history, dies at Kamshet, near Poona. **December 4**—Maulana Ahmed Sayeed, President of Jamiat-ul-Ulema Hind, passes away. **9**—Dwight D. Eisenhower, President of U.S.A., arrives in N. Delhi on state visit to India. **17**—B. Pattabhi Sitaramayya, a former Pres. of Congress and former Governor of M.P., passes away in Hyderabad. **27**—Prime Minister of Cambodia, Prince Norodom Sihanouk arrives in New Delhi.

1960

January 10—Jawaharlal Nehru lays foundation stone of Rs. 100 million rail-cum-road bridge across Brahmaputra at Pandur. **16-17**—Congress session under presidentship of Sanjiva Reddy meets at Bangalore. **20**—President Voroshilov of Soviet Russia arrives in New Delhi on state visit. **21**—Trade agreement between India and Yugoslavia signed in N. Delhi. **30**—J. C. Kumarappa, renowned scholar of Gandhian thought, passes away in Madras. **February 2**—His Holiness Sri Sankaracharya of Puri passes away in Bombay. **11**—Nikita Khruschev, Prime minister of USSR, arrives in New Delhi. **April 19**—Chou En Lai, Prime Minister of China, arrives in N. Delhi for talks on Sino-Indian border problem; The National Defence College opened in N. Delhi. **May 1**—new States of Maharashtra and Gujarat come into being. **24**—Ida S. Scudder, founder of Vellore hospital and Medical College, passes away at Kodaikanal. **June 16**—Indo-Russian agreement for collaboration in oil and gas exploration signed in N. Delhi. **16**—International Telex Service between India and United Kingdom inaugurated. **July 1**—B. Ramakrishna Rao and V. V. Giri take charge as governors of U.P. and Kerala respectively. **10**—Canada-India reactor at Trombay attains criticality. **September 14**—M. Visveswaraya Centenary celebrations inaugurated in Bangalore. **16** — National Tuberculosis Institute of India inaugurated in Bangalore. **October 14**—Indo-Polish trade pact signed in Warsaw. **25**—Trade agreement between India and Yugoslavia signed in Belgrade. **November 6**—Prime Minister, Jawaharlal Nehru, formally inaugurates Heavy Electricals Plant at Bhopal. **9**—Air Marshal Subroto Mukherjee, India's Chief of Air Staff, dies in Tokyo. **11**—Prime Minister of Burma, U Nu and Mrs. U Nu arrive in New Delhi on a state visit. **19**—Jawaharlal Nehru inaugurates Govind Sagar Dam and Power House of Chambal Project. **29**—Crown Prince Akihito and Princess Michiko of Japan arrive in New Delhi on state visit. **December 1**—C. B. Gupta elected chief of Congress legislature in Uttar Pradesh; Air Marshal A. M. Engineer takes over command of Indian Air Force. **3**—Lt. Gen. P. N. Thapar appointed as Chief of Army Staff. **10**—C. C. Biswas, former Union Min. for Law, dies in Calcutta.

1961

January 6—66th Session of Indian National Congress meets at Sardarnagar, Bhavnagar. **12**—Papers concerning Indus water treaty between India and Pakistan exchanged in New Delhi. **16**—Exchange of territories between India and Pakistan under Indo-Pakistan border agreement begins. **21**—Queen Elizabeth and Duke of Edinburgh arrive in New Delhi on state visit. **31**—Bihar's Chief Minister, Srikrishna Sinha, passes away in Patna. **February 18**—Binodanand Jha heads new ministry in Bihar. **March 2**—Queen Elizabeth and Duke of Edinburgh leave after Indian tour. **7**—Union Home Minister, Pt. Gobind Vallabh Pant, passes away in N. Delhi. **9**—K. Rama Rao, former editor of *National Herald,* passes away. **24**—Five-day session of World Council of Peace inaugurated in N. Delhi. **April 6**—Vice-President Radhakrishnan inaugurates Motilal Nehru Birth Centenary Celebrations at Agra. **May 2**—Tagore Birth Centenary Celebrations are inaugurated in N. Delhi. **June 24**—Hindustan Fighter (HF-24) supersonic aircraft, manufactured in India, makes inaugural flight. **29**—Sardar Baldev Singh, former Defence Minister passes away in Delhi. **July 19**—President Rajendra Prasad taken seriously ill in N. Delhi. **25**—Dr. S. Radhakrishnan sworn in as acting President of India. **August 15**—Master Tara Singh, Akali leader, begins fast unto death for demand of Punjabi Suba in Amritsar. **16**—Swami Rameshwaranand, Pres. of Punjab Hindi Raksha Samiti, begins counter fast in Delhi to oppose Akali demand for Punjabi Suba. **22**—Indo-Pakistan Conference on Punjab-West Pakistan Border begins in N. Delhi. **October 1**—Master Tara Singh breaks 48-day old fast. **November 7**—Jawaharlal Nehru meets Pres. Kennedy in Washington. **21**—Averell Harriman, Spl. representative of Pres. Kennedy, arrives in New Delhi. **29**—First Russian Cosmonaut, Yuri Gagarin arrives in New Delhi. **December 18**—India's Defence Forces march into Goa.

1962

January 1—First state-owned oil refinery at Nunmati, Assam, inaugurated. **13**—Ajoy Ghosh, General Secretary of Communist Party of India, passes away. **14**—Air defence radar set, developed and manufactured in India, inaugurated in Poona. **March 12**—Mrs. Jacqueline Kennedy, wife of Pres. John F. Kennedy of U.S.A., arrives in N. Delhi. **April 14**—M. Visveswaraya, Engineer-Statesman, passes away in Bangalore. **May 7**—Dr. Zakir Husain declared elected Vice-President of India. **11**—Dr. S. Radhakrishnan declared elected Pres. of India. **13**—Dr. S. Radhakrishnan and Dr. Zakir Husain take oath of office; Dr. Rajendra Prasad, outgoing president, awarded 'Bharat Ratna'. A special postage stamp is also issued in his honour. **July 1**—Dr. B. C. Roy, eminent statesman and physician and Chief Minister of West Bengal, passes away in Calcutta; Purshottamdas Tandon, former Cong. President (Bharat Ratna), passes away in Allahabad. **August 20**—Govt. of India decides to build second nuclear power station at Rana Pratap Sagar near Kotah in Rajasthan. **29**—Lok Sabha passes State of Nagaland Bill, 1962. **September 8**—Chinese make fresh encroachment on Indian territory in eastern sector. **25**—Three-member team of Gandhi Peace Foundation, headed by C. Rajagopalachari leaves for U.S.A. to appeal for ban on nuclear arms. **28**—Indian and Chinese troops exchange fire near Dhola Post. **October 12**—Heavy fighting begins on NEFA front between Indian and Chinese troops. **20**—China launches massive attack in NEFA and Ladakh areas. **31**—Prime Minister Nehru takes over Defence Portfolio and appoints Krishna Menon as Minister of Defence Production. **November 9**—Bharat Ratna D. K. Karve, eminent educationist, social worker and centenarian, passes away in Poona. **21**—China announces cease-fire from midnight along entire Sino-Indian Border. **December 18**—Yugoslav Vice-President Kardelj arrives in New Delhi. **28**—Pakistan and China decided to sign boundary agreement on basis of 'location and alignment of boundary actually existing' between Sinkiang and Pakistan occupied portion of Kashmir.

1963

January 7—Rs. 460 million Rihand Dam, near Mirzapur inaugurated by Jawaharlal Nehru. **9**—Morarji Desai, Union Finance Minister, announces measures to control gold in India. **11**—Lala Shri Ram, a philanthropist, educationist and industrialist, passes away in N. Delhi. **15**—Pakistan delegation headed by Z. A. Bhutto arrives in New Delhi for second round of talks on Kashmir and related matters. **20**—Dr. S. Radhakrishnan, inaugurates Vivekananda Centenary celebrations in Calcutta. **February 28**—Dr. Rajendra Prasad, first President of India, passes away in Patna. **April 17**—Dr. S. Radhakrishnan presents Bharat Ratna award to Dr. Zakir Husain and P. V. Kane. **27**—An agreement with Philips Petroleum Co. of U.S.A. for setting a refinery in India signed in N. Delhi. **May 14**—Dr. Raghuvira, President of the Jan Sangh, passes away in Kanpur. **June 2**—Dr. S. Radhakrishnan leaves for U.S.A. on a state visit. **July 14**—Swami Sivananda Saraswati, founder President of Divine Life Society, passes away at Rishikesh. **August 28**—President Dr. S. Radhakrishnan, accepts resignations of six Union ministers (who resigned under Kamaraj Plan). **October 6**—Baba Kharak Singh, veteran Sikh leader, passes away in N. Delhi. **11**—Saijuddin Kitchlew, close associate of Gandhiji and Lenin Prize winner, passed away in New Delhi. **23**—Third unit of HMT inaugurated by Prime Minister Nehru at Pinjore. **November 20**—K. Kamaraj elected President of Indian National Congress. **December 1**—Dr. S. Radhakrishnan inaugurated Nagaland as 16th State of Indian Union. **10**—Sardar K. M. Panikkar, renowned scholar and diplomat, passes away in Madras. **18**—Smt. Vijayalakshmi Pandit sworn in as Governor of Maharashtra in Bombay.

1964

January 4—Orientalists from all over the world meet in N. Delhi. **9**—Kamaraj delivers presidential address to 68th session of Indian National Congress held at Bhubaneshwar. **February 6**—Raj Kumari Amrit Kaur passes away; India rejects in U.N. Security Council Pakistan's demand for plebiscite in Kashmir. **18**—I.A.F. transport Illyushin Aircraft reported missing; top army officials aboard are believed killed. **April 15**—National Council of Communist Party of India suspends 32 leaders from party membership. **May 27**—Jawaharlal Nehru, First Prime Minister of Independent India, passes away; late Jawaharlal Nehru cremated in N. Delhi (Shantivana). **June 2**—Lal Bahadur Shastri elected leaader of Congress Parliamentary Party. **9**—Lal Bahadur Shastri sworn in as Prime Minister. **September 10**—H. N. Sanyal, Solicitor General of India, is murdered in N. Delhi. **October 12**—Prime Minister Shastri and President Ayub Khan of Pakistan meet in Karachi. **18**—Smt. Vijayalakshmi Pandit resigns Governorship of Maharashtra. **December 2**—Millions welcome Pope in Bombay. **3**—Pope Paul confers highest decoration (Golden spur) on Dr. S. Radhakrishnan. **5**—Pope Paul leaves India. **18**—Pakistan diplomat expelled from Calcutta for spying. **31**—Chinese troops intrude into Sikkim; India sends protest note.

1965

January 8 — Prime Minister Lal Bahadur Shastri lays foundation stone of Durgapur Fertiliser Factory. **15** — Barauni Oil Refinery inaugurated. **26** — Hindi becomes official language of Union. **February 6** — S. Pratap Singh Kairon, former Chief Minister of Punjab, shot dead near Delhi. **April 16** — Namrup thermal power project commissioned. **May 12** — Lal Bahadur Shastri arrives in Moscow on 8-day state visit. **June 6** — Lal Bahadur Shastri leaves on tour of U.A.R., Canada, U.K. and Algeria. **23** — Presidential awards for Everest heroes are announced. **July 20** — Batukeshwar Dutt, great revolutionary, passes away in N. Delhi. **August 5**— Jayaprakash Narayan awarded Ramon Magsaysay Award for public service. **7** — Pakistani sabotage parties infiltrate two sectors of ceasefire line in Jammu and Kashmir. **13** — Lenin Peace Prize awarded to Mrs. Aruna Asaf Ali. **15** — Television transmission begins in New Delhi. **25** — Indian security forces cross ceasefire line in Kashmir at two points and establish new positions. **September 1** — Pakistan invades Indian territory in Chhamb sector, India retaliates. **6** — President Ayub of Pakistan declares war on India. **17** — China issues 72 hours ultimatum to India to dismantle military installations on Sikkim border. Prime Minister Shastri warns China against trying to intervene militarily in India-Pakistan conflict. **18** — Soviet Union requests Prime Minister Lal Bahadur Shastri and President Ayub Khan of Pakistan to meet at Tashkent to resolve differences. **19** — Chief Minister Balwantrai Mehta of Gujarat dies in plane mishap. **22** — India and Pakistan accept ceasefire proposals of U.N. Security Council. **October 11** — First phase of Gujarat refinery at Koyali commissioned. **30** — Pakistan seizes Indian jute and tea worth Rs. 50 million from ships seized in war. **November 12** — Head of Dawoodi Bohra community Dr. Saifuddin passes away. **23** — Prime Minister Lal Bahadur Shastri accepts Soviet Prime Minister Kosygin's invitation for talks with President Ayub Khan of Pakistan in Tashkent. **December 18** — Gen. K. S. Thimayya, Commander of U.N. Peace Force in Cyprus passes away in Nicosia. **29** — First tank made in India rolls out of Avadi factory.

1966

January 7 — A five-year trade agreement is signed with U.S.S.R. **10** — Indo-Pakistani agreement signed at Tashkent. **11** — Prime Minister Lal Bahadur Shastri passes away within hours of signing Tashkent agreement. **18** — Smt. Indira Gandhi elected leader of Congress Parliamentary Party. **24** — Smt. Indira Gandhi sworn in as Prime Minister. Dr. Homi Bhabha, India's nuclear Scientist and Chairman of Atomic Energy Commission, dies in Air India crash on Mont Blanc in the Italian Alps. **February 26** — V. D. Savarkar, an eminent revolutionary, passes away. **March 8** — A. K. Sarkar appointed as Chief Justice of India. **May 9** — President Radhakrishnan inaugurates Gokhale birth centenary celebrations at Poona. **26** — India lifts ban on trade with Pakistan; Vikram Sarabhai appointed Chairman of Atomic Energy Commission and Secretary of Deptt. of Atomic Energy. **June 6** — Devaluation of Rupee by 36.5 per cent. **July 1** — Fourth unit of H.M.T. factory at Kalamassery is inaugurated by Prime Minister Smt. Indira Gandhi. **September 10** — Reorganisation Bill passed. **23** — Cochin Oil Refinery inaugurated by Prime Minister Smt. Indira Gandhi. **26** — Sr. C. P. Ramaswami Aiyer, eminent educationist, passes away in London. **October 17** — Govt. appoints commission, headed by Mehar Chand Mahajan, to go into border disputes between Maharashtra and Karnataka and Karnataka and Kerala. **November 1** — States of Punjab and Haryana and Union Territory of Chandigarh come into being. **9** — Gulzarilal Nanda, Home Minister resigns. **13** — Y. B. Chavan becomes Home Minister and M. C. Chagla, External Affairs Minister. **December 1** — Parliament passes Goa Opinion Poll Bill. **21** — V. K. Krishna Menon quits Congress.

1967

January 5 — India's first Ayurvedic University inaugurated. **20** — Goa rejects option for merger with Maharashtra by an impressive majority in opinion poll. **February 25** — Nizam of Hyderabad passes away. **March 13** — New council of ministers headed by Smt. Indira Gandhi sworn in. Morarji Desai becomes Dy. Prime Minister. **16** — New Lok Sabha meets. **April 9** — President Radhakrishnan decides to retire. **10** — U.N. Secretary General U Thant arrives in Delhi. **12** — President presents Nehru Award to U Thant. **May 6** — V. V. Giri wins Vice-Presidential election. **9** — Dr. Zakir Husain elected President of India. **15** — Bharatiya Kranti Dal is formed by non-Congress leaders. **August 23** — Pakistan expels three officials of Indian High Commission. **September 1** — China takes over Indian property in Tibet. **5** — M. C. Chagla resigns from cabinet on language policy. **October 12** — Dr. Ram Manohar Lohia passes away. **November 1** — Telecommunication links with Pakistan restored. **4** — Mahajan Commission awards Belgaum to Karnataka. **22** — Master Tara Singh, Akali leader, passes away. **December 11** — A series of earth tremors in Western India wipes out entire Koyna township killing about 250 people. **12** — Mehar Chand Mahajan, former Chief Justice of India, passes away.

1968

January 26 — Dr. M. S. Aney, a prominent Congressman, passes away. **February 11** — Deendayal Upadhyaya, President of the Bharatiya Jan Sangh, found dead on railway track in Mugalsarai Railway Yard. **13** — A. B. Vajpayee elected Jan Sangh President. **17** — Dr. Kailash Nath Katju passes away. **April 6** — Prime Minister Smt. Indira Gandhi inaugurates construction work of Bokaro Steel Plant. **28** — Emperor Haile Selassie of Ethiopia arrives in New Delhi. **May 13** — India sends protest notes to China and Pakistan over Gilgit-Sinkiang road agreement. **27** — Second Nehru Award for International Understanding for 1966 is given to Rev. Martin Luther King posthumously. **July 6** — Submarine Wing of Indian Navy comes into being with arrival of INS *Kalvari*. **September 1** — President Ayub Khan of Pakistan rejects India's offer of 'No-War' pact. **November 10** — Asia's biggest mechanised iron mine at Bailadila project in Madhya Pradesh starts functioning.

1969

January 2 — Shah and Queen of Iran arrive in New Delhi. **10** — Dr. Sampurnanand, prominent Congressman and former U.P. Chief Minister, passes away at Varanasi. **February 3** — Tamil Nadu Chief Minister C. N. Annadurai (DMK leader) passes away. **16** — President Zakir Husain inaugurates week long Ghalib Centenary celebrations, Ghalib Centenary stamp is released. **22** — Dr. Gokul Chand Narang, Arya Samaj leader, passes away in Delhi. **March 9** — Sir Homi Mody, founder-member of Swatantra Party, passes away in Bombay. **25** — President Ayub Khan steps down from power. **31** — Gen. Yahya Khan assumes office of President of Pakistan. **April 5** — First India-built tanker for Navy launched. **18** — King and Queen of Afghanistan are received at Palam airport by President Zakir Husain and Prime Minister Smt. Gandhi. **22** — A Calcutta bound Indian Airlines Fokker Friendship plane crashes at Dumuria, killing all 40 passengers and crew of four. **15-28** — 72nd Congress session under presidentship of S. Nijalingappa meets at Neki Ram Sharma Nagar, Faridabad. **May 3** — President Dr. Zakir Husain dies of heart attack. V. V. Giri sworn in as acting President. **June 8** — Gen. Kumaramangalam retires as Chief of Army Staff; Gen. Manekshaw takes over. **26** — India lodges protest with Pakistan and China againt construction of new road from Mor Khun in Northern Kashmir to Khunjerah pass on Kashmir-Sinkiang border. **July 12** — Congress Parliamentary Board meeting at Bangalore nominates N. Sanjiva Reddy for Presidentship. **13** — V. V. Giri, Acting President, announces candidature for Presidentship. **15** — Major train accident near Jaipur, 82 killed and 123 injured. **16** — Prime Minister takes over Finance portfolio from Morarji Desai; Morarji Desai resigns. **19** — Fourteen top scheduled banks with deposits exceeding Rs. 500 million are nationalised. Acting President V. V. Giri resigns as Vice-President. **21** — V. V. Giri and N. Sanjiva Reddy file nomination papers for Presidentship. **31** — U.S. President Richard Nixon arrives in Delhi. **August 1** — Prime Minister Smt. Indira

Gandhi and President Richard Nixon hold talks in New Delhi. **9** — Bank Take-over Bill becomes law after President's assent. **15** — Smt. Indira Gandhi insists on freedom of vote in Presidential election; Congress splits on issue. **18** — Prof. Humayun Kabir, former Union Min. passes away in New Delhi. **20** — V. V. Giri elected President of India and sworn in on 24th. **30** — Gopal Swarup Pathak, Congress candidate, is elected as Vice-President of India. **September 8** — Supreme Court issues limited stay of operation on Bank Nationalisation Act. **19** — Large scale communal clashes take place in Ahmedabad. **23** — India invited to Islamic Summit Conference at Rabat and then refused entry. **October 1** — Khan Abdul Ghaffar Khan arrives in India after 23 years to take part in Gandhi Centenary celebrations. **2** — Gandhi Birth Centenary celebrations begin. The President, V. V. Giri releases a set of coins and notes. **8** — Dr. P. V. Cherian, Governor of Maharashtra, dies of heart attack. **November 14** — Indira Gandhi donates 'Anand Bhavan' at Allahabad to Jawaharlal Nehru Memorial Fund; President V. V. Giri inaugurates Jawaharlal Nehru University in New Delhi. **23** — Quin-Centenary celebrations of Guru Nanak begin. **24** — Akali Leader, Sant Fateh Singh, threatens self-immolation if Chandigarh not merged with Punjab; Khan Abdul Ghaffar Khan addressed both Houses of Parliament. **December 1** — Jagjivan Ram chosen President of Congress (R). **3** — Atal Behari Vajpayee re-elected Jan Sangh President. **9** — G. G. Swell elected Dy. Speaker of Lok Sabha. **13** — B. Rama Rau, former Governor of Reserve Bank of India, expires. **20** — Congress Organisation session begins at Ahmedabad. **24** — Meghalaya (Assam Reorganisation) Bill passed by Parliament. **25** — Congress (Ruling) session begins in Bombay.

1970

January 8 — Tamil Nadu Govt. abolishes controls over movement and sale of foodgrains in State. **24** — Foundation stone of Rs. 180 million Gujarat Aromatic Project laid at Vadodara. **27** — Sant Fateh Singh starts six-day fast demanding merger of Chandigarh with Punjab. **29** — Union Govt. awards Chandigarh to Punjab and Rs. 200 million and 110 villages in Fazilka to Haryana. **February 3** — Foundation stone of new Rs. 700 million fertiliser plant laid at Talcher in Orissa. **9** — Prime Minister inaugurates Rs. 300 million Urea Fertilizer plant at Kota (Rajasthan). **28** — Admiral S. M. Nanda takes over as Chief of Naval Staff. **March 8** — Haryana and Uttar Pradesh agree to undertake joint construction of Kishan Dam project near Dehra Dun at cost of Rs. 1,800 million. **19** — Prime Minister inaugurates drilling of country's first offshore oil well in Gulf of Cambay. **24** — Lok Sabha passes Banking Companies (Acquisition and Transfer of Undertaking) Bill to replace Ordinance re-nationalising 14 major banks. **April 2** — Prime Minister Indira Gandhi inaugurates Meghalaya, a new autonomous Hill State in Assam. **3** — India signs Rs. 5,362.5 million iron-ore export deal with Japan. **23** — President Giri leaves for Bhutan on four-day state visit. **May 11** — Supreme Court upholds election of V. V. Giri as President of India. **19** — Prime Minister Indira Gandhi lays foundation stone of 5.7 k.m. road bridge across Ganges at Patna. **23** — India and U.S.A. sign trade agreement at N. Delhi. **30** — Administrative Reforms Commission wound up. **July 19** — Kashmir police smashes Pak spy-ring in State. **22** — Floods in Alaknanda river sweeps away 22 vehicles and about 200 persons at Belakuchi, 40 miles from Badrinath. **August 2** — Dr. Telo Mascarenhas arrives in N. Delhi, after serving ten-year term in Portuguese jails. **9** — Trilokyanath Chakravarty Maharaj, revolutionary leader from East Bengal, passes away. **23** — Union Govt. asks British Broadcasting Corpn. to close down its operation in India. **29** — I.A. Fokker plane crashes in Meghalaya with 39 people aboard. **September 2** — President V. V. Giri inaugurates Vivekananda Rock Memorial at Kanyakumari. **5** — Prime Minister Indira Gandhi leaves for Lusaka to attend non-aligned summit meeting. **20** — President V. V. Giri arrives in Tashkent on 10-day State visit to Soviet Union. **October 9** — Bhabha Atomic Research Centre produces Uranium 233. **19** — First India-made MIG aircraft handed over to Air Force. **24** — India tells U.S.A. that American resumption of arms to Pakistan can seriously damage Indo-American relations. **November 4** — Jawaharlal Nehru Award for International Understanding for 1968 presented to Yehudi Menhuin in N. Delhi. **10** — Centre agrees to full statehood for Meghalaya. **21** — Dr. C.V. Raman, eminent physicist and Nobel Prize winner, passes away in Bangalore. **27** — Prime Minister Indira Gandhi presents Bharatiya Jnanpith Award for 1969 to Raghupathi Sahal 'Firaq'. **30** — Guruvayoor Sri Krishna temple ravaged by devastating fire. **December 15** — Lok Sabha passes Bill conferring statehood on Himachal Pradesh. **26** — Indo-Soviet agreement on long-term trade signed in N. Delhi.

1971

January 2 — Congress (O), Jana Sangh and Samyukta Socialist Party form alliance against Congress (R) for Fifth General Elections. **18** — P.S.P. leader Nath Pai dies of heart-attack. **30** — Indian Airlines Fokker friendship aircraft, on regular flight from Srinagar to Jammu, hijacked to Lahore. **February 2** — Hijacked plane blown up at Lahore airport. India bans overflight of Pak military aircraft across Indian territory. **18** — India establishes first satellite communication link *via* — Arvi Earth Stn. with Goonbily in Britain. **March 1** — Polling in Fifth General Election begins all over country. **10** — Tenth Census begins all over country. **18** — A new Union Council of Ministers headed by Smt. Indira Gandhi sworn in. **31** — Both Houses of Parliament pass resolutions expressing solidarity with people of East Pakistan (Bangla Desh) following arrest of Sheikh Mujibur Rahman on 25th March. **April 6** — India grants asylum to two diplomats, K. M. Shahabuddin and Anjadul Haque, belonging to Pak. High Commission in Delhi. **15** — India protests to Pakistan against wanton unprovoked firing along East Bengal border. **18** — Pak. Dy. High Commission in Calcutta declares allegiance to Bangladesh. **24** — Pakistan withdraws Dy. High Commission from Calcutta and asks India to withdraw its mission from Dacca. **May 13** — President Giri promulgates General Insurance Ordinance nationalising general insurance companies. **19** — New submarine base of Indian Navy *Vir Bahu* commissioned. **June 16** — India and Soviet Union agree on five-year plan (1971-75) for joint exploration of minerals in oceans adjacent to India. **August 2** — Parliament approves Medical Termination of Pregnancies Bill legalising abortions. **5** — Pakistan President Yahya Khan threatens to unleash war on India. **6** — In a memorandum to U.N. Secretary General 500 M.P.s appeal to save life of Sheikh Mujibur Rahman. **9** — India and Soviet Union sign 20-year Treaty of Peace, Friendship and Co-operation. **31** — Dr. M. S. Swaminathan awarded 1971 Raman Magsaysay award for community leadership. **October 5** — India and W. Germany sign 5-year agreement on developing peaceful uses of atomic energy. **November 1** — Severe cyclone hits Orissa. **7** — Rs. 48.7 million dry dock at Hindustan Shipyard, Visakhapatnam, inaugurated. **18** — Defence Ministry announces formation of India's second naval fleet—Eastern Fleet—to be based at Visakhapatnam. **22**—Indian Air Force Gnats shoot down three intruding Pak planes over Boyra near Calcutta. **December 3** — Pakistan attacks on Indian airbases in eastern and western sectors. President Giri declares state of emergency in country. Pakistan declares war on India. **4** — India informs U.N. of Pak aggression. **6** — India recognises People's Republic of Bangladesh. Pakistan stops diplomatic ties with India. **10** — India and Bangladesh sign agreement for unified military command. **11** — Gen. Manekshaw calls upon Pak troops in Bangladesh to surrender. **16** — Lt.-Gen. Arora, G.O.C.-in-C., Eastern Command, accepts unconditional surrender of Pak forces in Dacca; Prime Minister Indira Gandhi announces unilateral ceasefire on western front with effect from 20.00 hrs. on 17th December. **17** — 14-day Indo-Pak war ends. **18** — President Giri confers Nation's highest award 'Bharat Ratna' on Prime Minister Indira Gandhi. **30** — Dr. Vikram A. Sarabhai, Chairman of Atomic Energy Commission, dies at Kovalam, near Trivandrum.

1972

January 5—India discontinues import of food grains from U.S.A. under P.L. 480. **10**—Sheikh Mujibur Rehman arrives in New Delhi after being freed by Pakistan Govt. **20**—State of Meghalaya and Union Territory of Arunachal Pradesh are inaugurated by Prime Minister Mrs. Gandhi. **21**—States of Manipur and Tripura and the Union Territory of Mizoram are inaugurated by Mrs. Indira Gandhi. **February 11**—Union Govt. issues orders stopping payment of privy purses to former rulers from Jan. 1972. **March 5**—General election to State Assemblies begins. **19**—India and Bangladesh sign 25-year treaty of friendship, co-operation and peace. **April 14**—Eighty-five Chambal ravine dacoits lay down arms before Sarvodaya leader, Jayaprakash Narayan, in Jaura. **18**—P. V. Kane, an eminent indologist and recipient of 'Bharat Ratna', passes away. **June 2**—Union Govt. sets up Space Commission. **28**—Indo-Pakistan summit talks between Prime Minister Indira Gandhi and President Z. A. Bhutto start at Simla. **July 2**—Prime Minister Indira Gandhi and President Z. A. Bhutto sign agreement at Simla committing India and Pakistan to abjure use of force in resolving differences. **15**—Bakshi Ghulam Mohammad, former Premier of Kashmir, passes away at Srinagar. **28**—Charu Mazumdar, founder of Naxalite movement and C.P.I. (Marxist-Leninist), dies of heart attack in Calcutta hospital. **August 12**—First rocket by Indian Space Research Organisation launched from Thumba Equatorial Rocket Launching Station. **29**—Indo-Pak official level talks end in Delhi agreeing to delimitation of line of control. **September 6**—Ustad Allauddin Khan, 110-year-old sarod maestro, passes away. **October 2**—Bombay T.V. Centre commissioned. **30**—Akali leader, Sant Fateh Singh, expires in Amritsar. **November 27**—Bangladesh President arrives in New Delhi on first State visit to India. **December 1**—India and Pakistan repatriate prisoners of war captured on western front during 1971 Indo-Pak war. **25**—C. Rajagopalachari passes away in Madras.

1973

January 2—Chief of Army Staff Gen. S.H.F.J. Manekshaw is promoted to rank of Field Marshal. **27**—Rohini-560, India's biggest rocket, launched from Sriharikota in Andhra Pradesh. **February 5**—Prime Minister Indira Gandhi presented with F.A.O. medal. **March 6**—AIR and GRD Television sign three-year protocol on exchange of T.V. programmes. **25**—Oil struck at Sibsagar in Assam; Rashbehari Das, noted philosopher passes away at Midnapur. **April 1**—A Rs. 40 million programme to preserve Indian tiger is launched. **20**—Atomic Power Station at Rawat-Bhata, near Kota, starts operation. **24**—Supreme court upholds Parliament's right to amend Constitution including fundamental rights. **25**—Justice Ajit Nath Ray appointed Chief Justice of India. **May 20**—Cochin Shipyard Ltd., and a Scottish firm sign agreement to build bulk carriers of 75,000 DWT in India. **August 12**—Assam, Uttar Pradesh, Punjab and Jammu & Kashmir are ravaged by floods. **September 3**—Prime Minister Indira Gandhi leaves for Algiers to attend non-aligned nations' summit meeting. **16**—Chogyal of Sikkim arrives in New Delhi. **29**—Armed men hijack bank cash van containing Rs. 600,000 killing the security guard in New Delhi. **October 1**—Guru Gopala Panikkar, Kathakali exponent, expires at Cochin. **12**—King Birendra of Nepal arrives in New Delhi. **29**—British Centenary of Swami Ramatirtha observed. **November 11**—Dewan Chamanlal (81), Trade Unionist and Congress leader, expires in Delhi. **17**—Mother of Aurobindo Ashram expires at Pondicherry. **25**—Leonid Brezhnev, Chief of Soviet Communist Party, arrives in N. Delhi on official visit. **December 1**—Allahabad University closed following students' rampages and arson. **12**—Riots rock Maharashtra and Karnataka on boundary dispute. **18**—Muzaffar Ahmed (85), founder member of C.P.I. passes away.

1974

January 13—Mrs. Gandhi lays foundation stone at Narora in Uttar Pradesh for the fourth nuclear power station. **February 9**—President's rule imposed in Gujarat following Chief Minister, Chimanbhai Patel's resignation. Assembly suspended. **10**—Army opens fire on food rioters in Ahmedabad. **16**—Army moved out of Ahmedabad city. **March 1**—Cong.-CPI alliance gets absolute majority in Orissa Assembly elections; Congress gets absolute majority in U.P. poll. **3**—Demand raised for dissolution of Gujarat Assembly, four killed in Gujarat in police firing. **18**—Two killed, 23 injured in Patna on opening day of Assembly, price rise protest; the *Searchlight* office and printing press burnt by demonstrators. **19**—Trouble spreads to entire State of Bihar; 10 killed, 31 injured in police firing. **April 12**—Eight killed, 12 injured in Gaya police firing on student-led "Paralyse the Government" demonstration. **14**—Jayaprakash Narayan forms new organisation to "save democracy." **21**—734 Pakistani prisoners of war repatriated through Wagah border post. **23**—Jayaprakash Narayan announces five-week agitation plan to press resignation of Ghafoor Ministry and dissolution of Assembly. **30**—Lt. General Niazi and the last batch of prisoners of war leave for Pakistan. **May 8**—Railwaymen begin strike all over India. **18**—India carries out first underground nuclear explosion at Pokhran in Rajasthan. **23**—Canada suspends all nuclear aid to India. **28**—20-day-old Railway strike called off. George Fernandes and other leaders released. **June 5**—Supreme Court holds the view that dissolution of an Assembly is not a hurdle in election of President. **21**—Sikkim Assembly calls for integration of Sikkim's economic and social development in India's planning. **27**—Katchativu Island transferred to Sri Lanka, agreement signed in **Delhi**. **August 1**—Jayaprakash Narayan launches "no tax Campaign" in Bihar. **September 7**—Constitution (35th Amendment) Bill to give representation to Sikkimese in Indian Parliament passed. Ordinance promulgated to detain smugglers under MISA. **19**—India-USSR sign a protocol on economic and technical programme. **October 8**—V.K. Krishna Menon passes away. **15**—India and Pakistan resume telecommunication links which were snapped during the 1971 war. **November 1**—Mrs. Gandhi-J.P. Narayan meeting for 90 minutes ends in failure. **4**-Jayaprakash Narayan and Sarvodaya workers injured as police lathi charge a procession trying to *gherao* Secretariat and Ministers-thousands arrested. **December 1** -Mrs. Sucheta Kripalani passes away. **7** -Indo-Pakistan trade embargo lifted. **15** -India and Bangladesh reach agreement on rail link. **31** -India and Portugal re-establish diplomatic ties.

1975

January 11—Oil struck in third Bombay High well. **20**—36 killed in quake in Kinnaur Lahaul-Spiti in Himachal Pradesh. **February 20**—Rs. 100 million said to be unearthed in unaccounted gold in Jaipur palaces. **March 6**—People's march to Parliament, J.P. presents charter to presiding officers—announces marches elsewhere in the country before April 6. **18**—Jayaprakash Narayan leads "people's morcha" to the Bihar Vidhan Sabha. **20**—The Chief Justice of India, A.N. Ray, escapes attempt on life, hand-grenades thrown into his car. **April 15**—Sikkim in referendum votes for full Statehood in India and for the abolition of the institution of the Chogyal. **19**—India ushered into space age: satellite "Aryabhatta" launched from a cosmodrome in Soviet Union. **23**—Lok Sabha passes Sikkim bill. **May 11**—The Sriharikota ground station resumes test commands to "Aryabhatta". **16**—Sikkim joins Indian Union as 22nd State. **20**—Oil found in fifth Bombay High well. **June 12**—Mrs. Gandhi's election set aside by Allahabad high court, court accepts two charges of corrupt practices, disqualification order stayed for 20 days. **18**—Janata front government comes into being in Gujarat with Babhubhai Patel as Chief Minister. **20**—Supreme court agrees to special arrangements to deal with Prime Minister's appeal without automatic vacation of Allahabad high court stay order. **24**—Mr. Justice V. R. Krishna Iyer of the supreme court gives conditional stay of Allahabad high court judgement but says Mrs. Gandhi's rights as PM are not restricted. **26**—President declares emergency to meet "internal threat" to security, Jayaprakash Narayan, Morarji Desai and a number of oposition leaders and dissident congressmen arrested. **27**—Presidential order bars arrested persons from moving courts. **28**—I. K. Gujral shifted to planning ministry, V. C. Shukla takes over as Minister for Information and Broadcasting. **July 1**—Mrs. Gandhi announces 20-point economic programme; smugglers not to be provided with grounds of detention, new ordinance promulgated. **4**—RSS, Anand Marg, Jamat-i-Islam and 23 other organisations banned; Sheikh Abdulla, Mirza Afzal Beg elected to the Kashmir Assembly. **6**—The National Conference of Jammu & Kashmir revived by Sheikh Abdulla. **24**—Parliament approves 38th Constitution amendment. **25**—Parliament approves the conservation of foreign exchange and prevention of smuggling activities bill. **29**—Parliament approves MISA bill. **August 7**—The Lok Sabha passes Constitution (39th amendment) bill, and adjourns *sine die*. **8**—Constitution (39th amendment) bill, 1975, placing election of President, Vice-President, Prime Minister and Lok Sabha Speaker beyond the scrutiny of judiciary, approved by Parliament. The Rajya Sabha adopted bill as passed by the Lok Sabha.**9**—The Rajya Sabha adopts Constitution (41st amendment) bill extending immunity from criminal and civil proceedings to the Prime Minister. **25**—Mrs. Indira Gandhi's poll case hearing begins in supreme court. **October 9**—Mrs. Gandhi's case; Supreme Court reserves judgement on constitution and poll law amendments. **10**—Oil struck in Bengal basin (second offshore well at 130 kms. east of Balasore). **24**—"Bonded" labour abolished by ordinance. **November 7**—PM's election upheld by Supreme Court. **12**—Supreme Court dissolves bench which held the basic structure hearings; Jayaprakash Narayan released on parole. **December 4**—Jayaprakash Narayan set free. **8**—The Government assumes special powers to prevent the publication of objectionable matter in the press, repeals immunity for press reports of Parliament and abolishes press council from New Year Day.

1976

January 2—Writer, actor, editor and political thinker Kainikkara M. Padmanabha Pillai expires at Trivandrum. **4**—Socialist Party leader N. G. Goray announces the formation of the Janata Front comprising the Cong. O, the Jana Sangh, Bharatiya Lok Dal and Socialist Party. **8**—The President issues an order suspending the right of any person to move any court for the enforcement of the rights. **13**—Tabla player Ahmed Jan Thirakwa dies at Lucknow. **14**—Dr. Jal Patel (Hon. Physician to the President of India) expires in Bombay. **15**—A bill for the Government taking over Burmah Shell is introduced in the Lok Sabha; Kannada writer B. Shivamoorthy dies at Bangalore. **18**—Punjabi leader Giani Gurumuk Singh Musafir passes away in New Delhi. **20**—A bill for the forfeiture of the illegally acquired properties of smugglers and foreign exchange manipulators is passed by the Lok Sabha. **22**—Industrialist Gujar Mal Modi expires at Bombay. **24**—Parliament approves the Maintenance of Internal Security (Amendment) Bill which replaces two MISA ordinances promulgated on the subject earlier. **25**—The nation's highest honour, "Bharat Ratna", is conferred posthumously on K. Kamaraj. **28**—The Urban Land (Ceiling and Regulations) Bill is introduced in the Lok Sabha. **31**—Tamil Nadu comes under President's rule. **February 4**—Parliament approves new bonus law. **5**—The Lok Sabha passes the bill to prevent lay-offs, retrenchment and closure of industrial units. **March 1**—The President issues two ordinances to facilitate the separation of accounts from audit both at the Union and State levels. **12**—Gujarat State is placed under President's rule. **27**—The ruling Congress Party gets two-thirds majority in the Rajya Sabha with the completion of the biennial elections all over India. **April 15**—India and China decide to upgrade their diplomatic representation in each other's country to ambassadorial level. K. R. Narayanan is appointed India's ambassador to China. **16**—Government decides to raise the minimum age of marriage from 15 to 18 for girls and from 18 to 21 for boys through suitable legislation. **May 6**—Former Chief Justice of India, Koka Subha Rao, passes away in Bangalore. **14**—India and Pakistan agree to re-establish full diplomatic relations at ambassadorial level, restoration of other severed links, like airlinks (including overflights) and road and rail links. **June 9**—Lady Cowasji Jehangir dies in Bombay. **July 10**—At the ministerial conference of non-aligned countries India called for the setting up of a co-ordination council to make the press agencies pool operational as soon as possible. **12**—China names Chen Chao-Yuan as its ambassador to India. **17**—Educationist and industrialist Dr. A. Ramaswami Mudaliar expires in Madras. **August 2**—India strikes oil in Bombay High and Bassein. **18**—Urdu Poet Jan Nisar Akhtar passes away in Bombay. **27**—Play-back singer Mukesh expires in Detroit (U.S.A.) **September 2**—Marathi literature & Jnanpith award winner V. S. Khandekar passes away at Miraj. **10**—Indian Airlines Boeing with 79 passengers was hijacked to Lahore. **25**—The National Development Council adopts the Fifth Plan providing for a public sector outlay of Rs. 3,93,300 million. **27**—Educationist Beram Shapurji Saklatvala expires in London. **October 5**—Educationist and mathematician Prof. P. L. Bhatnagar passes away at Allahabad. **10**—Union Minister for Law Gokhale rules out a referendum on the Constitution Amendment Bill. **18**—Poet Laureate of Andhra Pradesh Viswanatha Satyanarayana passes away at Vijayawada. **November 1**—The Lok Sabha approves all the 59 Clauses of the Constitution (44th Amendment) Bill after accepting some Government amendments. **5**—The Lok Sabha approves the Bill seeking to extend its term by another year. **December 1**—Sanskrit scholar Kashinath Shastri Abhyankar is murdered along with five members of his family in Pune. **11**—Maharashtra Governor Ali Yavar Jung expires in Bombay. **16**—Orissa Chief Min. Mrs. Nandini Satpathy resigns, State comes under President's rule. **20**—Mrs. Gandhi reshuffles her cabinet. Hitendra Desai joins the cabinet. D.P. Chattopadhyaya promoted. **24**—President's rule is lifted in Gujarat, Madhavsingh Solanki forms new government. **31**—Economist Dr. S. N. Agarwala dies in New Delhi.

1977

January 5—The Purna Kumbh began at Allahabad with 200,000 pilgrims trekking to the confluence of the Ganga, the Yamuna and the mythical Saraswati for a holy dip. **18**—President dissolves Lok Sabha; **19**—The Sarkaria Commission submits its report to Union Government against former Tamil Nadu Chief Minister, M. Karunanidhi. **20**—Govt. relaxes rules of emergency and decides not to enforce press censorship; Congress-O, Jan Sangh, Bharatiya Lok Dal and Socialist Party agree to form Janata Party. **22**—Indo-Bangladesh ministerial level talks on sharing Ganga waters end in New Delhi without agreement. **23**—Janata Party sets up National Committee with Morarji Desai as Chairman. **28**—Mr. Justice Mirza Hameedullah Beg appointed Chief Justice of India. **February 2**—Jagjivan Ram, Union Minister for Agriculture and Irrigation, resigns from Cabinet and Congress Party. **5**—Congress for Democracy formed with Jagjivan Ram as its president. **11**—President Fakhruddin Ali Ahmed dies; B. D. Jatti sworn in as Acting President. **25**—India's second earth station for satellite communication at Dehra Dun inaugurated. **March 16**—Polling for Lok Sabha election starts in 300 parliamentary constituencies spread over 15 States and Union Territories. **18**—Vocalist Siddheshwari Devi dies in New Delhi; Second round of polling begins. **19**—Third round of polling, public holiday. **20**—Fourth round of polling begins; Mrs. Indira Gandhi in Rai Bareilly, Bansilal in Bhivani, Sanjay Gandhi in Amethi and others defeated. **21**—Marxist leader A. K. Gopalan passes away at Trivandrum; Internal Emergency promulgated on June 25, 1975, withdrawn; Press Censorship goes; Kerala Ruling Front wins 111 out of 140 Assembly seats. **22**—Janata Party gains absolute majority in Lok Sabha; Mrs. Indira Gandhi resigns; ban on R.S.S. and 26 other organisations lifted; Y. B. Chavan elected leader of Congress Parliamentary Party. **24**—Morarji Desai elected leader of Janata Party and sworn in as Prime Minister. **25**—19-Member Union Cabinet announced; Sixth Lok Sabha session begins; Kerala Ministry headed by K. Karunakaran sworn in. **26**—Sanjiva Reddy elected speaker of the Lok Sabha; Baroda Dynamite case withdrawn. **27**—Government revokes external emergency promulgated on December 3, 1971; Jagjivan Ram joins Central Cabinet; All India Anna DMK extends unconditional support to Janata Party. **28**—Jagjivan Ram, H. N. Bahuguna, Raj Narain, George Fernandes and Brij Lal Verma sworn in as Cabinet ministers. **April 11**—Janata Front Ministry headed by Babubhai Patel sworn in in Gujarat. **12**—All inter-state restrictions on wheat movement abolished under the new ration policy. **13**—D. K. Barooah resigns as Congress President. **14**—Swaran Singh elected President of Congress Party. **16**—Vasantrao Patil replaces S. B. Chavan as Chief Minister in Maharashtra. **27** — Kerala Chief Minister K. Karunakaran resigns and new Ministry headed by A. K. Antony sworn in; Goa Assembly dissolved. **29**— Supreme Court dismisses suits and injunction application filed by some State Governments against proposed dissolution of Assemblies. **May 1** — Janata Party holds inaugural convention at Pragati Maidan, New Delhi; Chandrashekhar chosen president of Janata Party. **5** — Congress for Democracy at its New Delhi session decides to merge with Janata Party. **8** — Members of Sikkim Congress join Janata Party *en bloc*. **9** — Congress ministry in Mizoram headed by Ch. Chunga resigns. **11** — Election Commission recognises Janata Party as a national party. **13** — Manipur Ministry headed by R. K. Dorendra Singh resigns. **16** — Manipur is placed under President's rule. **18** — India and China decided to resume trade after a gap of nearly 15 years. **19** — Justice J. C. Shah Commission to inquire into excesses committed during the Emergency formally announced. **20** — For the first time ever AIR and Doordarshan made available to all recognised political parties at national and state level to carry their message to the people. **24** — Arunachal Congress Committee decides to merge with Janata Party. **28** —D. S. Mathur, retired Chief Justice of Allahabad High Court, appointed to inquire into affairs of Maruti concerns; National Professor Dr. Suniti Kumar Chatterjee expires in Calcutta. **June 7** — A four-member Goa Ministry headed by Mrs. Shashikala Kakodkar sworn in. **14** — Janata gains absolute majority in assembly elections in Haryana, Himachal Pradesh and Rajasthan States, and in Delhi Metropolitan Council; Akali-Janata-CPI-M alliance gets absolute majority in Punjab. **15** — Janata gets absolute majority in Uttar Pradesh, Madhya Pradesh and Orissa States; The All India Anna DMK gets absolute majority in Tamil Nadu. **16** — Janata Party gets absolute majority in Bihar and C.P.I.-M in West Bengal. **20** — Prakash Singh Badal sworn in as Chief Minister of Punjab. **July 3** —G. Narasimhan, Mg. Dir. of *The Hindu* passes away in Madras; Sheikh Abdullah re-elected Chief Minister of Jummu & Kashmir.. **13** — Sanjiva Reddy files nomination papers for presidential election after resigning as Lok Sabha Speaker; Government decides to discontinue national awards. **21** — Neelam Sanjiva Reddy elected unopposed as President of India; K. S. Hegde unanimously elected Speaker of Lok Sabha. **August 3** — 1977 Ramon Magsaysay Award for Community leadership awarded to Ela Ramesh Bhatt, organiser and teacher of self-employed women vendors in Western India. **30** — V. M. Tarkunde selected for 1978 International Humanist Award for his contribution to the defence of democracy, human rights and human values in India. **September 10** — Planning Commission decides to introduce rolling plan instead of five-year plans. **16** — S. R. Das, former Chief Justice of India expires in Calcutta. **17** — Bhaiyasaheb Ambedkar, Pres., All India Buddhist Mahasabha, expires in Calcutta. **October 3** — Mrs. Indira Gandhi arrested in New Delhi by CBI on charges of corruption. Also arrested were K. D. Malaviya, H. R. Gokhale, D. P. Chattopadhyaya and P. C. Sethi. **4** — Mrs. Indira Gandhi released unconditionally; External Affairs Minister, A. B. Vajpayee, addresses U.N. General Assembly in Hindi for the first time ever. **21** — Prime Minister Morarji Desai leaves for Russia. **29** — 400th anniversary of Amritsar city celebrated. **November 1** — First world conference on Malayalam, Kerala culture and development inaugurated at Trivandrum. **4** — An Indian Air Force aircraft carrying Prime Minister, Morarji Desai, crash lands at Tatalgaon and kills five members of the crew. **5** — Tripura placed under President's Rule; India and Bangladesh formally sign Farakka agreement in Dacca. **12** — Cyclone kills over 500 in Thanjavur dist., Tamil Nadu. **19** — Cyclone hits coastal Andhra Pradesh killing thousands of people. **23** — Prakash Vir Shastri, member, Rajya Sabha, and 19 others die in train mishap near Rewari. **December 14** — Marathi writer G. D. Madgulkar expires in Pune. **16** — Bangladesh President Zia Ur Rehman in Delhi for talks with Prime Minister Desai and others. **18** — Mrs. Indira Gandhi resigns from Congress Working Committee.

1978

January 1-3 — President Jimmy Carter of U.S.A. visits India. **3** — Mrs. Indira Gandhi splits the Indian National Congress, forming Cong. (I), becomes president of the new party; Congress Working Committee expels Mrs. Indira Gandhi and her followers; Shriman Narayan (65), Gandhian economist expires in Gwalior. **6** — British Prime Minister Mr. James Callaghan visits India, agrees to sale of Jaguar defence plane; Lilawati Munshi (79), noted social worker, passes away in Bombay. **7** — Bulk carrier M.V. *Chandragupta*, with 69 aboard is lost in the ocean off Honolulu. **16** — Janata Govt. demonetises currency notes of Rs. 1,000 denomination and over in a bid to unearth unaccounted money. **18** — Bhimsen Sachar (84), former Chief Minister of Punjab, expires. **21** — Ramniwas Ramnarain Ruia (67), a well-known industrialist, dies in Bombay. **February 2** — G. Shankara Kurup (76) doyen of Malayalam poetry and recipient of first Jnanpith Award, expires in Trivandrum. **3** — Shah of Iran visits India with Shahbanu. **9** — 16-member Chinese trade delegation begins talks with the Commerce Ministry. **11** — Prime Minister Morarji Desai and Minister of External Affairs Atal Behari Vajpayee leave for Sydney to attend the regional conference of Commonwealth countries in Asia and Pacific. **15** —Justice Y. V. Chandrachud is appointed Chief Justice of India. **19** — Pankaj Mullick (73), eminent musician, dies in Calcutta. **20** — B. R. Shenoy (73), noted economist, dies in New Delhi. **22** — H. V. R. Iyengar (76), former Governor, Reserve Bank of India, dies in Bangalore. **25** — Election takes place in Andhra Pradesh, Assam, Karnataka, Maharashtra, Meghalaya States and Union Territory of Arunachal Pradesh. **March 10** — R. Ranga Rao (77), former Raja of Bobbili and premier of the composite Madras Province, dies in Madras. **17** — A freak cyclone hits the Delhi University area, kills 30 and injures 700. **19**—M. Ananthasayanam Ayyangar (87), former Speaker of the Lok Sabha, dies in Tirupathi. **24** — King Jigme Singya Wangchuk of Bhutan arrives on a four-day visit. **April, 3** — Hriday Nath Kunzru (90), founder member of the Servants of India Society and Scholar, dies in Agra. **13** — The 42nd Constitution Amendment Act, enacted during the emergency is replaced. **16** — A tornado kills 150 people and injures several hundreds in five villages of Keonjhar district, in Orissa. **17** — "Ghatshraddha" the Kannada film is awarded the Golden Lotus for the National Best Feature Film, Satyajit Ray's "Shatranj ke Khilari is adjudged the best feature film in Hindi. **18** — Syrian President Hafez al Assad visits India. **29** — M. R. A. Baig, veteran Diplomat, dies in New Delhi. **30** — Home Minister Charan Singh resigns from working committee and Parliamentary Board of Janata Party. **May 5** — Sanjay Gandhi, accused in the Kissa Kursi Ka case is lodged in Tihar Jail after cancellation of his bail by Supreme Court. **6** — Reserve Bank of India sells 493 kgs. gold. **9** — Renhold Messner of Italy and Peter Hebeler of Austria scale Mt. Everest without the use of oxygen. **12** — SarkariaCommission finds Karunanidhi, former Chief Minister of Tamil Nadu, guilty of misusing power. **14** — Malujirao M. Naik Nimbalkar (82), progressive ruler of erstwhile Phaltan State, expires in Pune. **15** — Shah Commission reports that Mrs. Gandhi had declared State of Emergency in a desperate effort to continue in power despite a judicial verdict against her. **19** — Dakota crashes near Rai, Haryana and kills eight. **21** — Tukojirao Holkar III (88), former ruler of Indore, expires in Indore. **27** — Mahakavi P. Kunhiraman Nair (72), noted Malayalam poet, dies in Trivandrum. **28** — Nine bogies of the 328-Danapur Howrah fast passenger train derail and kill 10 passengers. **June 2** — Dr. P. K. Parija (87), botanist and educationist dies in Cuttack. **4** — Mrs. Ammu Swaminathan (84), a long time Parliamentarian, founder and President of All India Women's Organisation, dies in Madras. **6** — Prime Minister Desai, on a visit to Britain, regrets evidence of racial prejudice and violence against Indians settled in Britain. **10** — Sisir Gupta (49), former Indian Ambassador to Portugal and Vietnam, dies in New Delhi. **12** — Niren De (69), former Attorney General of India, dies in Stockholm. **26** — Border Security Force members scale Nun Peak. **30** — Charan Singh, Raj Narain and four other members of the Union Cabinet resign. **July 4** — The Patna High Court acquits

Anand Marg Chief P. R. Sarkar and his four followers of the charges of murder and criminal conspiracy. **10** — The body of Kishan Chand, former Lt. Governor of Delhi is recovered from a well at South Delhi. **11** — Six cases are filed in Delhi local courts to prosecute Mrs. Indira Gandhi, Sanjay Gandhi and others for their part in the emergency excesses. **19** — Lok Sabha repeals MISA; Lachchu Maharaj (77), eminent exponent of Kathak dance, dies in Lucknow. **24** — Floods in U.P. affected 5,350 villages, caused loss of life to 68 people and damaged property worth Rs. 92.00 million. **August 2** — P. R. Sarkar "Anand Murti" is released on bail from Patna Central jail. **15** — Kedarnathji (95), an eminent Gandhian and freedom fighter, dies in Bombay. **21** — Vinoo Mankad (61), famous cricketer, dies in Bombay. **26** — Shah Commission submits final report. **September 7** — Edatata Narayanan (70), editor of *Patriot,* dies in New Delhi. **10** — Delhi citizens are alerted against floods. **11** — Valerian Cardinal Gracias (78), Archbishop of Bombay dies. **13** — Army is called to evacuate flood-hit villagers in Delhi; Kun peak in the Ladakh Himalayas (7,087 metres) is scaled by nine-member W. German expedition. **26** — Ramakrishna Dalmia (85), well-known industrialist and philantropist dies in New Delhi. **30** — Mirza Mohammad Afzal Beg expelled from the primary membership of the National Conference in Srinagar. **October 1** — Minimum age for marriage is raised from 15 to 18 for females and 18 to 21 for males. **3** — Calcutta scientists claim birth of world's second Test Tube baby. **11** — School girl Rohini Khadilkar (15), becomes both Queen and King of the chequered board, checkmating Karnataka's Raghuraman in the All India Chess Tournament. **12** — Jamnadas Dwarkadas (89), a close associate of Mahatma Gandhi expires in Bombay. **22** — N. S. Phadke (84), Marathi novelist and short story writer, dies in Pune. **November 7** — Dr. Jivraj Mehta (91), former Chief Minister of Gujarat, dies in Vadodara; Mrs. Indira Gandhi is elected to the Lok Sabha from Chikmagalur. **9** — K. P. Kesava Menon (95), Chief Editor of *Mathrubhumi* dies in Kozhikode. **11**—Mizoram comes under President's rule. **19** — 78 killed in I.A.F. plane crash at Leh airport; Bedi loses his captaincy following India's defeat in the cricket series with Pakistan. **27** — Laxmibai Kelkar, founder and Chief of Rashtra Sevika Samithi, an all India women's organisation dies in Nagpur. **December 6** — The first test match between India and West Indies ends in a draw. **7** — 45th Amendment Bill is adopted by Lok Sabha. **19** — Mrs. Indira Gandhi is expelled from Lok Sabha for breach of privilege of the House and jailed. **20** — Two pro-Indira youths hijack Indian Airlines Boeing 737, carrying several ministers, which lands at Varanasi. **23** — Charan Singh addresses the mammoth rally organised by the Kisan Sammelan in Delhi. **26** — Mrs. Indira Gandhi is released from Tihar jail.

1979

January 1 — The year 1979, the International Year of the Child begins; excise duty on khandsari abolished. **2** — Sunil Gavaskar sets a world record as the first batsman to score centuries in each innings thrice in Test cricket. **3** — The Seventh International Film Festival held in Delhi. **5** — Rohini-200, first monsoon experimental rocket, launched from Thumba. **10** — C. R. Krishnaswamy (76), eldest son of Rajaji and former News Editor of *The Hindu*, dies in Madras. **12** — Kanpur TV centre commissioned. **13** — Mauli Chandra Sharma (78), an elder statesman and politician dies in N. Delhi. **16** — India wins the Madras Cricket Test against the West Indies. **17** — Dr. D. C. Pavate (80), former Governor of Punjab, dies in Bangalore. **19** — Pravin Joshi (45), Gujarati actor, playwright, director, dies in Bombay. **20** — Jnanpith Award given to S. H. Vatsyayan, Hindi poet and novelist. **24** — Charan Singh and Jagjivan Ram become Dy. Prime Ministers in Union Cabinet. **30**—Mrs. Indira Gandhi is expelled from Chickmagalur seat. **February 11** — The Cellular jail in Andaman and Nicobar declared a national memorial. **12** — The External Affairs Minister, Atal Behari Vajpayee, visits China, cuts short the visit and returns to Delhi after Chinese invasion of Vietnam. **27** — Sanjay Gandhi and the former Information and Broadcasting Minister V. C. Shukla, sentenced to two years in jail for the destruction of the film "Kissa Kursi Ka". **28** — Charan Singh presents rural oriented Union budget. **March 1** — Admiral R. L. Pereira appointed the new Chief of Naval Staff; Sukhdev (46), well-known film maker, dies in N. Delhi; Jairamdas Daulatram (89), former Governor of Assam and a Rajya Sabha member, dies in N. Delhi. **7** — R. K. Khadilkar, former Union Minister, dies in Pune. **9** — Soviet Premier Alexei Kosygin arrives in India. **12** — Avalanche kills 240 people in Lahaul Valley. **14** — A long-term co-operation agreement in scientific, industrial and technical spheres, signed between Indian and USSR governments, in N. Delhi. **15** — The Grover Commission indicts the Karnataka Chief Minister Devraj Urs, and some cabinet colleagues on several counts; Col. B. N. Kaul, a noted commentator on military affairs, dies in Pondicherry. **28** — Gopikisan Piramal, well-known industrialist and philanthropist, dies in New York. **30** — Jawahar Nagar petro-chemical complex dedicated. **April 6** — Dr. V. Raghavan (71), eminent indologist and scholar, passes away in Madras; India and USSR sign rice for crude oil barter agreement. **11** — Communal riots break out in Jamshedpur, 120 killed; Jullunder TV Centre inaugurated; Ramanatha Sethupathy (43), former Rajah of Ramanathapuram, dies in Madurai. **13** — The quincentenary birth celebration of Guru Amar Das, third guru of the Sikhs, starts. **16** — Mrs. Indira Gandhi, R. K. Dhawan and D. Sen charge-sheeted for instituting false cases against four officers investigating Maruti deals. **18** — Sarkar Commission on industrial houses wound up. **22** — Acharya Vinoba Bhave begins fast for total cow slaughter ban; ends fast on April 26 on assurances of Constitution amendment for a national ban on cow slaughter. **29** — Raja Mahendra Pratap (93), freedom fighter and revolutionary, dies in N. Delhi. **30** — 44th Constitution amendment, undoing the emergency changes in statute, gets Presidential assent; corruption charges against Morarji Desai and Charan Singh families referred to Justice Vaidyalingam for appraisal; T. S. Srinivasan (57), a leading industrialist, dies in Madras. **May 1** — K. P. S. Menon awarded Lenin Prize; S. D. Punekar (63), a noted labour economist, dies in Bombay. **9** — At least 30 persons were killed when a tourist bus and Jayanti Janata Express crashed into each other, near Akaparambu. **12** — Cyclone hits coastal Andhra Pradesh—widespread damage to life and property. **19** — Panki field gun factory begins production. **20** — Special Courts set up to try Mrs. Indira Gandhi and others accused of emergency excesses. **22** — Mrs. Janakidevi Bajaj (87), widow of late Jamnalal Bajaj, dies in Wardha. **25** — Twenty-five persons believed killed and nearly 100 injured when the Army and Central Industrial Security Force clashed at Bokaro. **29** — A. K. Nadiadwala, noted film producer, dies in Bombay; Dr. T. M. A. Pai (81), founder of modern Manipal, dies in Manipal. **31** — The Gupta Commission indicts Sanjay Gandhi and others on irregular Maruti deals. **June 1** — In an open confrontation between army and policemen on the outskirts of Gandhinagar, seven policemen were injured; India and Angola decide on diplomatic ties. **3** — India finishes fourth at Asian track and field meet in Tokyo; the Soviets launch India's second satellite *'Bhaskara'*. **5** — K. Ranghuramiah (67), Member of Parliament and a former Central Cabinet Minister, dies in N. Delhi. **7**—An I.A.F. Avro crashes near Leh, killing 17. **9** — Dr. S. Ramanujan (76), well-known agricultural scientist dies in Bangalore. **11** — Morarji Desai in Moscow, Warsaw (14), Prague (16), and Belgrade (18). **12** — Cases filed in special courts against Mrs. Gandhi, V. C. Shukla and others for harassment of officials investigating Maruti deals and for using government artists to design election posters. **13** — Jeep scandal case against Mrs. Gandhi and others filed in special courts. **23** — Raj Narain resigns from the Janata party; Devaraj Urs, expelled from the Congress (I), forms Karnataka Congress. **27** — Arvind Kilachand (54), a well-known industrialist, dies in Dusseldorf. **28** — Joachim Alva (73), a former Member of Parliament and a veteran journalist, dies in N. Delhi. **July 6** — Prof. M. S. Thacker (75), former Dy. Chairman of the Planning Commission, dies in Bombay. **7** — Ramesh Krishnan wins Wimbledon junior boys title. **10** — Congress Party emerges as the main opposition party in the Lok Sabha; Raj Narain emerges as the leader of a new group called

Janata (S). **11** — The Congress tables no-confidence motion against the Janata Government. **15** — Morarji Desai resigns as Prime Minister. **16** — Charan Singh resigns from government to head the new Janata (S) Party launched by Raj Narain; Bhagwandas Goenka, Director of the Indian Express Group of Newspapers, dies in Bombay. **20**—M. V. *Kairali* disappeared without trace in the Gulf waters. Hijacking suspected. Crew of 51 missing. **23** — Floods in Rajasthan, about 113 persons dead. **27** — Morarji Desai steps down as leader of Janata Parliamentary Party making way for Jagjivan Ram, who becomes the Opposition leader of the 205-strong Janata Party in 544 member Lok Sabha. **28** — A nine-member coalition government headed by Charan Singh is formed in the Centre. **30** — Veteran Akali leader, Mohan Singh Tur (64), dies in Chandigarh. **August 2** — Mrs. Indira Gandhi gets bail in jeep scandal case; Dr. Rajnikant Arole and Mrs. Mabelle Arole win Raman Magsaysay award for community leadership. **4** — An Indian Airlines Avro crashed into a hillside on a flight from Pune to Bombay; all 45 on board perished. **10** — Satellite launch vehicle fails to put 40 kgs. payload into earth's orbit. **12** — Dam burst floods Morvi and Lilapur in Gujarat. Over 1,400 reported dead; A. V. M. Meiyappa Chettiar (72), prominent film producer, dies in Madras. **16** — Noted Marathi writer, D. R. Kavathekar (79), dies in Pune. **18** — V. P. Naik (66), former Chief Minister of Maharashtra, dies in Singapore. **20** — Mrs. Indira Gandhi withdraws support to the Charan Singh government; Charan Singh's 24-day-old govt. resigns. **21** — The President dissolves Parliament, orders year-end general elections and asks Charan Singh to head a care-taker government. **24**—Dr. J. C. Bannerjee (78), an eminent cardiologist, dies of a heart attack in Calcutta. **27-28** — Communal riots in Jamshedpur, 10 persons died and about 50 injured. **30** — Occupational therapist Mrs. Kamala Nimkar (79), dies in Pune. **31** — M. Hidayatullah sworn in as Vice-President of India. **September 6** — P. K. Mookiah Thevar (54), M.L.A. and Chairman, All India Forward Bloc, dies at Royapettah. **7** — Sunil Gavaskar hit 221, in his 20th test century, a world record for opening batsman. **12** — Devaraj Urs became the new pre-split All India Congress President at 2-day deliberations at Bangalore. **14** — Dev Anand supported by filmland formed National Party. **19** — Nepal's King Birendra and Queen Aishwarya arrive in India on a 5-day state visit. **20** — Sunil Gavaskar crosses 5000 runs in tests playing at Bangalore against Australia. **21** — Nizam jewellery declared national treasure, and its auction cancelled; a devastating fire paralyses the Bombay Airport for several days and kills a family of three. **22** — Prakash Padukone beats world badminton champion Denmark's Hansen in London. **26** — The Lok Dal formed with Charan Singh as President and Raj Narain as Working Committee President. **30** — P. A. Chacko (79), one of the founder leaders of Communist Movement in Kerala dies in Kottayam. **October 1** — Dr. P. V. Rajamannar (79), an eminent jurist and former Chief Justice of Madras High Court, dies in Madras. **2** — Riots break out at Rajghat after Raj Narain and students clash over purification ceremony of the Samadhi. **6** — Mahamahopadhyaya Datto Waman Potdar (89), veteran historian, passes away in Pune. **8**—Sarvodaya leader Jayaprakash Narayan passes away. **12**—Egypt suspends air services with India. **12-16**—Riots in Ahmedabad city, one dead. **14**—Janata Parishad gets majority in Sikkim elections. **17** — Mother Teresa awarded Nobel Prize for Peace. **18** — N. B. Bhandari ministry in Sikkim sworn in at the end of 2-month President's rule. **21** — Dr. Telo Mascarenhas (77), veteran freedom fighter of Goa dies at his Kamburlin residence near Panjim. **25** — Nainar Das, President of the unrecognised T. Nadu Police Subordinate Association, called off the 10-day old strike by policemen. **26** — One day 'Bharat Bandh' organised by the All India Sales Tax Abolition Committee; Prof. C. N. Vakil (83), a noted economist, dies in Bombay. **28** — Miss Maniben Kara (74), a veteran trade union leader, dies in Bombay. **November 5** — Noted classical singer Mrs. Durgabai Shirodkar, dies in Pune. **10** — Tenneti Vishwanathan (86), the veteran freedom-fighter and Janata Party leader, dies in Vishakapatnam. **10-Dec. 9**—The First International Trade Fair in Delhi. **13**—Productivity linked bonus to railmen announced; Nelson Mandelia of S. Africa awarded Nehru Award for 1979. **15** — Indian Airlines fare hike comes into effect. **16** — Samarendra Chandra Sen (57), a noted barrister dies in Calcutta. **18** — Leading industrialist Sir Padampat Singhania (75), dies at his residence in Kanpur. **19** — Vachaspat Pathak, a noted Hindi critic, poet and story-writer, dies in Allahabad. **21** — C.F.D. merged in Cong. (I). **22** — Mrs. Sheelavati Ketkar (92), well-known sociologist, dies in Bombay. **23** — K. Brahmananda Reddy quits the Congress (U) and resigns from the care-taker government as Industry Minister. **24** — R. Bhuwalka (83), an industrialist and former Rajya Sabha member, dies in Calcutta. **27** — S. A. Dange resigns the Chairmanship of Communist Party of India. **30** — Kerala Assembly dissolved. **December 2** — Eminent Gujarati writer, Kishansinh Chavada (70), passes away at Vadodara. **3** — Twenty-five killed and 50 injured in a rail accident on South Central Railway. **3-4**—Assam State paralysed following a 34-hour long 'bandh' demanding deletion of foreign names from the electoral rolls. **4**—Dhyan Chand, the Hockey wizard, passes away in N. Delhi; 23rd General Conference of the International Atomic Energy Agency opens in N. Delhi. **6-7** — Violence in Nagpur over renaming of Marathwada University. 7 Bhogilal Laherchand (96), a prominent industrialist expires in Bombay. **7-16** — The First International Children's Film Festival held in Bombay. **12**—Babubhai Vaidya (70), founder editor of the *Saurashtra Daily*, and a former M.L.A. from Gujarat, dies in Bombay. 18 — Well-known Urdu writer, Razia Sajjad Zaheer (62), passes away at New Delhi; reputed artist, M. R. Acharekar dies in N. Delhi. **20** — India defeated Pakistan in the 3rd Cricket Test in Bombay; Delhi High Court quashes the prosecution of Mrs. Indira Gandhi and P. K. Mukherjee for their refusal to depose before the Shah Commission. **21** — N. R. Phatak, noted historian, dies in Bombay. **23**—K.K. Khadilkar (64), a prominent trade union leader, and a leading member of the Praja Socialist Party, dies in Bombay. **29** — Jeevanrao Yalagi (86), a freedom fighter and a close associate of Bal Gangadhar Tilak, dies at Belgaum.

1980

January 4—Filmotsav '80 begins in New Delhi; James S. Raj, well-known economist, dies at Thanjavur. **6**—7th General Election polling concludes; Dilip Kumar Roy, noted poet, composer, singer and author of 70 books dies in Bombay. **9**—Congress (I) wins two-thirds majority in Lok Sabha. **10**—Mrs. Indira Gandhi elected leader of C.P.P. (I); President invites Mrs. Indira Gandhi to form new Government. **11**—U.N. Secretary General Kurt Waldheim arrives in New Delhi on four-day visit. **14**—Mrs. Indira Gandhi sworn in as Prime Minister. **15**—Union Cabinet decides to extend reservation of seats for scheduled castes and tribes in Lok Sabha and Assemblies for 10 years. **16**—Maruti case, Special Court, Delhi drops proceedings against Mrs. Gandhi and her aides. **19**—Jagjivan Ram elected leader of Janata Parliamentary Party. **20**—Sadiq Ali inaugurates first international and 34th national dental conference in Bombay. **21**—Industrialisation of third world countries, conference under the auspices of U.N.I.D.O. begins in New Delhi; 500-member new Lok Sabha sworn in. **22**—President Ziaur Rehman of Bangladesh returns after talks on river waters and border problems with Mrs. Gandhi. **23**—Balram Jakhar elected Lok Sabha speaker. **24**—Bharat Ratna and other national awards revived; President confers Bharat Ratna on Mother Teresa; Barendranath Basu, novelist dies in Calcutta. **25**—French President Valery Giscard d' Estaing arrives in New Delhi. **28**—India and France sign four protocols for co-operation in various fields; Indian newspaper industry celebrates 200th anniversary. **29**—Australian Chancellor Bruno Kreisky arrives in New Delhi; for the first time Rajya Sabha adopts an opposition amendment to the motion of thanks to the Presidential address. **February 2:** —Dr. Manmohan Sen, noted quinologist, dies in Calcutta. **3**—S. A. Dange quits as Communist Party of India chief. **8**—Rudra Hanji, noted sculptor and recipient of the national fellowship of the Lalit Kala Akademi, dies in Gwalior. **9**—U.N.I.D.O. conference on industrialisation of third world countries ends. **10**—Prof. K. B. L. Mathur, eminent scientist, dies in New Delhi. **11**—Dr. Ramesh Chandra Majumdar, noted historian, dies in Calcutta. **14**—Justice M. S. Joshi holds creation of special courts as illegal and void. **17**—Centre dissolves Assemblies of nine States; Prankishore Goswami, noted Sanskrit scholar dies in Calcutta. **20**—Pandit Vishunkant Jha, renowned Sanskrit scholar dies in Patna. **22**—President Neelam Sanjiva Reddy hails visit of King Jigme Singye Wangchuk of Bhutan. **25**—Third World Congress of paediatric surgery ends, Dr. R. K. Gandhi elected president; Smt. Girijabai Mahadeo Kelkar, noted authoress and first woman playwright in Maharashtra dies in Pune. **March 4**—Chinese Ambassador Shen Jian presents credentials to President. **5**—King and Queen of Nepal arrive in New Delhi. **9**—Subodh Ghosh, noted Bengali novelist and journalist, dies in Calcutta. **10**—Commander K. P. Godrej, one of the founder members of Lions movement in India, dies in Pune. **11**—C. B. Gupta dies in New Delhi. **14**—Badminton player Prakash Padukone wins Swedish open title. **16**—Neville D'Souza, former Olympian soccer star, dies in Bombay; Pannalal Tripathi, well-known Hindi Litterateur, dies in Madras. **21**—Delhi Metropolitan Council dissolved; Prof. M. Mariappa Bhat, noted Kannada scholar, dies in Madras. **23**—Prakash Padukone becomes the first Indian to win All-England Badminton Championship. **24**—Agitation on foreigners' issue, Chhatra Parishad organises economic blockade of Assam; Maulana Syed Ibne Hassan Naunehravi, eminent Shia scholar, dies in Lucknow. **26**—India accords full diplomatic status to Palestinian Liberation Organisation; All-Assam Students' Union and All-Assam Gana Sangram Parishad resume agitation on foreigners' issue. **27**—Centre orders winding up of two special courts. **28**—Yasser Arafat, Chairman of Palestinian Liberation Organisation arrives in New Delhi on three-day visit. **31**—President Mobutu of Zaire arrives in New Delhi. **April 6**—Bharatiya Janata Party is formed with A. B. Vajpayee as president. **8**—Jagjivan Ram joins Congress (U). **14**—Mrs. Indira Gandhi escapes knife attack, R. D. Lalwani held. **15**—Six commercial banks nationalised. **22**—Mass picketing in Assam begins. **24**—Nirankari Chief Baba Gurbachan Singh shot dead in Punjab. **26**—Assamese poet Birendra Kumar wins 1979 Jnanpith award. **May 4**—Anant Kanekar, noted Marathi writer, dies in Bombay. **9**—Supreme Court upholds validity of death sentence. **15**—I.N.S. Godavari, first Indian-designed frigate launched at Mazagon Docks in Bombay. **19**—India's High Commissioner Gen. T. N. Raina dies in Ottawa. **26**—More oil found in a new sector off Bombay High. **June 4**—Congress (I) back in power in eight States; A.I.A.D.M.K. back in Tamil Nadu. **7**—Centre hikes prices of all petroleum products. **10**—Lok Sabha approves resolution to extend President's rule in Assam for another six months. **13**—Sanjay Gandhi appointed General Secretary of Congress (I). **23**—Sanjay Gandhi dies in aircrash in New Delhi. **24**—Indian Airlines raises fares; V. V. Giri, former President dies in Madras. **26**—Oil and gas found in Bay of Bengal by O.N.G.C. **July 7**—Godavari waters dispute ends; India recognises Kampuchea. **12**—Congress (I) gets absolute majority in Rajya Sabha. **18**—SLV-3 Rohini I, second experimental satellite launched from Sriharikota. **24**—Uttam Kumar, matinee idol, dies in Calcutta. **29**—India regains Olympic Hockey title; Sadiq Ali inaugurates Premchand birth centenary celebrations in Bombay. **30**—Gopal Ghose, noted artist and painter, dies in Calcutta. **31**—Mohammad Rafi, singer, dies in Bombay. **August 1**—Ramkinker Baiz, outstanding sculptor and distinguished painter, dies in Calcutta. **12**—Allahabad High Court dismisses election petition against Mrs. Indira Gandhi. **13**—Purushottam Bhaskar Bhave, a towering personality in Marathi literature, dies in Bombay. **15**—Violence in Moradabad spreads. **18**—Debabrata Biswas, an eminent exponent of Rabindra Sangeet, dies in Calcutta. **22**—Kishore Sahu, veteran film-maker dies in Bangkok. **24**—Earthquake in Billowar and Bani tehsils of Jammu, 16 persons killed. **28**—Shibaram Chakrabarty, noted Bengali litterateur, dies in Calcutta. **29**—Mahakavi Vennikulam Gopala Kurup, author of several books, dies in Trivandrum. **September 4**—Commonwealth heads of Government conference begins in New Delhi. **5**—V. C. Shukla's election to Lok Sabha set aside by Madhya Pradesh High Court. **9**—D. N. Shikhare, prominent writer and journalist, dies in Pune. **11**—President Kenneth Kaunda of Zambia arrives in Bombay on six-day India visit. **22**—National Security Ordinance promulgated. **23**—Criminal Procedure Code Ordinance promulgated. **October 9**—Fire destroys Jammu & Kashmir Assembly Hall in Srinagar. **14**—Centre takes over Maruti Ltd. **18**—Himalayan Motor Rally flags off from Bombay. **24**—Shekhar Mehta of Kenya wins first Himalayan Motor Rally. **25**—Kamlapati Tripathi resigns as Railway Minister. **26**—Sahir Ludhianvi, noted poet and lyricist dies in Bombay. **November 3**—O. P. Mehra appointed Governor of Maharashtra. **6**—National Integration Council reconstituted. **22**—National convention on civil liberties begins in New Delhi to launch a new All India Organisation for the defence and promotion of civil liberties in India. **24**—Prince of Wales arrives in New Delhi. **26**—Mass blinding cases of criminals in Bhagalpur unearthed. **28**—Guru Chengannur Raman Pillai, one of the greatest exponents of Kathakali, dies in Kottayam; Birendra Nath Sircar, doyen of film making industry, dies in Calcutta. **30**—Blinding of undertrials in Bhagalpur Central jail, 15 police officials suspended. **December 1**—Kengal Hanumanthaiah, former Chief Minister of erstwhile Mysore State and Union Railway Minister, dies in Bangalore; President Suharto of Indonesia arrives in New Delhi on four-day visit; Rasta Roko agitation, 9,000 farmers held in Maharashtra. **6**—President's rule in Assam revoked, Mrs. Anwara Taimur takes over as Chief Minister; M. G. Ramachandran escapes knife attack near Tirunelveli. **8**—President Leonid Brezhnev of Soviet Union arrives in New Delhi on three-day visit. **13**—S. G. Venkataraman, prominent theosophical leader, dies in Madras.

1981

January 1: This year (1981) marked by the U.N. as the International Year of Disabled Persons (I.Y.D.P.), begins; **4:** Sadiq Ali inaugurates fifth World Tamil Conference in Madurai; **5:** India formally launches International Year of Disabled Persons; **13:** Prof. M. Venkatarangiah (92), noted Telugu scholar, educationist and author, dies in Hyderabad; **16:** Devanaya Pavnar (79), noted philologist, dies in Madurai; **25:** Mexican President Jose Lopez Portillo arrives in New Delhi; **29:** Assam employees of Oil India decide to end non-co-operation movement and flow of oil begins from Assam to Barauni.

February 2: Bhabha Atomic Research Centre, Trombay, develops the first fully indigenous nuclear reactor vessel *Calandri*; **3:** The Supreme Court orders *status quo* to be restored in the transfer of the Chief Justices of Patna and Madras High Courts; **9:** Mohammed Currim Chagla (81), eminent jurist and crusader of civil rights and liberties, dies in Bombay; A four-day conference of non-aligned foreign ministers opens in New Delhi; St. Lucia is admitted as full member; The 1981 census begins; R. Gundu Rao inaugurates Mahamastakabhisheka celebrations at Shravanabelagola; **11:** Rabindra Dharmaraj (33), talented film maker, dies in Bombay; **12:** Sistu Srirama Sastri (72), noted Veena vidwan, dies in Rajahmundry; Triple train disaster near Vaniyambadi in Tamil Nadu, 23 persons killed; **18:** Eddi Billimoria, well-known actor of the silent and talkie film era, dies in Bombay; **23:** President Daniel Arap Moi of Kenya arrives in New Delhi; **28:** Manipur comes under President's rule.

March 8: Oil struck in Kharsang area in Arunachal Pradesh; **29:** Prime Minister Mrs. Indira Gandhi lays the foundation-stone of Asia's largest aluminium complex in Orissa.

April 2: R.K. Nehru (78), former secretary-general for external affairs, dies in Allahabad; Prof. Shanker Dev Vidyalankar (74), prominent Gujarati and Hindi writer, dies in Bombay; **4:** Ustad Sharda Prasad (57), noted exponent of Mughal paintings, dies in Varanasi; **5:** V. Shankar (71), I.C.S. and Private Secretary to Sardar Patel, dies in New Delhi; **6:** Assam agitation, E.S. Parthasarathy, Commissioner of Upper Assam, killed by explosive device; **15:** Mrs. Margaret Thatcher, Prime Minister of Britain, arrives in New Delhi; Uranium deposits found in Karnataka, U.P., Madhya Pradesh and Himachal Pradesh; **17:** Over 100 people killed in tornado in Orissa; **19:** B. Malik (87), former chief justice of

Allahabad High Court and former vice-chancellor of Calcutta University, dies in Allahabad; Mankulam Vishnu Namboodiri (73), noted exponent of Kathakali, dies in Trivandrum; **24:** Suburban trains collide at Raoli Junction, Bombay, killing 23 persons; **27:** Amir of Bahrain, Shaikh Isa Bin Salman Al Khalifa, arrives in New Delhi.

May 2: Dr. Yashwant Singh Parmar, former Himachal Pradesh Chief Minister, dies in Simla; **3:** Mrs. Nargis Dutt (52), "Queen of the Indian Screen" and member of Rajya Sabha, dies in Bombay; **9:** Pandit Sundar Lal (95), noted freedom fighter and historian, dies in New Delhi; Justice Phani Bhushan Chakraborty (83), first Indian Chief Justice of Calcutta High Court, dies in Calcutta; Dr. (Mrs.) Durgabai Deshmukh (72), veteran freedom fighter and noted social worker, dies in Hyderabad; Vinayak Madhav Dixit Patwardhan (73), well-known educationist and Marathi author, dies at Nasik; **21:** Robert Mugabe, Prime Minister of Zimbabwe, arrives in New Delhi; **25:** A. Subbiah (84), a well-known Tamil scholar and founder-secretary of the International Association of Tamil Research, dies in Madras; **26:** Y.B. Chavan severs relations with Cong. (U) Party; **30:** Palghat Mani Iyer (70), the mridangam wizard, dies in Cochin; **31:** Rohini RS-D1 satellite goes into orbit.

June 6: Samastipur-Banmakhi passenger train falls into the Bagmati river, killing 200 persons; **7:** S.K. Pottekkat gets Jnanpith Literary Award for 1980; **9:** Rohini II satellite burns up in space; **12:** Dr. P.B. Gajendragadkar (80), former Chief Justice of India, dies in Bombay; **19:** APPLE, India's first geo-stationary experimental communication satellite, launched from Kourou in French Guyana; **24:** S.K. Patil (81), former Union Minister and top leader of the undivided Congress, dies in Bombay; **26:** Chinese foreign minister, Mr. Hua, arrives in New Delhi; **28:** China agrees to open Mansarover and Kailash to Indian pilgrims; **29:** D.B. Mokashi (66), Marathi novelist, dies in Pune; **30:** Assam placed under President's rule.

July 7: Liquor tragedy in Bangalore, 123 persons killed; **9:** Art silk mill situated on Udhna-Madgalla Road in Surat collapses, many killed; 16: Indore-Bilaspur fast passenger train collides with goods train near Calcutta, killing 38 persons; **18:** H.N. Bahuguna, Raj Narain and Banarsi Das decide to form new party called Democratic Socialist Party; **22:** APPLE starts relaying television programmes; **23:** The Chief Election Commissioner recognises Congress (I) as the Indian National Congress and derecognises Congress (U) as a national party; **30:** T.P. Kuppiah Pillai (95), noted Bharata Natyam vidwan, dies in Bombay.

August 5: Jagjivan Ram and supporters leave Congress (U) to form own Congress; **8:** Rajasthan Governor Raghukul Tilak sacked; **11:** Rajasthan Government scraps total prohibition and revives old Excise Act; **25:** Sharad Pawar elected provisional President of Congress (U); **27:** Baban Prabhu (52), noted comedian, director and writer of farcical Marathi dramas, dies in Bombay; **29:** Supreme Court decides that air hostesses can work up to the age of 45 years; **30:** India wins first women's Asian Hockey Championship in Kyoto; Dr. J.P. Naik (75), educationist of international repute, dies in Pune; Dr. Nihar Ranjan Ray (78), eminent historian and art critic, dies in Calcutta.

September 3: India refuses to accept appointment of American diplomat, George G.B. Griffin as Political Counsellor in U.S. Embassy; **13:** Dr. S.R. Palit (70), noted scientist and former professor at Indian Association of Cultivation of Science, dies in Calcutta; Som Sundaram (64), noted writer dies in Moscow; **17:** Dr. Trimbak Govind Mainkar (65), noted Indologist, Sanskrit scholar and director of Bhandarkar Oriental Research Institute, dies in Pune; **20:** Sant Jarnail Singh Bhindranwale surrenders and violence erupts in Amritsar; Kshitish Chandra Sarkar (87), noted historian, dies in Calcutta; **21:** President O.K.J. Masire of Botswana arrives in New Delhi; **23:** Mrs. Indira Gandhi leaves Delhi to visit South-East Asian countries and Australia; **24:** Randhir Singh Gentle (60), India's ace hockey player dies in Bombay; **25:** Oil found in off-shore Cauvery basin; **29:** An Indian Airlines Boeing 737 hijacked to Lahore.

October 5: Gas found on eastern outskirts of Agartala; Bhagwat Charan Varma (78), veteran litterateur and a nominated member of Rajya Sabha, dies in New Delhi; **11:** Prakash Padukone wins World Cup Badminton Championship; Prof. A.B. Shah (61), founder-president of Indian Secular Society and pioneer of rationalist movement in India, dies in Pune; **17:** Kannadasan (55), poet laureate of Tamil Nadu, dies in Chicago; **18:** Congress (I) high command decides not to accept A.R. Antulay's resignation; **20:** Left front government of Mr. Nayanar in Kerala falls; **21:** Kerala comes under President's rule; **23:** Prof. A.A.A. Fyzee (82), renowned orientalist and scholar, dies in Bombay; **26:** Dr. D.R. Bendre (86), renowned Kannada poet, dies in Bombay; **28:** Dr. Shankar Shesh (48), well-known Hindi playwright, dies in Srinagar; **29:** Dinkar Shivram alias Dada Salvi (78), eminent character actor of Marathi screen dies in Pune.

November 2: Toposcatter communication link between India and the Soviet Union inaugurated; severe cyclonic storm in Ahmedabad, cargo ships and small boats sunk; **6:** His Holiness Gyalwa Karunapa, Buddhist spiritual leader, dies in Chicago; **7:** Supreme Court stays all executions; **10:** International Monetary Fund (IMF) approves a loan of dollar five billion special drawing rights; **14:** Indian International Trade Fair, 1981 begins in New Delhi; **15:** Mrs. Kamalabai Hospet (85), noted social worker dies in Nagpur; **20:** Bhaskara II satellite goes into orbit; **21:** Gurucharan Singh Tohra elected president of Shiromani Gurdwara Prabandhak Committee; **22:** Y.B. Chavan admitted to Congress (I); Padma Shri Pandit Rev. Shanker Trivedi (97), renowned scholar of "Sama Veda" dies in Padadhari; **23:** India expels three Pakistan embassy employees; **24:** Pakistan expels four Indian embassy employees in retaliation; **25:** Dr. M.S. Swaminathan elected as F.A.O. President.

December 1: *Lokrajya,* the first government-run daily of Maharashtra, launched in Nagpur; **3:** President N. Sanjiva Reddy leaves New Delhi on eight-day state visit of Indonesia and Nepal; **4:** Stampede in spiral staircase of Qutab Minar, 30 persons killed; J.D. Gondhalekar (72), renowned painter and former director of the J.J. School of Arts, dies in Bombay; **11:** Prabhakara Umamaheshwara Pandit (92), renowned Sanskrit scholar dies in Vijayawada; **12:** Prof. Rameshwar Jha (78), eminent Sanskrit scholar and President's award-winner, dies in Varanasi; **14:** Kotama colliery mishap, 33 persons killed; **15:** S.G. Hulyalkar (69), an educationist and former principal of Sir Parshurambhan College, dies at Pune; **16:** Gulshan Rai and his wife Ujwalla and Parshuram Patil as tindal complete their cruise in a 9.3-metre Dolphin fibreglass yatch *Jaykus II* from Southampton (U.K.) to Bombay; **18:** President's rule in Assam extended; **26:** Union cabinet revokes President's rule in Kerala; **28:** K. Karunakaran sworn in as Chief Minister of Kerala; **30:** Supreme Court, by a four to three majority, upholds the validity of the transfer of judges; K.E. Mathai (56), alias Parappuram, renowned novelist and Sahithya Pravartha Cooperative Society (SPCS) President, dies at Mavelikkara (Alleppey District); **31:** Inter-State dispute on the sharing of Ravi and Beas waters between Punjab, Haryana and Rajasthan is resolved.

EVENTS—1983

INDIAN

January 3: Ninth International Film Festival of India (IFFI) opens in New Delhi; **6:** Congress (I) ousted in Andhra Pradesh and Karnataka assembly elections; **7:** Indo-Bangla accord on sharing of Ganga waters during dry season for two years signed; Karnataka C.M. Gundu Rao resigns; **9:** N. T. Rama Rao sworn in as New C.M. of Andhra Pradesh; **10:** Ramakrishna Hegde sworn in as new C.M. of Karnataka; The Aga Khan arrives in Bombay with the Begum on a 10-day visit to India; **11:** Nripen Chakraborthy sworn in as C.M. of Tripura; **18:** Bombay textile strike completes one year; **26:** Acharya Vinobha Bhave awarded Bharat Ratna posthumously; **27:** All members of the Union council of ministers resign for a reconstitution of cabinet after the Cong. (I) poll reverses in Andhra Pradesh and Karnataka; Akali M.P.s and M.L.A.s of Punjab resign over demands; all four AICC (I) general secretaries resign to facilitate reconstitution of team: the Lok Dal merges with Janata Party; **29:** Seven new ministers join the reconstituted Central cabinet.

February 1: India and China reach accord on expansion of trade, economic, scientific and cultural exchanges; Central Excise Act, 1944 extended to Sikkim; **2:** Vasantrao Patil sworn in as new C.M. of Maharashtra; Rajiv Gandhi and C. M. Stephen appointed AICC (I) general secretaries; **5:** Kapil Dev chosen leader of Indian cricket team to visit West Indies; **6 :** Gas struck in Jaisalmer district of Rajasthan; **7 :** A.B. Vajpayee resigns from the presidentship of Bharatiya Janata Party after his party's defeat in the Delhi elections; **12 :** Phoolan Devi, woman dacoit, surrenders at Bhind; **14 :** Assam polls begin amidst violent clashes and arson; **16 ;** First oil find by ONGC in the Krishna-Godavari basin; **18 :** Communal carnage at Nelli, thousands killed; **27 :** Hiteshwar prasad Saikia sworn in as C.M. of Assam

March 2: B. B. Lyngdoh sworn in as C.M. of Meghalaya; **7:** Seventh non-aligned movement summit (NAM) opens in New Delhi; India chosen leader; **12:** NAM summit concludes; **14:** Industries (development and regulation) Act extended to Sikkim; **20:** Non-Congress (I) chief ministers of Tamil Nadu, Andhra Pradesh, Karnataka, and Pondicherry hold meeting, decide to form council to demand more power from Centre; sponge iron plant at Orissa commissioned; **21:** India and Nepal agree to extend trade treaty; **23:** India and France sign treaty on supply of enriched uranium for Tarapur atomic plant; **24:** The Prime Minister, Mrs. Indira Gandhi, announces setting up of a commission to study centre-state relations; A.P.L.A. passes resolution abolishing Legislative Council.

April 1: Oil struck off Bombay High; **2:** Mrs. Maneka Gandhi launches her political party—Rashtriya Sanjay Manch; **4:** Dr. N. P. Seshadri honoured with 'Asia' award by the Asian Centre for Music and Dance; Dr. M. S. Swaminathan awarded the Third World Prize for 1982 by the Third World Foundation for Social and Economic studies; **6:** P. V. Narasimha Rao conferred with the highest honour of Argentina—the Order of St. Martin; **8:** Vir Bhadra Singh sworn in as C.M. of Himachal Pradesh; **10:** Centre sets up 41-member national water resources council; Mother Teresa honoured with 'Order of Australia', the second highest award; **13:** 22 die as freak storm, with characteristics of a tornado, hits West Bengal; **17:** Rohini Satellite put into orbit from Sriharikota launching pad; **19:** Andhra Pradesh and Tamil Nadu sign agreement on Krishna waters for Madras city; Centre decides to grant scheduled tribe status to the people of Ladakh; first successful bone marrow transplant carried out in India at the Tata Memorial Hospital in Bombay.

May 1: Noted Hindi litterateur, Sachidananda Hirananda Vatsyayan is recipient of Yugoslav poetry award 'Golden Wreath' for 1983; **6:** First consignment of the enriched uranium fuel arrives for Tarapur atomic power plant from France; M. J. Singh selected to head the prestigious printing and publication division of UNESCO in Paris. **7:** Madhur Jaffery named radio and television "personality of the year" in Britain; Rekha Hande, 21-year old beauty from Bangalore, wins Miss India title; "Ananda" award, instituted by Ananda Bazar Patrika group of publications, conferred on Ananda Shankar Roy and Subhas Mukhopadhyaya for 1983; **11:** I. V. Arkhipov, first deputy prime minister of U.S.S.R. arrives in New Delhi on a four-day visit; **23:** First Indian electric typewriter released in the market by Hindustan Teleprinters, Ltd.; **25:** Telugu-Ganga project, to supply drinking water to Madras, inaugurated by Mrs. Indira Gandhi.

June 7: PLO Leader Yasser Arafat visits New Delhi; **8:** S. K. Mukerjee elected Vice-chairman of natural resources panel at U.N.; **10:** First secretary of North Korean embassy in New Delhi expelled on charges of smuggling contraband; **12:** Farooq Abdullah sworn in as C.M. of Jammu & Kashmir; **18:** Morarji Desai files suit in Chicago court against Seymour Hersh for defamation; **24:** Pondicherry comes under President's rule; Indo-Philippines trade protocol signed in Manila; **25:** India wins Prudential Cup for World Championship in cricket; **29:** U.S. Secy. of State arrives in New Delhi on a four-day visit.

July 10: The Commonwealth Secy.—Gen. Shridath Ramphal arrives in New Delhi on a week-long visit; **11:** New consulate office of the Democratic Republic of Madagascar opened in Bombay; **15:** Cloud-seeding bid in Tamil Nadu declared successful; **16:** Punjab and Himachal Pradesh sign agreements on settling the canal dispute and joint ventures in Hydel Projects in H.P.; **21:** A. K. Ramanujam receives grant from the prestigious John D. and Catherine T. Macarthur Foundation; **22:** Much debated Bihar Press Bill withdrawn; **23:** P. M. commissions Kalpakkam power plant.

August 2: South Asian foreign ministers meeting held in New Delhi; **6:** Prof. K. M. Chandy sworn in as new governor of Gujarat; Dr. Raja Ramanna appointed chairman of the Atomic Energy Commission; **13:** Prof. T. V. Ramanujam conferred "Viswa Sanskriti Unnayan Ratna" by the Viswa Unnayan Ratna for his many-sided contribution to our cultural life; **14:** Chandrashekhar Singh sworn in as new Bihar C.M.; **19:** Bijoy Jain creates Asian record and Taranath Shenoy is the first deaf and dumb Asian in crossing the English Channel.

September 17: M. S. Oberoi named "Man of the World" for 1983 by Intl. Hotel Assn.; **18:** Insat 1B reaches space home; **23:** World energy conference ends in Delhi; **30:** Mrs. Indira Gandhi receives U.N. Population Award.

October 6: Sq. Leader Rakesh Sharma and Wing-Commander Ravish Malhotra named to receive training for the joint Indo-Soviet space flight; Punjab comes under President's rule; **7:** B. D. Pande named new governor of Punjab; **8:** Indian Air Force completes 50 years; capsule containing memorabilia, to be opened during centenary year, unveiled; **24:** Hindi translation of the Guinness Book of World Records released in New Delhi; **25:** Four murderers of Maharashtra involved in the Joshi-Abhyankar multiple murder case, Rajendra Jakkal, Dilip Sutar, Shantaram Jagtap and Munawar Shah, hanged to death; **30:** 14 items added to the list for concessional treatment in Indo-Yugoslav-Egyptian tripartite trade pact.

November 5: Silent Valley project scrapped; Documentary film "Garvi Gujarat" adjudged the best Asian entry at the seventh International Documentary and Short Film Festival held in London; **10:** Deputy P.M. of German Democratic Republic arrives in New Delhi on a seven-day official visit; **13:** 21 die as train ploughs through crowd near Faizabad; **16:** Prof. Devendra Lal elected pres. of the International Union of Geodesy and Geophysics based in London; **17:** Queen Elizabeth II and Prince Philip arrive in New Delhi on a 10-day visit; **23:** Commonwealth Heads of Government Meeting (CHOGM) inaugurated in New Delhi; **29:** CHOGM ends.

December 3: The Third expedition to the Antarctica of the 80-member team leaves the shores of Goa; **9:** Media conference of the non-aligned countries inaugurated by Mrs. Indira Gandhi at New Delhi; **27:** The Third expedition team lands on Antarctica; **28:** Sunil Gavaskar creates world record of 30 test centuries.

FOREIGN

January 3: Fernando Schwalb becomes Peru's new P.M.; **17:** 46 people perish in Turkish plane crash; **19:** Chairman of Namibian Interim Govt. Dirk Mudge resigns; **25:** Court commutes death sentence of Mao Zedong's widow, Jiang Qing, to life term.

February 4: Junius Richard Jayewardene takes over as Sri Lanka's first elected President; **14:** Pres. Spyros Kyprianou wins a second five-year term in the first contested Presidential election in Cyprus in 22 years; **16:** Bushfires ravage two Australian states of Victoria and South Australia killing 80 people, countless heads of cattle and destroying 3,000 homes; **24:** West Germany joins African Development Bank.

March 5: Bob Hawke defeats Malcolm Fraser in Australian general elections; **6:** Chancellor Helmut Kohl is returned to office with large majority in West German elections; **10:** Suharto re-elected Indonesian President; **11:** Bob Hawke sworn in as Prime Minister of Australia; **14:** OPEC cuts oil price by five dollars per barrel; **19:** Shia-Sunni clash in Pakistan, 8 dead, 24-hour curfew clamped on Liaquatabad district of Karachi; **28:** Mauritian P.M. Aneerood Jugnauth forms new cabinet; **31:** Iran cuts oil price.

April 1: 500 people killed in Colombia earthquake; **4:** 100 injured in Sumatra earthquake; space shuttle challenger blasts off on its first flight from Cape Canaveral with 4 astronauts and 18 tonnes of cargo; **5:** France expels 47 Soviet diplomats; **6:** Fifth meeting of the Group of 77 begins in Buenos Aires; **7:** China snaps cultural ties with U.S. over granting of political asylum to tennis star Hu Na; **8:** Russia expels a British diplomat and a journalist; **11:** 45 people killed in Bangla storm; **12:** Sir Richard Attenborough's "Gandhi" film bags eight Oscars of the Motion Picture Academy awards; **13:** Harold Washington elected Chicago's first black mayor; **17:** Britain strengthens defence on Gibraltar; Chinese Premier Zhao Ziyang arrives in Australia on a six-day visit; **18:** Bangladesh and Egypt sign trade accord; Strong earthquake strikes South-East Iran; U.S. embassy in Beirut partly destroyed by car bomb explosion; **20:** Three Soviet cosmonauts launched into space aboard a Soyuz-T8 from Baikonur space centre; U.S. and Australia expel Soviet officials from respective lands for alleged spying; **22:** A joint U.S.-U.K. nuclear test detonated at Nevada test site; **25:** Chancellor Bruno Kreisky of Australia resigns after his party's defeat at the 1983 elections; **26:** Thailand's Premier Gen. Prem Tinsulanonda announces his retirement from politics; Socialist Party triumphs in the general elections of Portugal; **27:** Pakistan and China sign pact on free flow of traffic through Khunjerab pass; **28:** Sri Lanka Govt. to grant citizenship to stateless persons of Indian origin; **29:** Italy's Christian Democrat Premier Amintore Fanfani's coalition govt. resigns; **30:** Gen. Prem Tinsulanonda appointed P.M. for another four-year term.

May 3: Major earthquake razes U.S. town of Coalinga (California); 46-year old farmer's daughter becomes the first woman governor in China; French Pres. Francois Mitterrand arrives in China for talks on Cambodian problem; Iran expels 18 Soviet diplomats; **4:** Princess Anne arrives in Islamabad in her capacity as pres. of "save the children" fund; **5:** Pres. Jaffar Nimeiri of Sudan re-elected to a third six-year term; **6:** Chaim Herzog sworn in as Israel's sixth Pres.; A suit of armour belonging to King Henry VII of France sold at auction in London for record price of two million pounds; **7:** Four American climbers and their sherpa guide climb Mt. Everest without oxygen; **9:** A London subway train driver Christopher Hughes, a school dropout, defeats academicians to become the nation's "master mind"; **10:** Pres. Zia signs economic and military pact with U.S. allowing use of bases in Pakistan; **11:** Soviet Communist party leader Yuri Andropov publicly identified as chairman of the national defence council; Danny Kaye honoured for a 30-year-run in his real-life role as goodwill ambassador for the U. N. Children's Fund; Alexander Solzhenitsyn receives Templeton Prize for progress in religion; **12:** Deng Xiaoping withdraws from China's parliament, National People's Congress; **13:** Jackques de Larosiere appointed, managing director of IMF for a second five-year term; Mika Spiljak becomes President of Yugoslavia; **14:** The supplier of the forged "Hitler Diaries", Konrad Kujau, to 'Stern' magazine surrenders to police; **15:** Earthquake rocks Naples; Two whirlwinds kill 76 people and destroy more than 12,000 houses in Vietnam's two central provinces; **16:** Khunjerab pass declared open to regular vehicular traffic by China and Pakistan; **17:** Hours after Lebanese, Israeli and U.S. negotiators sign a troop withdrawal agreement, Syrian forces sever communications link; **18:** Army coup in Upper Volta, P.M. ousted; **19:** Japan's "The Ballad of Narayama" wins the 36th Cannes film festival's Palme D'Or; **22:** North Yemeni Pres. Ali Abdullah Saleh re-elected for a second five-year term; Flood havoc in southern Brazil leaves at least 20 dead and 20,000 homeless; **25:** More than 300 people feared dead in the Nile river boat mishap; **26:** U.S. Congress approves Pres. Reagan's MX plan; More than 100 feared dead in a powerful earthquake which triggered deadly tidal waves in Japan; **27:** Coalition Govt. formed in Iceland; **31.** Williamsburg summit of developed countries adopts declaration on solution to world economic crisis; Peruvian govt. declares state of emergency to fight terrorism; South Africa expelled from International Organisation of Employers (IOE).

June 2: Uganda carnage toll surpasses the 500 mark; Russia launches new space probe to Venus; **6:** UNCTAD-VI meeting inaugurated in Belgrade; Austrian mountaineer, George Bachlar climbs Mt. Kanchenjunga without the use of oxygen; China rejoins ILO after a gap of 34 years; **7:** Former SS officer, Heinz Barth, on trial for war crimes, sentenced to life imprisonment; boat with holiday-makers crashes into bridge on Volga river, 200 feared dead; **9:** Three freedom fighters of the outlawed African National Congress (ANC) are hanged at dawn in Pretoria; **10:** Mrs. Margaret Thatcher leads her party to a landslide victory in England; **11:** Francis Pym sacked as foreign secretary, Sir Geoffray Howe takes over in the British cabinet reshuffle; **16:** Yuri Andropov elected President of U.S.S.R.; Pope John Paul II arrives in Warsaw; **18 :** U.S. space shuttle Challenger blasts off with first space woman and four male astronauts; **25 :** Violent rainstorms, Senegal's worst in 70 years, causes extensive damage in Matam.

July 3: John McEnroe regains Wimbledon tennis title; UNCTAD-VI summit concludes; **5:** Powerful earthquake rocks north-western Turkey; France explodes nuclear device at the Pacific site of Mururoa atoll; **10:** Russia detonates three nuclear devices near the Caspian Sea area; **11:** Nepalese P.M., Surya Bahadur Thapa, defeated in no-trust vote; **12:** Lokendra Bahadur Chand appointed new P.M. of Nepal; **22:** Poland lifts martial law; **25:** Curfew imposed in Colombo and certain other parts after violent riots rock Jaffna and the capital in Sri Lanka; **26:** Ethnic violence in Sri Lanka, 37 Tamil activists massacred inside Welikade Jail.

August 4: Bettino Craxi as the first socialist premier after 37 years forms coalition cabinet in Italy; **5:** Former P.M. Capt. Thomas Sankara regains power in counter-coup in Upper Volta; Sri Lanka parliament passes constitutional amendment bill banning secessionist political parties; **6:** Entire Bolivian cabinet resigns to allow Pres. Hernan Siles Zuazo to reconstitute his cabinet to tackle an attempted coup; **8:** Coup reported in Guatemala; **11:** Pres. Shehu Shagari of Nigeria wins a second four-year term in elections; Queen Regent Dzeliwe removed as head of the state in the Kingdom of Swaziland; **14:** Opposition movement for the restoration of democracy begins in Pakistan; **20:** Philippines opposition leader Benigno (Ninoy) Aquino assassinated on arrival at Manila airport;

21: Israel signs an agreement to purchase 75 F-16s from the U.S.; **25:** Army takes over Sind administration; **27:** Prime Minister Aneerood Jugnanth and cabinet sworn in in Mauritius; **29:** Pres. Daniel Arap Moi declared re-elected for a second term in Kenya.
September 1: South Korean plane with 269 people shot down by Russia; **15:** Menachem Begin resigns as Israel's P.M.; **19:** Federation of St. Kitts and Nevis achieves independence from colonial British rule; **21:** Yitzak Shamir takes over as P.M. of Israel; **26:** Lebanese Prime Minister, Shafik Wazzan and his cabinet resign; **27:** Mrs. Indira Gandhi convenes summit at U.N.
October 2: Prominent opposition leader, Africanus Sembatya, killed in Uganda; **5:** Israeli P.M., Yitzak Shamir, forms coalition govt.; **9:** 15 people including 4 South Korean cabinet ministers killed in bomb blast in Rangoon; **13:** Israeli finance minister resigns over policy difference; **14:** British trade and industry secretary, Cecil Parkinson, resigns over affair with former secretary Sara Keays; **16:** Grenada P.M., Maurice Bishop, put under house arrest; **17:** Prof. Gerard Debreu of U.S. awarded Nobel Prize for Economics for his research on market equilibrium; **19:** Grenada P.M. and three other cabinet ministers shot dead; **22:** Konstantin U. Chernenko loses Russian key party post; **23:** U.S. marine headquarters building at Beirut blown up by suicide terrorist squad; **25:** U.S. army and marines invade Grenada; **26:** Jordan envoy to Italy shot at; **29:** U.S.-led forces land on Grenada; **30:** Pres. Kenneth Kaunda re-elected for fifth term; major earthquake rocks Turkey's eastern provinces.
November 4: Burma cuts diplomatic relations with North Korea holding them responsible for the killing of South Korean ministers; **7:** Civilian rule voted in by Turkey; 30 killed as quake hits north-east China; **9:** Strong earthquake rocks northern parts of Italy; **15:** Turkish Cypriots declare independence; **24:** China admitted as full member of the Asian-African legal consultative comt.; Turkish premier resigns; **25:** Sarah-Jane Hutt chosen Miss World, 1983; first batch of Pershing II missiles arrives in Bonn; **28:** Space Shuttle Columbia launched from Cape Canaveral; **29:** Commonwealth Secy.-Gen. Shridath Surendranath Ramphal chosen for a third term; world's largest azimuth reflecting telescope erected by Soviet scientists at Zelenchuk Observatory.
December 4: Taiwan's ruling Nationalist (Kuomintang) party wins landslide victory; **5:** Opposition candidate, Jaime Lusinchi, sweeps to victory in presidential elections; Jrge of Panama receives U. Thant award; **7:** Two Spanish airliners collide in heavy fog prior to take-off, more than 104 killed; **10:** Lech Walesa awarded Nobel Peace Prize; Argentina returns to civil rule, Raul Alfonsin sworn in as president: **11:** Gen. H. M. Ershad proclaims himself as Pres. of Bangladesh; **13:** Jean Genet awarded France's grand prize of letters; **17:** Bolivian cabinet resigns; **20:** Yasser Arafat and his followers leave Tripoli; **26:** Yasuhiro Nakasone re-elected Japan's new P.M., announces new cabinet; strong earthquake in Guinea, toll is 500; Sir Seewoosagar Ramgoolam sworn in as Governor-General of Mauritius; **31:** Military coup in Nigeria, Pres. Shehu Shagari ousted.

DEATHS — 1982 AND 1983

1982

INDIAN

January 1: *G. P. Kapadia* (78), first president of the Institute of Chartered Accountants of India, dies in Bombay; *David Abraham* (73), noted film actor, dies of a heart attack in Toronto, Canada; **4:** *Pandit Jhabar Mall Sharma* (94), veteran freedom fighter and litterateur, dies in Jaipur; **5:** *C. Ramchandra* (63), celebrated film music director, dies in Bombay; **6:** *Nawab Ahmad Sayed Khan* of Chatari (94), chancellor of Aligarh Muslim University, dies; **11:** *Brij Mohan Birla* (77), well-known industrialist, dies at Calcutta of heart ailment; **12:** *Jyotirmoy Basu* (61), veteran CPM leader dies at Jaipur of heart attack; **23:** *Khitish Bose* (68), noted folk singer and comedian, dies in Calcutta.

February 2: *Mohanlal Sukhadia* (66), noted parliamentarian and acclaimed builder of modern Rajasthan, dies after massive heart attack at Bikaner; *Jaisukhlal Hathi* (73), veteran congressman and parliamentarian, dies in his sleep in Bombay; **10:** *Narhar Kurundkar* (50), noted Marathi writer, dies at Aurangabad after heart attack.

March 3: *Raghupati Sahai alias Firaq Gorakhpuri*, noted Urdu poet and winner of Padmabhushan, Jnanpith and Ghalile awards, dies in New Delhi; **6:** *R. K. Mhalgi* (60), BJP MP. dies in Bombay; **9:** *Shantaram Nilkanth alias Shamrao Oak* (77), a noted Marathi humorist and film critic, dies in Pune; **10:** *Dr. G. S. Melkote* (81), a veteran freedom fighter and a minister in the erstwhile Hyderabad State, dies in Hyderabad; **12:** *Nalinikant N. Kilachand* (53), prominent industrialist dies in Bombay; *Digambar Gopal* (65), a freedom fighter of Maharashtra, dies in Calcutta; *Bipin Bihari Choudhury* (76), a noted artist, dies in Bhubaneshwar; **13:** *Krishna Prasad* (87), former director-general of posts and telegraphs dept., dies in New Delhi; *A. Nagappa Chettiar* (67), a leading leather industrialist, dies in Madras; **17:** *Sitaram Seksaria* (90), a noted philanthropist and social worker, dies in Calcutta; **18:** *Jathedar Gurdial Singh Ajnoha* (57), head priest of Akal Takht (the supreme religious seat of the Sikhs), dies in Amritsar; **19:** *Acharya J.B. Kripalani* (96), the noted Gandhian, dies in Ahmedabad; **20:** *K. M. George* (63), a leading professional manager, dies in Bombay; **31:** Jain Muni, *Sthanakwasi Surya Muniji Maharaj* (86), a poet and a scholar, dies in Indore.

April 8: *Shri Abhinav Sachidanand Tirth Maharaj* (70), the Shankaracharya of Sharadapeeth Dwarka in Jamnagar, dies at Veraval; **11:** *K. Narayana Menon* (65), founder-member of the Cochin Coir Merchants' Association, dies in Cochin; **13:** *Pandit Paramanand of Jhansi* (93), eminent revolutionary and founder member of the Gaddar Party, dies in New Delhi; *B. P. Mandal* (64), former CM of Bihar, dies in Patna; *G. Sankaran Nair* (90), noted Gandhian and social worker, passes away at Ottapalam, near Palghat; *Purnajyoti Bhattacharjee* (52), popular cinema designer and publicity officer, dies in Calcutta; **16:** *Achyut Barve* (55), noted Marathi novelist and short-story writer, dies in Bombay; **17:** *B. K. Acharya* (70), ex-envoy to Czechoslovakia, Romania, Pakistan etc. dies in Calcutta; **18:** *Nathuni Singh* (87), freedom fighter; dies in Patna; **19:** *Ambulkar Guruji* (75), freedom fighter, dies in Wardha; **23:** *R. Parthasarathy* (76), well-known Tamil writer, dies in Madras; **25:** *Purshottam Laxman Inamdar* (75), eminent jurist and lawyer of Gopal Godse case fame, dies in Gwalior; **26:** *Mr. Malyaj* (47), noted Hindi poet and literary critic, dies in New Delhi; **28:** *Abasaheb Samel alias Vasant Pandharinath* (65), freedom fighter in Goa liberation movement, dies in Panvel; *R. G. Saraiya*, a leading businessman and industrialist, dies in Bombay.

May 1: *Gora Sastry* (62), veteran journalist and editor of *Andhra Bhoomi*, dies in Hyderabad; *Mohanlal Jalan* (72), a front-ranking industrialist, dies in Calcutta; *Dr. Pratapchandra Guha Roy* (96), veteran freedom fighter, politician and journalist, dies in Calcutta; *S. M. Shah* (61), well-known industrialist, dies in Belgaum; *S. A. Krishnan* (56), editor with the Lalit Kala Akademi, killed in road accident; **2:** *Kaviraj Purna Chandra Rath* (93), eminent Sanskrit scholar, dies in Puri; **3:** *Rajni Patel*, eminent lawyer, dies in Bombay; **5:** *Acharya Chandanmal Gundecha* (59), editor of *Nav Maratha*, dies at Aurangabad; *Mrs. Accamma Varkey nee Cherian* (73), one of the foremost freedom fighters of Travancore State. dies at Trivandrum; *Ataur Rahman*, ex-minister and ex-deputy speaker of Assam, dies in Gauhati; *Pandit Ram Dev Shastry* (82), a prominent Arya Samaj leader, dies in New Delhi; **7:** *Bhagwati Prasad Tiwari* (60), a freedom fighter and an associate of Mahatma Gandhi, dies in Kanpur; Diago D'Souza, former captain of Kirkeeans Hockey Club, dies in Pune; **8:** *Atmaram Raoji Deshpande alias Anil* (81), renowned Marathi poet and Sahitya Akademi winner, dies in Nagpur; **10:** *Dr. Rajendra Chandra Hazra* (78), a renowned Sanskrit scholar, dies in Calcutta; *P. Y. Dixit* (72), leading city educationist, dies in Bombay after an accident; *A. N. Grover*, founder and head of the Modella Group of Industries, dies at Kota; **11:** *Dr. N. D. Pandya*, noted Ayurvedic adviser, dies in Bombay; **14:** *Mrs. Memuna Sultana* (80), Begum of Bhopal, dies in Bhopal; **15:** *Miss Kapila Khandwala* (77), an eminent educationist and social worker, dies in Bombay; *Kumar Chandrashekhar*, noted Marathi film director, dies in Bombay; *Krishna Kumar Kallur* (75), educationist and Kannada writer, dies in Bombay; **19:** *Kantilal B. Shah* (68), well-known industrialist, dies in Bombay; **22:** *Ganesh Solanki* (45), Marathi stage comedian and drama director, dies in Bombay; **23:** *Zahin Singh* (82), a freedom fighter, dies at Kutia Rampur, Kanpur; **26:** *Yug Divakar Kirti Prabha Vijayji Maharaj*, the chief Jain monk of the late Acharya Dharmsurisvarji, dies in Bombay; **29:** *Moulana Abdul Wahab Bukhari* (82), noted Muslim scholar and educationist, dies in Hyderabad; *Dr. A. N. Sengupta* (60), noted cardiologist, dies in Calcutta.

June 1: *Seshacharya Katti* (87), a veteran journalist of North Karnataka and first editor of *Samyukta Karnataka*, dies in Belgaum; *Atul Chandra Saikia* (57), general secretary of Assam branch of AITUC, dies in Gauhati: **5:** *Sant Singh Yusuf* (76), a veteran trade union leader, dies in Kanpur; *Dr. Ashok Kumar Majumdar* (66), noted historian and former director of Delhi Centre of Bharatiya Vidya Bhavan, dies in Santiniketan; *C. V. Rajan* (82), former special deputy director-general, Post & Telegraphs, dies in Bangalore; **6:** *V. Venkatasubba Reddiar* (73), ex-C. M. of Pondicherry, dies in Pondicherry; *Devraj Urs* (67), ex-C. M. of Karnataka, dies in Bangalore; **7:** *Krishna Kanta Handique* (84), noted orientalist, Sanskrit scholar and first vice-chancellor of Gauhati Univ., dies at Dibrugarh; **8:** *Shivram Dattatreya alias Dadasaheb Rege* (76), dies in Bombay; *Dr. K. Bhaskaran Nair* (70), scientist, educationist and litterateur, dies in Cannanore; *Radha Raman*, ex-chief Executive Councillor of Delhi, dies; **10:** *S. B. Javali* (71), a senior lawyer and educationist, dies in Belgaum; **11:** *Mirza Mohammed Afzal Beg* (74), close associate of Sheikh Abdullah, dies in Srinagar; **12:** *S. L. Pawar*, a great champion of adult education dies in Bombay; **15:** *Himanshu Kumar Bhaduri* (55), senior producer of the Hindi unit of BBC, dies in London; **17:** *Upadhya Sharman Sri Phul Chandji* (69), the second head of the all world Jain community, dies in Ludhiana; **19:** *Jayalakshmi* (25), Tamil actress, dies in Madras; **22:** *Jamini Dewan*, (71), noted film producer, dies in Bombay; **23:** *Rasiklal Parikh* (72), eminent artist, teacher and writer dies in Ahmedabad; **27:** *Subodh Chandra Majumdar*, editor of *Naba Kallol* and *Suktara* dies in Calcutta; *Mr. Hiralal* (70), noted film star, dies in Bombay; **30:** *B. G. Harsulkar* (78), noted Marathi poet, dies in Aurangabad.

July 3: *Girijabai Kelkar* (78), noted singer and actress of yesteryears, dies in Bombay; *Pandit Bharat Vyas* (65), noted film lyricist, dies in Bombay; **4:** *Prof. M. R. Rajasekhara Setty* (64), renowned Zoologist, dies in Mysore; *Sadashivrao Benadikar Shrimat* (93), religious head of Chhatrapati Peetha, dies in Kolhapur; **8:** *Sarla Behn (Katharine Mary Heilman)* (82), Gandhian worker, dies in Almora; **9:** *D. N. Madhok* (80), film story and lyric writer, dies at Hyderabad; **11:** *Pandit Surya Narayan Das* (75), well-known Oriya writer, historian and journalist dies in Puri; **13:** *Irvatoor Manjunath Pai* (73), industrialist and philanthropist, dies; **14:** *Dr. R. Vishwanathan* (83), founder-director of the Vallabhbhai Patel Chest Institute, and a Padma Bhushan, dies in New Delhi; **17:** *Dr. Amrik Singh Cheema* (64), noted agricultural scientist and a recipient of Padma Shri, dies in Tanzania; **21:** *M. Kijayatullah* (70) veteran hockey player dies in Bhopal; **22:** *Dr. P. K. Sen*, renowned heart surgeon and Director-Prof. of surgery at K. E. M. hospital, Bombay and recipient of Padma Bhushan and Dr. B. C. Roy Award, dies in Calcutta; **27:** *Dr. Waman Narayan Pabalkar* (76), a well-known harmonium player, dies in Pune; **28:** *S. A. Ganesan* (75), freedom fighter and an erudite scholar in *Kamba Ramayana*, dies in Coimbatore; **29:** *Sohan Singh Josh* (87), founder-member of Communist Party of India, dies in Amritsar; **30:** *I. T. Mirchandani* (57), chairman and managing director of Advani Oerlikon, dies in Bombay.

August 3: *Tribhuvan Narain Singh* (78), veteran freedom fighter, and former governor of West Bengal, dies in Varanasi; **4:** *T. V. Gopinath Das* (68), noted Harikatha exponent and dramatist, dies at Vellore; **5:** *Godey Murahari* (56), former deputy speaker of Lok Sabha, dies in New Delhi; **6:** *S. K. Pottekkat* (69), renowned Malayalam writer, Jnanpith award winner and former member of Lok Sabha, dies in Kozhikode; **8:** *Prof. Bhagwat Saran Upadhyaya* (73), India's high commissioner in Mauritius, dies in Port Louis; *Dr. U. S. Nair* (78), renowned statistician of Kerala, dies in Tokyo; **9:** *Gopi Krishen Handoo* (77), Jawaharlal Nehru's security adviser, dies in Jammu; **13:** *Air Chief Marshal P. C. Lal* (66), former chief of the Air Staff, dies in London; **14:** *Mr. Kanhaiyalal* (72), veteran film actor, dies in New Delhi; **15:** *Dr. Bhudeo Sharma* (49), an authority on crystal lattice defects, dies in Bombay; **16:** *Arun Roy* (62), an authority on folk culture and a recipient of the Rabindra Prize, dies in Calcutta; **17:** *Father Camille Bulcke* (73), a renowned Hindi scholar working on the Hindi translation of the *Bible*, dies in New Delhi; **18:** *S. Krishnaswamy* (55), managing director of the Associated Cement Companies Ltd. (ACC), dies in Bombay; **19:** *Dr. M. K. V. Bappu*, renowned astronomer and director of the Indian Institute of Astrophysics, Bangalore, dies in Munich; *Ramachandra Balwant Ghorpade* (82), freedom fighter, educationist and journalist, dies in Pune; **22:** *Eknath Ramakrishna Ranade (68)*, builder of the Vivekananda rock memorial at Kanyakumari, dies in Triplicane; **25:** *Mushir Ahmed* (59), well-known documentary film maker and former chief producer of the films division of the Union Government, dies in Riyadh; **26:** *Prof. Susodhan Chandra Sarkar* (82), noted historian, dies in Calcutta; **27:** *Ma Anandamayi* (87), a spiritual leader, dies in Dehra Dun; *R. G. Anand*, well-known architect and one of the pioneers of the theatre movement, dies in New Delhi; **29:** *Agha Syed Yusuf Almosvi Alsafvi* (80), Shia head, popularly known as Agha Sahib Badgam, passes away at Badgam; **30:** *Bhabesh Chandra Nandy* (80), a front ranking revolutionary, dies in Calcutta; **31:** G. S. *Pathak* (86), former vice-president of India, expires in New Delhi.

September 3: *Datta Bal* (42), internationally known spiritual thinker of Maharashtra, dies in Bombay; **4:** *Baburao Patel* (78), editor of the magazine *Mother India* and former M.P., dies in Bombay; **8:** *Sheikh Mohammad Abdullah* (77), chief minister of Jammu and Kashmir, dies in Srinagar; *Zunjarrao Pawar* (91), noted actor of Marathi silent film days, dies in Kolhapur; *Prof. P. K. Kichlu* (82), a distinguished fellow of Indian National Science Academy, dies in New Delhi; **13:** *Kishore Parekh* (52), one of the most distinguished Indian photographers, dies at Hemkund; **17:** *Prabhudayal Agarwal* (62), founder chairman of Transport Corporation of India, Ltd., and Bhoruka Steel Ltd., dies in Houston; *Mrs. Indira Chitnis* (72), veteran Marathi stage and screen actress, passes away in Pune; **20:** *Dr. H. R. Arkere*, a well-known educationist and former vice-chancellor of agricultural university, Hebbal, dies in New Delhi; **28:** *Vinod Sanghi* (41), noted philanthropist and technocrat and a partner and director of the Sah & Sanghi group of automobile companies, dies in Bombay.

October 1: *H. V. (Haribhau) Mote* (76), a doyen of the Marathi publishing world, dies in Pune; **2:** *Dr. C. D. Deshmukh* (87), former Union finance minister, passes away in Hyderabad; *Swami Muktananda* (74), spiritual leader with a large following in India and abroad, attains *samadhi* at Ganeshpuri in Thane **3:** *Sopandev Chowdhury*, well-known poet and son of noted poetess Bahinabai, passes away; **7:** *P. T. Sundaram* (68), noted palmist, dies in Madras; **9:** *H. V. Kamath* (75), veteran parliamentarian, a member of the constituent assembly and Janata Party leader, dies in Nagpur; **11:** *Pundit Bechardas Doshi* (93), freedom fighter, eminent Sanskrit and ancient Indian languages expert, dies at Ahmedabad; **14:** *N. H. Kumbhare* (60), veteran trade union leader and former member of Rajya Sabha, dies at Kamptee; **19:** *V. R. Bhende* (86), veteran journalist and a prominent member of the Asiatic Society of Bombay, dies in Bombay; **20:** *N. N. Wanchoo* (72), former governor of Kerala and M.P., dies in New Delhi; **22:** *V. P. V. Rajan* (69), veteran journalist, dies in Madras; **25:** *Kumdurti Anjaneyulu* (59), noted Telugu poet and recipient of State and Central Sahitya Akademi Awards and Soviet Land Nehru Award, expires in Hyderabad; *Bherumal Isardas Jagtiani* (77), freedom fighter and journalist, dies in Bombay; **27:** Mr. *Pyarelal* (82), noted Gandhian and private secretary to Mahatma Gandhi, dies in New Delhi; **30:** *Rikhabchand Kesartmal Sanghvi* (65), noted industrialist and philanthropist and director of the Sanghvi group of industries, dies in Pune; *Dr. Betagiri Krishna Sharma (Anand Kanda)* (82), noted poet, novelist and short story writer, dies in Dharwar.

November 1: *Prof. Mathura Prasad Dubey (Kuldeep)* (60), a noted Hindi poet, dies in Agra; *Rasiklal Parikh* (86), well-known Gujarati writer, dies in Ahmedabad; **4:** *Sir Biren Mookerjee* (83), doyen among Indian industrialists, dies in Calcutta; *Ravi L. Kirloskar* (65), well-known industrialist and chairman and managing director of Kirloskar Electric Co. Ltd., dies in Kuala Lumpur; *Yunus Malik* (45), noted ghazal singer and film music director, dies in Bombay; **5:** *Dr. A. B. Nageswararao* (82), veteran freedom fighter and a former minister, dies at Rajahmundry; **6:** *Harsadbhai T. Dave* (70), an authority on the philosophy of Lord Swami Narayan, dies in Bombay; *B. C. Alva* (59), ex-test cricketer and former captain of Madras Ranji Trophy team, dies in Mangalore; *Dinkar Desai* (74), veteran trade union leader and life member of Servants of India Society, dies in Bombay; **14:** *Babban Khan* (110), noted shehanai and nakkara exponent, dies in Lucknow; **15:** *Acharya Vinoba Bhave* (87), spiritual heir of Mahatma Gandhi and architect of the Sarvodaya and Bhoodan movements, dies in Paunar; **16:** *H. D. Mariwalla* (90), a veteran congressman, journalist, freedom fighter and educationist, founder of Bal Bhavan, dies in Bombay; **18:** *T. Janakiraman* (62), noted Tamil novelist, playwright and short story writer, dies in Madras; *E. Eachera Warrier* (94), noted Sanskrit scholar and an authority on temple architecture and planning, dies near Tripunithura; *Puripanda Appalaswamy* (78), renowned Telugu litterateur, dies in Visakhapatnam; **20:** *Chimanlal Chakubhai Shah* (80), first Indian solicitor of Bombay government, a member of the Constituent Assembly and former M.P., dies in Bombay; **21:** *Mrs. Lalitha Sivasankaran Nair* (51), eldest of the renowned Bharata Natyam team Travancore sisters, dies in Alleppey; *K. P. S. Menon* (84), former envoy to USSR, dies in Ottapalam, Cochin; **24:** *Mrs. Gertrude Emerson Sen* (93), eminent journalist and historian, recipient of Padma Sri and Wattumull award for literature, dies in Almora; **28:** *Hemraj Jandial* (75), former deputy speaker of Jammu & Kashmir assembly, dies in Jammu; **29:** *Pramode Dasgupta* (73), CPM secretary and West Bengal ruling front chairman and member of party's central committee and politburo, dies in Beijing.

December 1: "*Shanti*" *Tseng* (81), famous Chinese journalist and a disciple of Mahatma Gandhi, dies at Sevagram; *T. K. Bhagavathi* (84), veteran Tamil stage and screen actor, dies in Madras; **2:** *Shankar Moreshwar Joshi* (95), noted Hindu calendar expert and scholar, dies in Kolhapur; **3:** *M. Thannasi*, Tamil Nadu Naxalite leader, found dead in his house near Palani; *Bishnu Dey* (72), noted poet and Jnanpith award winner, dies in Calcutta; **5:** *Mrs. Sharadchandrika Patil* (54), Maharashtra's education minister, dies near Jalgaon; **7:** *Baburao Vijapure* (80), noted actor and director of the Marathi stage, dies in Pune; **8:** *Ranbir Singh* (75), Urdu journalist and chief editor of the daily *Milap*, dies in New Delhi; *Des Raj Mahajan*, Himachal Pradesh transport minister, dies in Jammu; **11:** *A. A. Almelkar* (63), noted painter, passed away at Pune; **19:** *Jagannath Singh* (95), freedom fighter, dies at Seria Village; *B. B. Puthran* (50), well-known table tennis umpire, passes away in Bombay; *Agusto Aranjo* (60), founder of the National Barbell Club and organiser of the first Bombay Shree body beautiful contest, dies in Bombay; **21:** *Prof. Abu Shaeed Ayyub* (76), noted writer and philosopher, winner of the academy award for literature and the Rabindra Award, dies in Calcutta; **24:** *Gautam Rajbhoj* (38), former editor of *Samata* engaged in the upliftment of Dalits, dies in Pune; **25:** *Satyadeva Jha* (108), freedom fighter, dies in Muzaffarpur village; **27:** *Mahendra Mohan Choudhury* (75), former chief minister of Assam, dies in Gauhati, **30:** *Amrut Vinayak Gore* (55), noted Marathi film script-writer, and producer, dies in Pune; *Datta Dharmadhikari* (72), noted Marathi film director, of many silver-jubilee hits, dies in Pune.

FOREIGN

January 26: *Mikhail Suslov* (79), Soviet Communist Party secretary and a key figure in politics, dies in Moscow; **31:** *Lord Peter Ritchie-Calder* (75), British journalist and scientist, dies at Edinburgh.

February 20: *Rene Jules Dubos* (81), scientist and environmentalist and winner of Pulitzer Prize, dies in New York; **22:** *Josh Malihabadi* (83), noted Urdu poet, dies in Islamabad.

March 2: *Philip K. Dick* (53), author of 35 science fiction novels and winner of Hugo Award, dies in California; **4:** *Soren Kristian Toubro* (76), co-founder of Larsen & Toubro group of companies, dies in Texas; **6:** *Ayn Rand* (77), the famous novelist, dies in Manhattan.

April 3: *Yacov Barsimantov* (43), Israeli diplomat in France, killed by a gunman in Paris; **7:** *Marshal Rotmistrov* (82), World War II hero in the battle of Moscow, dies; **8:** *Chemist Robert Havemann* (72), East Germany's most prominent dissident, dies near East Berlin; **18:** *Gaylord P. Harnwell* (78), atomic physicist who helped develop sonar ranging, dies in Haverford, Pennsylvania; **20:** *Archibald Macleish* (89), poet, writer and three times winner of Pulitzer Prize, dies in Massachusetts; **23:** *Dr. Chyuing Yil-Hyung*, former South Korean foreign minister, dies; **26:** *Frank Cuppola* (82), great mafia boss who was deported from U.S. in 1948, dies in clinic outside Rome; **29:** *Qassem Al-Rimawi* (64), former Jordanian Prime Minister, dies in Amman; **30:** *Pio la Torre*, head of Italian Communist Party in Sicily, is shot dead by unknown gunmen.

May 1: *Rasul Khan Talpur*, a senior Sind minister, dies in Karachi; *William Primrose* (77), world renowned violinist, dies in Provo, Utah; **3:** *Helmut Dantine* (63), Austrian-born-actor-producer dies at Cedars Sinai Medical Centre; *Mohammed Benyalia*, Algerian foreign minister, dies in plane crash near Turkish-Iranian border; **4:** *Orhan R. Gunduz*, Honorary Turkish Consul, shot dead in Boston; **5:** *Angel Pascual Mugica*, director of a nuclear plant under construction, shot dead in Bilbao, Spain; **8:** *Gilles Villeneuve* (30), Canadian car racing driver, dies in crash; *Neil Bogart* (39), founder of Casablanca Records and Films, dies in Los Angeles; **11:** *Andy Balaba*, Filipino Flyweight boxer, dies in Seoul; **22:** *Cevdet Sunay*, Turkey's fifth President, dies in Istanbul; **29:** *Romy Schneider* (43), French actress who won the highest French-film award of Caesar twice, dies in Paris; **29:** *Dr. T. Fuji Moto* (74), executive vice-president of Tokyo Engineering Corpn., dies in Tokyo; *Evangelina Garcia de Lopez* (47), named mayor-to-be, shot dead in San Salvador; **31:** *Carolo Mauri* (52), Italian climber and explorer who pioneered modern rock climbing, dies in Lecco, Italy; *Doris Leslie* (80), English novelist and historical biographer, dies in Sussex.

June 1: *Chaudhry Fazal Elahi* (78), former President of Pakistan, dies in Islamabad; **4:** *Shlomo Argov*, Israeli ambassador to Britain, shot dead; *Mustafa Al-Marzook* (45), first secretary of the Kuwaiti embassy is shot dead in New Delhi; **8:** *Hazrat Mirza Nasir Ahmed* (72), head of Ahmedia community, dies in Islamabad; **10:** *Rainer Werner Fasebinder* (36), internationally renowned German film director, found dead in his apartment at Munich; **11:** *Santosh Kumar* (54), renowned Pakistani film actor, dies in Lahore; **12:** *Dame Marie Rambert* (94), founder of Ballet Rambert and a major influence on modern dance, dies in London; **13:** *King Khaled of Saudi Arabia* (69), dies in Jeddah; **14:** *Marjorie Bennett*, character actress of yesteryears, dies in Hollywood; **18:** *John Cheever* (70), Pulitzer prize winning author and considered "Chekov of the suburbs," dies in Ossining, U.S.A.; **29:** *Pierre Balmain* (68), French fashion designer, dies in Paris.

July 3: *Annibale Bugnini* (70), the Papal Nuncio to Iran who tried to secure the release of the American hostages, dies in Rome; **4:** *Takeshi Saito* (90), Japan's oldest authority on English literature, stabbed to death by grandson; *Pres. Antonio Guzman* of the Dominican Republic shoots himself; **9:** *Frank Christi* (52), character actor, shot dead in Los Angeles; *Isa Miranda* (77), Italy's most famous movie actress, dies in Rome; **12:** *Sir Chaples Gasyonga* (72), the last king of Ankole, one of the four defunct kingdoms of Uganda, dies in Mbarara; *Kenneth More* (67), noted British actor, dies in London; **19:** *Dale Morsch* (50), South-East Asia bureau chief of the United Press International, dies in New Delhi; **21:** *Ahmat Acyl*, former Chadian foreign minister found dead in Lai; *B. P. Koirala* (67), former Nepalese prime minister, dies in Kathmandu; **23:** *Vic Morrow* (50), veteran screen actor, killed while shooting on a set in California; **24:** *Dr. Richard H. Lawler* (86), Nobel prize nominee and pioneer of kidney transplant, dies in Chicago; **25:** *Kenzo Okada* (79), noted Japanese painter dies in Tokyo; **26:** *Khadija Mastoor* (54), Pakistani novelist, dies in London; **29:** *Gen. Sir Richard Gale* (86), paratroop commander who established first allied foothold in France during World War II, dies at Kingston, London; *Harold T. Sakata* (62), actor, best known for his sinister characterisation in 'Goldfinger', dies in Honolulu; *Vladimir Zworykin* (93), father of television, dies in New York.

August 8: *Iqbal Ahmad Khan* (42), noted Pakistani journalist, dies in Karachi; **12:** *Henry Fonda* (77), veteran screen actor, dies in Los Angeles; **14:** *Patrick McGee* (58), noted actor and winner of Tony award, dies in London; **21:** *Sobhuza II* (83), King of Swaziland, dies in Mbabane; **23:** *Dr. Stanford Moore* (68), winner of 1972 Nobel Prize for Chemistry, dies at Manhattan, New York; **24:** *Mother Celia Garcia* (76), Spanish nun and founder of Dilkush Special School in Bombay, dies in Bombay; **27:** *Col. Atilla Altikat*, military attache at the Turkish embassy, shot dead in Ottawa; **29:** *Ingrid Bergman* (67), noted actress, dies in London; *Nahum Goldmann* (87), a towering figure in Zionist history, dies in Bavaria; *Stanley M. Swinton* (62), veteran journalist and vice-President of Associated Press, dies in New York.

September 1: *Wladyslaw Gomulka* (77), Poland's Communist ruler for fourteen years in post World War II era, dies in Warsaw; **2:** *H. W. H. Lucker* (59), senior official of U.N.I.C.E.F., dies in New Delhi; **5:** *Nikolai Y. Suslov* (47), member of party's central committee, dies in automobile crash in Moscow; **14:** *Princess Grace of Monaco* (52), dies in Monaco; **15:** *Bashir Gemayel*, President-Elect of Lebanon, dies in bomb blast in Beirut; **16:** *Rosalinde Fuller* (90), who played Ophelia to John Barrymore's Hamlet in 1922, dies in New York; **23:** *Muzahim Pachachi* (91), former Prime Minister of Iraq, dies in Geneva; **26:** *Sergei Vernov* (72), noted academician, dies in Moscow; *Franco Calamandrei* (65), Communist senator, dies in Rome.

October 1: *Ivan Sokolov* (55), member of Supreme Soviet, dies in Moscow; **4:** *Glenn Gould*, renowned pianist, dies in Toronto; *Stephanos Stephanopoulos* (83), former Greek premier, dies; **6:** *Dr. Kunwar Inderjit Singh* (76), former Nepalese Prime Minister, dies in Bangkok; **8:** *Lord Philip Noel-Baker* (92), former British cabinet minister and Nobel Prize winner, dies in London; *Fernando Lamas* (67), Latin American actor-director, dies in Ucla medical centre; **14:** *Howard Sackler* (52), Pulitzer prize-winning play Wright, dies in Ibiza, Spain; *Virginia Zanuck*, a famous actress of silent movie days, dies in Santa Monica; **18:** *Pierre Mendes-France* (75), former French premier, dies in Paris.

November 4: *Dominique Dunne* (22), star of horror film 'Poltergeist', dies in Los Angeles; **5:** *Yves Ciampi* (61), internationally renowned French film director, dies in Paris; *Jacoques Tata* (74), French actor-director, dies in Paris; **6:** *Dale Edwards*, well-known guitarist, dies in Dayton motel swimming pool; *Frank Swinnerton* (98), English novelist and critic, dies in London; **9:** *Dr. Anna Freud* (86), eminent psychoanalyst and daughter of Dr. Sigmund Freud, dies in London; **10:** *Air Marshal Sir Thomas Cimhirst* (86), top British military leader and first commander-in-chief of the Indian Air Force from 1947-50, dies at Hampshire; **11:** *Leonid I. Brezhnev* (75), Soviet President, dies in Moscow; **12:** *Arvid Pelse* (83), oldest member of Soviet Communist Party politburo, dies in Moscow; **13:** *Wilhelm Von Pochhammer* (91), West German ex-Consul-General to India, dies at Bremen; **18:** *Dr. Carl G. Heller* (69), one of the inventors of the contraceptive pill, dies in Washington.

December 2: *Alexander V. Belyakov* (85), the pilot who charted Polar air route between Soviet Union and Canada, dies in Moscow; *Marty Feldman* (44), the renowned British comedy actor, dies while shooting in Mexico **5 :** *Roshanara Begum*, doyen of classical music, dies in Islamabad; **6:** *Yuri Brokhin* (49), Russian author and a former film and television director, found murdered in New York; **7:** *Dr. George B. Kristiakowsky* (82), atomic bomb designer, dies in Massachusetts; **8:** *Haim Laskov* (63), Israel's ex-army chief, dies in Tel Aviv; **9:** *Leon Jaworski* (77), special Watergate prosecutor, dies in Houston; **17:** *Dr. T. G. P. Spear*, a well-known historian of India, dies in London; **21:** *James Kilgallen* (94), veteran newsman who reported on the Second World War for the International News Service, dies in New York; **24:** *Louis Aragon* (85), top French poet and novelist, dies in Paris.

1983:

INDIAN

January 8: *Satya Ranjan Bakshi* (86), journalist and freedom fighter, dies in Calcutta; *Dr. John Francisco Costa Bir* (82), social worker and freedom fighter, dies at Margao; **18:** *Dr. A. V. Verghese* (52), Vice-Chancellor of Kerala University, dies in Trivandrum; *Miss Mira Dutta Gupta* (77), educationist, dies in Calcutta; *A. R. Bhat* (78), journalist and economist dies in Pune; **19:** *Mr. Navajata* (61), Chairman of Aurobindo Society in Pondicherry, dies in New Delhi; **21:** *Adm. Ram Das Katari* (71), first Indian Chief of Naval Staff, dies in Hyderabad; **26:** *G. L. Samant* (71), noted tabla player, dies in Pune; **27:** *Kanu Bandopadhyaya* (79), stage and movie actor, dies in Calcutta; **28:** *Kisanlal Onkardas Goenka* (81), industrialist, dies in Akola, Maharashtra; **29:** *Piloo Mody* (57), veteran politician, dies in New Delhi; **30:** *P. C. Chanda*, founder president of Indian Paints Research Association, dies in Calcutta.

February 1: *Padma Devi* (66), film actress, dies in Calcutta; **3:** *M. D. Alimudin* (65), former Chief Minister of Manipur, dies in Imphal; **6:** *Dr. Atma Ram* (74), former director-general of C.S.I.R. dies in New Delhi; *C. Sivaramamurti* (73), former director of National Museum, dies in New Delhi; **12:** *Thakur Ranjit Singh* (77), former Jammu and Kashmir minister, dies in Jammu; **15:** *Ujjal Singh* (90), veteran politician, dies in New Delhi; **16:** *C. K. Daphtary* (89), eminent jurist, dies in New Delhi; *Dr. Abdul Haq* (84), veteran Urdu poet, dies in Varanasi; **17:** *Ashok Sarkar* (70), editor of *Ananda Bazar Patrika*, dies in Calcutta; *Palagummi Padmaraju* (67), noted Telugu writer, dies in New Delhi; **18:** *P. C. Ghosh* (94), first chief minister of West Bengal, dies in Calcutta; **19:** *K. P. Goenka* (70), top industrialist, dies in Calcutta; *G. R. Kamat (74)*, former World Bank director dies in Pune; **22:** *A. Subbaiah Shastry* (89), noted Sanskrit scholar, dies in Mangalore; *Hiralal Kasliwal* (84), industrialist and philanthropist, dies in Indore.

March 2: *Kobita Sarkar*, noted film writer, dies in New Delhi; **21:** *Dharamsey Mulraj Khatau* (82), industrialist, dies in Bombay; **25:** *M. Chalapathi Rao* (74), journalist, dies in New Delhi; **26:** *Charuchandra Banerjee* (97), noted revolutionary dies in Calcutta; **29:** *Damodar Bhatt "Sudhanshu"* (71), journalist and poet, dies in Porbandar; **31:** *Narayanrao S. Kajrolkar* (87), champion of backward classes, dies in Bombay.

April 5: *T. K. Subbiah Pillai* (95), freedom fighter, dies in Madras; **6:** *Prof. Gyan Chand* (89), economist, dies in New Delhi; *J. N. Chaudhuri* (75), former Chief of army staff, dies in New Delhi; *Som Nath Khosa*, artist, dies in New Delhi; **9:** *Sulochana alias*

Ruby Myers (76), legend of silent movie, dies in Bombay; **11:** *Niranjan Parikh*, journalist, dies in Ahmedabad; **13:** *R. N. Bangur* (65), industrialist, dies in Calcutta; **15:** *Mrs. Sharda Devi Sharma* (85), Hindi propagator and litterateur, dies in Indore; **16:** *S. Balwantrao Bhosle* (83), editor of *Lok Sevak*, dies in Kolhapur; **17:** *Prabodh Kumar Sanyal* (78), Bengali writer, dies in Calcutta; **18:** *Vishwanath Sitaram Bole* (92), social worker, dies in Bombay; **19:** *Vallabhdas Akkad* (80), journalist, dies in Surat; **20:** *Ganesh Laxman Chandawarkar* (78), educationist, dies in Bombay; **22:** *Dr. K. K. Datey* (71), internationally-renowned Cardiologist, dies in Bombay; **26:** *Korati Srinivasa Rao* (57), Kannada writer, dies in Bangalore; **28:** *U. T. Veeraraghavachariar* (87), Sanskrit scholar, dies in Madras.

May 1: *Prof. Nadig Krishnamurthy* (62), pioneer in journalism education, dies in Mysore; **2:** *Kalipada Sen* (69), music director, dies in Calcutta; **5:** *Keshavrao Vishnu Kothavale* (60), Marathi editor and publisher, dies in Pune; **7:** *Bhupendra Nath Jha* (80), freedom fighter, dies in Malda; **9:** *Jayant Ganesh Deokule* (64), Marathi writer and artist, dies in Bombay; **10:** *Arun Dabholkar*, former education committee chairman, dies at Malvan; *Dr. Muneshwar Dayal* (75), musicologist, dies in New Delhi; **13:** *Kikubhai Jagannath Pathak* (60), freedom fighter, dies in Surat; *Dr. S. G. Manavala Ramanujam* (92), educationist, dies in Madras; **14:** *Sudhir Roy Choudhury* (80), solicitor and Netaji's associate dies in Calcutta; *Chandra Bhushan* (54), editor of *Pragati*, dies in Muzaffarpur; *K. Amarnath* (69), film director, dies in Bombay; **15:** *Balwant Venkatesh Bapat* (70), educationist, dies in Pune; *Vinubhai Shah* (82), associate of Mahatma Gandhi, dies in Vadodara; **18:** *B. S. Ramaiah* (78), Tamil short story writer, dies in Madras; *Bhausaheb Annasaheb Chougule* (63), agronomist, dies in Pune; **20:** *Prithipal Singh*, hockey player, shot dead in Ludhiana; **21:** *J. K. Somani* (66), Chairman and Mg. Director of *Eve's Weekly*, dies in Bombay; **23:** *M. R. Venkataraman* (78), veteran communist leader, dies in Madras; **24:** *Nagjibhai Govindbhai Arya* (76), Harijan leader, dies in Baroda; **26:** *R. V. Marathe* (79), inventor of pin code, dies in Bombay; **27:** *Sardar Hukam Singh* (88), former Lok Sabha speaker, dies in New Delhi; *Hardayal Hardy* (73), former Delhi High Court Chief Justice, dies in New Delhi; **31:** *Chhotubhai R. Desai* (79), former housing chief of erstwhile Bombay State, dies in Bombay; *Ghananand Pandey* (82), educationist, dies at Nainital.

June 1: *Prof. Armando Menezes* (81), educationist, dies in Bombay; **4:** *Satish Samanta* (83), freedom fighter, dies in Calcutta; *R. Shankaran* (83), associate of Mahatma Gandhi, dies in Wardha; **7:** *Abdulla Bin Mubarak* (89), associate of Mahatma Gandhi and freedom fighter, dies in Bhavnagar; **11:** *Ghansyamdas Birla* (89), industrialist dies in New Delhi; **13:** *Prof. Fanindra Chandra Dutta* (68), scientist, dies in Calcutta; **15:** *Srirangam Srinivasa Rao* (73), Telugu poet, dies in Madras; **17:** *Dr. Yudhvir Singh* (86), freedom fighter, dies in New Delhi; **21:** *Prathivathi B. Annangarachariar* (94), Sanskrit scholar dies in Madras; **26:** *Prof. Rokkam Ramanadham* (63), special officer of Andhra University, dies in Visakhapatnam; **27:** *J. Rangnath Mudholkar* (81), former Chairman of Press Council of India, dies in Bhopal; **29:** *Surendra K. Pai* (75), pioneer of cine photography, dies in Panaji.

July 2: *P. Kesava Dev* (80), litterateur and novelist, dies in Trivandrum; **4:** *Atmaram Bhatt* (84), freedom-fighter, dies in Bhavnagar; *Prof. T. K. Venkataraman* (83), historian, dies in New Delhi; **9:** *Dr. A. R. Kamat* (71), educationist and scholar, dies in Pune; *Vasant Triambak alias Bal Gadkari* (78), freedom-fighter and social worker, dies in Panvel, Maharashtra; **14:** *Nazakat Ali Khan* (52), noted classical singer, dies in New Delhi; *Manindra Lal Chakraborty* (74), freedom-fighter, dies in Calcutta; **16:** *Sukhendu Goswami* (71), classical singer, dies in Calcutta; **17:** *Gazi Mohammed Tayyeb* (88), scholar, dies in Deoband; **18:** *Ratnakara Panditharaja V. Subramanya Sastrigal* (74), Sanskrit scholar, dies at Kumbakonam; **20:** *N. Srikantan Nair* (68), R.S.P. leader, dies in Trivandrum; *Nimai Charan Harichandran* (83), singer, dies in Puri; **21:** *Rajabhau Thite* (72), social worker and former assistant editor of *Sakal* group, dies in Pune; **23:** *Dinkarrao Mane* (79), journalist, dies in Kolhapur; **26:** *Satyanarain Sinha* (84), former governor of Madhya Pradesh, dies in Patna; *U. S. Mohan Rao* (73), general secretary of Jamnalal Bajaj Foundation, dies in Bombay; **30:** *Vasantrao Deshpande* (63), stage actor, dies in Pune; **31:** *Puran Singh Azad* (55), president of World Sikh Convention, dies in New Delhi; *Dr. Shankar Dhondo Karve* (90), former secretary of Indian National Congress in East Africa, dies in Pune; *Moinuddin Harris* (76), president of Anjuman-E-Islam, Bombay, dies in Bombay.

August 2: *Dr. Bhaskar Keshav Sohoni* (70), educationist, dies in Pune; **3:** *Abdur Razak Gulam Nabi Kohari* (75), Islamic scholar, dies; **9:** *Maharaj Kumar Brajendra Pal Singh* (57), former ruler of Karouli, dies in Jaipur; **10:** *Kesheorao Ambodekar* (83), freedom-fighter, dies at Jalgaon, Maharashtra; **13:** *Auj Yaqubi* (65), Urdu poet, dies in Aurangabad; **15:** *C. Balakrishna Kurup* (77), freedom-fighter, dies in Trichur, Kerala; **17:** *B. V. Tambe* (94), social worker and hotelier, dies in Bombay; **19:** *Vinayak Vishwanath Pendse* (67), educationist, dies in Pune; **21:** *Shyam Charan Misra* (70), freedom-fighter and journalist, dies in Varanasi; **27:** *Dr. Simon C. Fernandes* (74), former mayor of Bombay, dies in Bombay; *K. V. Pethe* (71), journalist, dies in Thane, Maharashtra; **28:** *Dr. Ramchandra V. Sathe* (77), former vice-chancellor of Bombay University, dies in Bombay; **31:** *K. V. Modak* (58), editor of *Nagpur Times*, dies in Nagpur; *Mrs. Karthyayani Amma* (77), freedom-fighter, dies in Trichur, Kerala.

September 2: *Hir Ballabh Belwal* (65), freedom fighter and social worker, dies in Almora, Uttar Pradesh; **3:** *Dr. Chimandas I. Jagtiani* (87), social-worker and freedom-fighter, dies in Bombay; **4:** *Prof. V. Seetharamiah* (82), Kannada litterateur, dies in Bangalore; **5:** *Madhav Janardan Kanetkar* (85), Gandhian thinker and freedom-fighter, dies in Nagpur; *Mr. Ranjan* (64), star of yesteryears, dies in Washington; **11:** *Ram Bhakt Kapindra*, Ramayana scholar, dies in New Delhi; **12:** *Uttamchand Ramchand Bogawat* (88), Congress leader, dies in Ahmednagar; **14:** *N. M. Walawalkar* (67), owner of Great Royal circus, dies in Bombay; **17:** *Shankarrao Govind Gokhale* (84), journalist, dies in Pune; **18:** *Dr. Harbans Lal Oberai* (50), indologist, dies in Ranchi; **22:** *Jyotish Chandra Joarder* (78), freedom-fighter, dies in Calcutta; **23:** *Sarveswar Dayal Saxena* (57), editor of *Parag*, dies in New Delhi; **25:** *V. Avadhoot* (71), veteran film cameraman, dies in Bombay; *A. V. Nadkarni* (60), social worker, dies in Bombay; **28:** *C. H. Mohammed Koya* (56), deputy chief minister of Kerala, dies in Hyderabad.

October 4: *R. D. Pusalkar* (68), industrialist, dies in Pune; **8:** *Bhaskarrao Jogeshwarrao Buty* (64), veteran Congress leader, dies in Nagpur; **10.** *Dr. C.V.G. Reddy* (50), veteran chemical oceanographer, dies in Madurai; **13:** *Vittal Mallya* (59), industrialist, dies in Bombay; **15:** *Dr. Rajiv Lochan Agnihotri* (63), Sanskrit scholar, *dies in Rewa;* **18:** *Vijay Manjrekar* (52), noted cricketer, dies in Madras.

November 5: *Dr. T. M. P. Mahadevan* (72), philosopher and national professor, dies in Madras; **6:** *Syed Ali Zaheer* (87), former union minister, dies in Lucknow; *K. N. Dave* (99), Sanskrit and Hindi scholar, dies at Jabalpur, Madhya Pradesh; **8:** *Dr. D. R. Malhotra* (84), renowned scientist and metallurgist, dies in Jaipur; **13:** *Baba Vaishampayan* (73), noted Marathi stage actor, dies in Bombay; **17:** *Dr. Anjali Mukhopadhyay* (51), exponent of Tagore songs, dies in Calcutta; **21:** *P. R. Srinivas* (82), noted economist and journalist, dies in Madras; *M. R. Kurdukar*, classical singer, dies in Aurangabad; **22:** *Nasirullah Beg*, member of Law Commission, dies in New Delhi; *Ishwar Petlikar* (66), Gujarati litterateur, dies in Ahmedabad; **28:** *Prof. Sunil Bose* (69), eminent scholar, musicologist and administrator, dies in New Delhi.

December 3: *M. N. Gurjar* (68), former chief reporter of P.T.I., dies in Texas (U.S.); **5:** *Sadashivrao Bagaitkar* (59), veteran socialist trade unionist, dies in Pune; **8:** *A. C. George* (53), former union minister, dies in Cochin, Kerala; **9:** *Shah Nawaz Khan* (69), associate of Netaji Bose, dies in Meerut; **11:** *Binayak Acharya* (67), former chief minister of Orissa, dies in Bhubaneswar; **12:** *Vishnu Dutt* (69), veteran journalist, dies in New Delhi; **21:** *P. K. Kurane* (68), C.I.T.U. leader, dies in Bombay; **23:** *Rabindra Narayan Chowdhury* (80), noted journalist, dies in Calcutta; **27:** *Sudhakar Patnaik* (92), noted Oriya litterateur, dies in Cuttack, Orissa; **28:** *Prof. G. S. Ghurye* (90), noted sociologist, dies in Bombay; *Rabin Majumdar* (65), actor-singer of yesteryears, dies in Calcutta; **30:** *Abdul Zail Tarafdar* (58), editor of *Paigam*, dies in Calcutta; *Sebastian Vaz* (80), veteran violinist, dies in Bombay; **31:** *Ustad Mohammad Yaseen Khan* (48), noted Sarangi maestro, dies in New Delhi.

FOREIGN

January 9: *Kang Ryang* (79), vice-president of North Korea dies; **18:** *Charles Heidelberger* (62), veteran cancer researcher, dies in Los Angeles; **20:** *Manuel Francisco De Santos* (50), veteran footballer, dies in Rio de Jeneiro; **24:** *George Cukor* (83), veteran Hollywood director, dies in Hollywood; **30:** *Nikolai A. Dondukov* (54), Soviet aviation minister, dies in Moscow.

February 2: *Mrs. Elena Etinguer Kavayeva* (90), associate of Lenin, dies at Ohkrid, Yugoslavia; **4:** *Karen Carpenter* (32), soft rock singer, dies at Downey; **15:** *Nikolai Firyubin* (74), former deputy foreign minister of Soviet Union, dies in Moscow; **25:** *Tennesse Williams*, playwright, and Pulitzer prize winner, dies in New York.

March 3: *Arthur Koestler* (77), Hungarian born writer and journalist, dies in London; **15:** *Rebecca West* (90), noted author, journalist and feminist, dies in London; **23:** *Barney Clark*, first recipient of permanent artificial heart, dies in Salt Lake city; **26:** *Dr. R. V. Leyden* (74), an authority on Indian art, dies in Vienna.

April 2: *Clara Nunes* (39), Brazil's most popular Samba singer, dies in Rio de Janeiro; **4:** *Gloria Swanson* (84), silent movie queen, dies in New York; **11:** *Dolores Del Rio* (78), Mexican-born actress, dies in California; **14:** *Desmond Bagley* (59), noted mystery writer, dies in London; *Fadel Abdulla Awadhi* (38), Yemenese Consul in India, dies in Bombay; *Mary Elizabeth Brown English* (101), one of identical twins above 100 years old listed in the Guinness Book of World Records, dies in Mcrae, Georgia; **15:** *Gyula Illyes* (80), Hungarian litterateur, dies in Budapest; **22:** *Very Frederick Cecil Hobart-Hampden* (81), ninth Earl of Buckinghamshire, dies in London; **29:** *Turner Catledge* (82), former editor of *New York Times*, dies in New Orleans; **30:** *George Balanchine* (79), Choreographer and 'century's greatest person in dance', dies in New York; *Muddy Waters* (68), exponent of 'Rhythm and Blues' music, dies in Chicago.

May 3: *Johnny Pulep* (74), harmonica wizard, dies in Washington; **7:** *John Masters* (68), author of *Bhowani Junction* and *Night Runners of Bengal*, dies in Albuquerque, New Mexico; **11:** *Kai Winding* (61), Danish-born pioneer of modern Jazz trombone, dies in New York; **10:** *Alexander A. Baranov* (52), deputy general director of *Tass* news agency, dies in Moscow; **13:** Mohammed Alauddin (62), movie star of Pakistan, dies in Pakistan; **14:** Muguel Aleman (82), first civilian President of Mexico, dies; *Jame Van Der Zee* (96), world famous photographer, dies at Howard University Campus; **19:** *Jean Rey* (80), Belgian statesman and one of the founding fathers of European Community, dies in Strasbourg; **21:** *Kenneth Clark* (79), distinguished art historian and author of widely acclaimed book *Civilization*, dies in London; **23:** *Albert Claude* (84), Belgian scientist and winner of Nobel Prize in 1974, dies in Brussels; **25:** *Sydney Box* (76), English author and film producer, dies in Perth; *Hendrik Ruitenbeek* (55), author of more than 30 books on psychoanalysis, sociology and Freud, dies in New York; **26:** *Emperor Idriss* (93),former Libyan King, dies in MISR international hospital; **30:** *Arvid Ya Pelshe* (84), oldest member of ruling politburo, dies in Moscow; **31:** *Jack Dempsey* (87), noted world heavyweight boxing champion, dies in New York.

June 1: *Miss Anna Seghers* (82), dies in East Berlin; **2:** *Prince Charles of Belgium* (79), who ruled Belgium for six years as Prince Regent at the end of World War II, dies at Ostend, Brussels; **6:** *S. B. Herath* (60), Sri Lanka's food and co-operative minister, dies in London; **10:** *Liao Chengzhi* (70), a member of China's politburo, dies in Beijing; *Svend Pri* of Denmark (37), former all-England badminton champion, dies in Copenhagen; **12:** *Norma Shearer* (81), actress queen of Metro-Goldwyn-Mayer, dies in Los Angeles; **14:** *Alexei A. Surkov* (83), Russian noted novelist and poet, dies in Moscow; **19:** *Simha Ehrlich* (68), Israeli Deputy Premier, dies in Jerusalem; **22:** *Mr. Tambimuttu* (68) of Sri Lanka, literary ambassador extraordinary between East and West, dies in London; **25:** *Evan Charlton* (71), British ex-editor of *Statesman*, dies in London.

July 1: *R. Buckminster Fuller* (87), inventor and philosopher who designed the geodesic dome, dies in Los Angeles; **8:** *Vicky Morgan* (29), actress and mistress of multi-millionaire Alfred Bloomingdale, dies in Los Angeles; **11:** *Rose Macdonald* (67), mystery writer, dies at Pinecrest hospital, Santa Barbara; **25:** *Maxies Anderson* (48) and *Don Ida*, internationally known American balloonists, die by balloon crash at Schoenderling; **28:** *David Niven* (73), veteran British actor, dies in London; **29:** *Ivan Benediktov*, former Soviet Ambassador to India, dies in Moscow; *Luis Bunuel* (83), Spanish-born film producer, dies in Mexico.

August 2: *Hissene Habre*, President of Chad killed in fighting against rebel troops at Tripoli, Libya; **18:** *Sir Nikolaus Pevsner* (81), Leipzig-born art historian, dies at Hampstead, London; **21:** *Benigno "Ninoy" Aquino*, Filipino opposition leader, shot dead at Manila International airport.

September 10: *John Vorster* (67), former Prime Minister of South Africa, dies in Cape Town; Mrs. Norah Lofts (79), historical novelist, dies at St. Edmunds, England; **15:** *Beverley Nichols* (85), British author and journalist, dies in London; **19:** *Bruno Pittermann* (78), former Australian Socialist Party Chairman, dies in Vienna; **24:** *Mohammed Roem* (75), leader of Indonesian delegation at peace talks with Dutch in 1945, dies at Jakarta; **25:** Leopold III (81), abdicated King of Belgium, dies in Belgium; **27:** *Tino Rossi* (76), golden-voiced French singer, dies in France.

October 4: *Alexander Mikhailov* (95), well-known astronomer, dies in Leningrad; **6:** *Cardinal Terence Cooke* (62), Archdiocese of New York, dies in New York; **11:** *Sir Ralph Richardson* (80), British actor who acted more than 60 years, dies in London; **13:** *Desmond Doig* (62), noted British writer and artist, dies in Kathmandu; **14:** *Kiril Novikov* (78), first Soviet ambassador to India, dies in Moscow; **22:** *Paul Hardwick* (64), veteran Shakespearean actor, dies in London; **30:** Mrs. Lillian Carter (85), mother of President Jimmy Carter, dies in Georgia.

November 15: *John Le Mesurier* (71), who started British television series *Dad's Army*, dies in London; **21:** *Lynn Heinzerling* (77), news executive who covered World War II ahd 1961 Pulitzer Prize winner, dies at Elyria, Ohio; **25:** *Ms. Lotte Eisner* (87), one of the world's leading experts of expressionist German cinema, dies in Paris.

December 1: Richard Llewellyn, British novelist and playwright and author of *How Green Was My Valley*, dies in London; George Headley (74), former West Indies test cricketer, dies in Kingston; *Bernardo Zuleta* (54), Colombian lawyer and U.N. Undersecretary-General, dies in New York; **2 :** *Gen. David Oyite-Ojok*, chief of staff of Ugandan army, dies in helicopter crash in Naironi; **5 :** *Robert Aldrich*, film director, dies in Los Angeles; **6 :** *Umberto Terracini* (88), Italian senator and founder of Italian Communist Party, dies in Rome; **13 :** *Mary Renault* (78), renowned novelist and author of *The Last of the Wine*, dies in South Africa; **20 :** *Grigory Alexandrov* (80), Soviet film producter, dies in Moscow; **25 :** *Joan Miro* (90), Veteran Spanish painter, dies in Span.

GENERAL ELECTIONS

PARLIAMENT & ASSEMBLIES

As a Sovereign Democratic Republic, India has a bi-cameral Legislature—The Rajya Sabha (Council of States) and Lok Sabha (The House of the People). The President heads both.

Rajya Sabha: No. of seats: 244. Nominated by President: 12. Requirements for election: Citizenship of India and over 30 years of age. Not subject to dissolution. One third members retire every three years. Members indirectly elected through State legislatures.

Lok Sabha has 544 members, all elected through general election.

SEVENTH LOK SABHA POLL

The Sixth Lok Sabha was dissolved on August 22, 1979. The election to the Seventh Lok Sabha was the second mid-term poll. The first mid-term poll was the fifth general election in 1971.

The first day poll on January 3, 1980, in 18 States and 9 Union Territories, had 2,237 candidates in the field and 55 per cent of 148 million electorate in 244 Lok Sabha constituencies voted. January 3 was declared as a holiday in all constituencies going to the polls on that day. The second round of polling on January 6, covered 281 constituencies and parts of 17 others in 15 states.

Polling dates: Polling took place on January 3 and January 6, 1980 respectively in different States/Territories. Name of State/Territory, polling dates in brackets and number of constituencies to which elections were held respectively: Andhra Pradesh (6) 42; Assam (6) 3; Bihar (6) 54; Gujarat (3 & 6) 13 & 13; Haryana (3) 10; Himachal Pradesh (3) 4; Jammu & Kashmir (3 & 6) 3 & 3; Karnataka (3 & 6) 14 & 14; Kerala (3 & 6) 11 & 9; Madhya Pradesh (3 & 6) 24 & 16; Maharashtra (3 & 6) 26 & 22; Manipur (3 & 6) 1 & 1; Meghalaya (3) 2; Nagaland (3) 1; Orissa (3) 21; Punjab (3) 13; Rajasthan (3 & 6) 16 & 10; Sikkim (3) 1; Tamil Nadu (3 & 6) 19 & 20; Tripura (6) 2; Uttar Pradesh (3 & 6) 50 & 35; West Bengal (6) 42. The Union Territories went to the polls on 3rd January 1980.

Nominations: For the 529 Lok Sabha seats in 1980 7,151 candidates filed their nominations against 4,317 in 1977. Out of this 2,518 withdrew leaving 4,633 in the field. They were: Janata Party: 420; Lok Dal: 292; Congress (U): 210; Congress (I): 486; C.P.I.: 50; C.P.I.-M.: 60; State Parties: 106; and Independent: 2,736. 412 ex-M.P.s were also in the contest.

The largest number of candidates were from Uttar Pradesh—1,004 for 85 seats, followed by Bihar—594, Maharashtra—415 and Madhya Pradesh—359.

Election did not take place in 12 constituencies of Assam State and one in Meghalaya following an agitation for the postponement of the poll. Elections were countermanded in one Orissa and one West Bengal constituencies.

From Srinagar (Jammu & Kashmir) Farooq Abdullah of National Conference was declared elected unopposed.

Poll Clashes: Seven people lost their lives in poll clashes in various parts of the country. These clashes were reported from Andhra Pradesh, Madhya Pradesh, Uttar Pradesh and West Bengal.

Cost of Poll: The expenditure on the general election in 1952 was Rs. 104.5 million; 1957: Rs. 59.0 million; 1962: Rs. 73.1 million; 1969: Rs. 109.5 million; 1971: Rs. 144.3 million in 1977 it was Rs. 298.1 million. Actual expenditure on the 1980 Lok Sabha poll was Rs. 559.7 million out of which Rs. 117.10 million was spent on the revision of electoral rolls.

Electorate: The number of people allowed to vote was 173 million in first elections of 1952; 193 million in the second in 1957; 216 million in the third in 1962; 251 million in the fourth in 1967; 271 million in the fifth in 1971; 318 million in the sixth in 1977; and 361 million in 1980.

The following statement shows the total number of constituencies and number of electorate during 1977 and January 1980 respectively.

Name of State/ Union Territory	Total number of constituencies	Total number of electorate in 1977	Total number of electorate in 1980
Andhra Pradesh	42	27,374,565	30,463,076
Assam	14	7,189,580	8,537,497
Bihar	54	34,233,510	39,536,456
Gujarat	26	14,099,926	15,520,678
Haryana	10	5,690,976	6,784,732
Himachal Pradesh	4	1,918,151	2,269,406
Jammu & Kashmir	6	2,544,624	2,813,164
Karnataka	28	16,700,261	19,599,314
Kerala	20	11,350,840	13,125,279
Madhya Pradesh	40	22,505,193	25,266,988
Maharashtra	48	28,490,646	33,707,463
Manipur	2	784,484	869,686
Meghalaya	2	527,238	635,767
Nagaland	1	467,162	464,484
Orissa	21	12,626,873	13,804,670
Punjab	13	8,040,582	9,692,962
Rajasthan	25	15,172,042	17,686,973
Sikkim	1	122,696	117,640
Tamil Nadu	39	26,861,460	27,929,535
Tripura	2	863,877	1,055,935
Uttar Pradesh	85	51,674,319	57,837,823
West Bengal	42	25,052,735	29,289,875
Union Territories			
Andaman & Nicobar Islands	1	79,125	94,704
Arunachal Pradesh	2	216,564	264,402
Chandigarh	1	153,423	195,353
Dadra & Nagar Haveli	1	37,495	45,760
Delhi	7	2,585,674	3,082,279
Goa, Daman & Diu	2	469,295	510,258
Lakshadweep	1	18,750	21,205
Mizoram	1	197,475	220,810
Pondicherry	1	293,061	317,779

VOTES POLLED

Year	No. of Seats	No. of Electorate	No. of votes polled	% of votes polled
1	2	3	4	5
1952	489	173,213,635	80,709,202	45.67
1957	494	193,625,069	91,329,866	47.84
1962	494	217,693,197	119,904,315	55.42
1967	520	250,086,202	152,724,611	61.33
1971	518	274,094,493	151,536,802	55.29
1977	542	321,174,327	194,263,913	60.53
1980	542	361,751,971	196,237,432	55.50

Poll Percentage: The poll percentage in the country as a whole was 55.5 in the 1980 Lok Sabha election, compared to 60.53 in 1977, 55.29 in 1971, 61.33 in 1967 and 55.42 in 1962.

Lok Sabha Strength: The delimitation of parliamentary constituencies throughout the country has been completed and the strength of the Lok Sabha has been increased to 542.

The latest distribution of the Lok Sabha seats in different States is: Andhra (42), Assam (14), Bihar (54), Gujarat (26), Haryana (10), Himachal Pradesh (4), Jammu and Kashmir (6), Karnataka (28), Kerala (20), Madhya Pradesh (40), Maharashtra (48), Manipur (2), Meghalaya (2), Nagaland (1), Orissa (21), Punjab (13), Rajasthan (25), Sikkim (1), Tamil Nadu (39), Tripura (2), Uttar Pradesh (85) and West Bengal (42).

Union territories: Andaman and Nicobar Islands (1), Arunachal Pradesh (2), Chandigarh (1), Dadra and Nagar Haveli (1), Delhi (7), Goa, Daman and Diu (2), Lakshadweep (1), Mizoram (1) and Pondicherry (1).

Women Candidates: There were 142 women who contested the 1980 Lok Sabha elections of whom 28 were elected.

Scheduled Castes/Tribes: Out of 542 seats in the Lok Sabha 119 are reserved seats—79 for Scheduled Castes and 40 for Scheduled Tribes. State-wise the number of seats reserved for Scheduled Castes/Scheduled Tribes respectively are: Andhra Pradesh (6:2); Assam (1:2); Bihar (8:5); Gujarat (2:4); Haryana (2:—); Himachal Pradesh (1:—); Karnataka (4:—); Kerala (2:—); Madhya Pradesh (6:9); Maharashtra (3:4); Manipur (—:1); Orissa (3:5); Punjab (3:—); Rajasthan (4:3); Tamil Nadu (7:—); Tripura (—:1); Uttar Pradesh (18:—); West Bengal (8:2); Dadra and Nagar Haveli (—:1); Delhi (1:—); Lakshadweep (—:1).

The reserved seats in the assemblies of the States and Union Territories together are 539 for Scheduled Castes and 282 for Scheduled Tribes respectively.

LOK SABHA GENERAL ELECTIONS—PARTY POSITION

Party	First General Elections 25.10.1951		Second General Elections 24.2.1957 to 9.6.1957		Third General Elections 16.2.1962 to 6.5.1962		Fourth General Elections 15.2.1967 to 28.2.1967		Fifth General Elections 1.3.1971 to 13.3.1971		Sixth General Elections 16.3.1977 to 20.3.1977		Seventh General Elections 3.1.1980 & 6.1. 980	
	Seats Contested	Seats Won	Seats Contested	Seats Won	Seats Contested	Seats Won	Seats Contested	Seats Won	Seats Contested	Seats Won	Seats Contested	Seats Won	Seats Contested	Seats Won
Congress (I)	469	354	483	366	485	358	452	280	410	355	493	153	486	351
PSP	400	20	175	18	168	12	110	13	60	—	N.A.	—	—	—
CPI	69	26	115	29	137	29	101	23	71	24	91	7	50	11
Jan Sangh	91	3	103	4	196	14	235	36	162	16	*	*	*	*
Others (Ind.)	946	83	580	71	716	44	670	44	726	44	1,222	27	2,736	6
Swatantra	—	—	—	—	173	18	177	42	60	8	—	—	—	—
Republican	—	—	—	—	68	3	66	1	46	—	2	2	—	—
CPI (M)	—	—	—	—	—	—	57	19	50	26	53	22	60	35
SSP	—	—	—	—	—	—	119	23	89	3	*	*	*	1
Akali Dal	—	—	—	—	—	—	—	—	13	1	—	8	—	—
V.H.P.	—	—	—	—	—	—	—	—	3	—	—	—	—	—
Congress (O)	—	—	—	—	—	—	—	—	205	11	*	*	*	*
Congress (U)	—	—	—	—	—	—	—	—	—	—	—	—	210	13
Muslim League	—	—	—	—	—	—	—	—	10	3	N.A.	2	—	2
Janata Party	—	—	—	—	—	—	—	—	—	—	423	299	420	31
AIADMK	—	—	—	—	—	—	—	—	—	—	N.A.	19	N.A.	N.A.
Lok Dal	—	—	—	—	—	—	—	—	—	—	—	—	292	41

* Constituent of Janata Party. N.A.: Not Available.

VOTES POLLED BY DIFFERENT PARTIES DURING THE 1977 & 1980 ELECTIONS

Parties	Votes won		Percentage	
	1977	1980	1977	1980
Congress (I)	62,789,348@	83,526,345	34.35	42.56
Janata Party	81,177,093	37,236,041	43.06	18.97
Lok Dal		18,546,358		9.45
Communist Party	5,201,832	5,122,172	2.76	2.61
Communist Party (Marxist)	8,113,659	11,867,796	4.30	6.05
Akali Dal	2,373,331	1,396,412	1.26	0.71
Dravida Munnetra Kazagham	3,224,654	4,236,537	1.71	2.16
All-India Anna Dravida Munnetra Kazhagam	5,579,043	4,674.064	2.96	2.83
Congress (U)		10.399,533		5.30
Independents	10,714,144	12,847,404	5.68	6.55
Others	7,380,584	6,384,770	3.92	3.25

@ United Congress.

General Elections to State Assemblies were held in Bihar, Haryana, Himachal Pradesh, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal and Union Territories of Delhi, Goa, Daman & Diu and Pondicherry in June 1977.

General elections were held in the States of Andhra Pradesh, Assam, Karnataka, Maharashtra, Meghalaya and Union Territory of Arunachal Pradesh on February 25, 1978 and to the States of Kerála and Manipur and to the Territories of Arunachal Pradesh, Goa and Pondicherry in January 1980.

On February 17, 1980, the assemblies of the States of Bihar, Gujarat, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu and Uttar Pradesh were dissolved. The election was to take place on May 27 and 30, 1980.

Assembly poll in four States of Haryana, Himachal Pradesh, Kerala and West Bengal were held on May 15, 1982. Election to Nagaland Assembly was held on Nov. 10, 1982.

Elections to the State Assemblies of Andhra Pradesh, Karnataka and Tripura were held on Jan. 5, 1983.

Highest Majority: The highest winning majority was 214,763 secured by Jatiram Barve (Cong.-I), elected from Ramtek constituency in Maharashtra. He polled 273,957 votes against 59,194 polled by his nearest rival R. H. Deshmukh of Janata Party. Out of 650,457 eligible voters only 395,366 cast their votes.

Lok Sabha Speakers: G. V. Mavlankar, 1952-56; M. Ananthasayanam Ayyangar, 1956-62; Hukam Singh, 1962-67; N. Sanjiva Reddy, 1967-69; G. S. Dhillon, 1969-75; Bali Ram Bhagat, 1975-77; N. Sanjiva Reddy, Mar.-July 1977; K. S. Hegde, July 1977-Aug. 1979; Balram Jhakar, since Jan. 1980.

States with Bi-cameral Legislatures: Following are the States which have an Assembly and a Legislative Council. All the other States have only a Legislative Assembly. Bihar, Maharashtra, Jammu and Kashmir, Karnataka, Tamil Nadu and Uttar Pradesh. Andhra Pradesh Council has been abolished from March 25, 1983.

Composition of Assembly: The number of elective seats in the State assemblies and the legislative bodies of Union territories has gone up. It is as follows (the figures in brackets show the seats they had on January 1, 1973):

Andhra Pradesh 295 (287), Assam 126 (114), Bihar 325 (318), Gujarat 182 (168), Haryana 90 (81), Himachal Pradesh 68 (68), Jammu and Kashmir 76 (75), Karnataka 225 (216), Kerala 140 (133), Madhya Pradesh 321 (296), Maharashtra 289 (270), Manipur 60 (60), Meghalaya 60 (60), Nagaland 60 (52), Orissa 146 (140), Punjab 117 (104), Rajasthan 200 (184), Sikkim 32 (—), Tamil Nadu 234 (234), Tripura 60 (60), Uttar Pradesh 426 (425), West Bengal 295 (280), Arunachal Pradesh 33 (—), Goa 30 (30), Mizoram 33 (30), Pondicherry 30 (30), Delhi Metropolitan Council 56 (56).

The total seats in the assemblies are 4,019 as against 3,771 in 1973.

Legislative Council: The strength of the Council should be one third of the total membership of the Assembly but not less than 40.

Election to Councils: *One third* of its members are elected by the municipalities, district boards and other local authorities; *One twelfth* by the graduates of the universities of the territory; *One twelfth* by the teachers of institutions not lower than secondary school; *One third* by members of the Legislative Assembly and, the remaining few are nominated by the Governor of the State.

Assembly By-Elections: Polling for by-elections in 7 constituencies in Uttar Pradesh (3), Sikkim (2), Karnataka (1) and Gujarat (1) was held on January 3, 1980. Also 19 assembly by-elections in eight States were held on January 6, 1980 with the final round of Lok Sabha voting.

There were 123 candidates in the fray for 5 seats in Andhra Pradesh, 3 in Bihar, 2 in Gujarat, 1 in Karnataka, 3 in Madhya Pradesh, 1 in Maharashtra, 3 in Tamil Nadu and one in West Bengal.

In the elections which took place on May 27 and 30, 1980 for the 9 State Assemblies dissolved on Feb. 17, 1980 Congress (I) got majority in eight States. In Tamil Nadu AIADMK was successful. Name of State, total No. of Constituencies and seats won by majority party is given below. Punjab: 117; Cong. (I) 63; Rajasthan: 200; Cong. (I) 133; Gujarat: 182; Cong. (I) 140; Madhya Pradesh: 320; Cong. (I) 246; Maharashtra: 288; Cong. (I) 186; Uttar Pradesh: 425; Cong. (I) 306; Bihar: 324; Cong. (I) 155; Orissa: 147; Cong. (I) 117; Tamil Nadu: 234, AIADMK 128.

1981 By-Elections: In the by-elections to six Lok Sabha seats, Congress (I) won in five of them—Amethi, Allahabad, Bareilly, Garhwal and Mirzapur in Uttar Pradesh and C.P.I. (M) won in Serampore in West Bengal. Simultaneous polling took place in 23 assembly constituencies in four States—eight each in Uttar Pradesh and West Bengal, six in Bihar and one in Karnataka. Of the assembly seats Congress (I) won 15—seven in U.P., five in Bihar, two in W. Bengal and one in Karnataka—C.P.I. (M) won five of the eight seats, C.P.I. won in one and Independents were elected in two seats—one each in U.P. and Bihar respectively.

1982 By-Elections: In the by-elections to five Lok Sabha seats—Lohardaga in Bihar, Jabalpur in M.P., Bayana (S.C.) constituency in Rajasthan, Periakulam in Tamil Nadu and Garhwal in U.P.—Cong. (I) won in two. Jabalpur seat was won by BJP and Periakulam seat was won by AIADMK. Garhwal seat was won by DSP—H. N. Bahuguna.

By-elections to the four Assembly seats in Mizoram was held on May 15, 1982; and in Bihar, Gujarat and Punjab were held on May 19, 1982. Andhra Pradesh, Karnataka and Maharashtra had by-elections for Legislative Councils also.

Mid-term Assembly elections were held in Haryana, Himachal Pradesh, Kerala and West Bengal on May 19, 1982. Nagaland Asembly poll was held on Nov. 10, 1982.

1983 Mid-term Elections: Mid-term elections were held on January 5, 1983 for State assemblies of Andhra Pradesh, Karnataka and Tripura. Polls in Assam were held on February 14, 17 and 20, Meghalaya on February 17 and Delhi Metropolitan Council on February 5, 1983.

Shillong Lok Sabha Constituency poll was held on February 17, 1983.

1983 By-Elections: Two by-elections were held for Rajya Sabha. Vishwanath Pratap Singh, Congress (I) candidate, was elected from Uttar Pradesh Vidhan Sabha constituency in the by-election held on July 15, while Dr. Sarojini Mahishi of Janata Party was declared elected from Karnataka legislative assembly seat in the by-election held on Sept. 2.

By-elections to Lok Sabha were held on November 14 and December 23. Shalinitai Patil was elected from the Sangli constituency in the Nov. by-election. The December by-election covered three Parliamentary constituencies of Bettiah in Bihar, Sonepat in Haryana and Bulandshahr in Uttar Pradesh. The Bettiah seat was won by CPI candidate Pitambar Singh, Sonepat went to Rizak Ram of Congress (I) while the Bulandshahr seat was captured by Banarsi Das of Janata Party.

The Karnataka legislative council by-elections held on March 31 returned two Janata candidates.

By-election to the Phuldungsei constituency of the Mizoram legislative assembly was held on April 8 while the Kanakpura assembly poll in Karnataka was held on May 15.

Assembly by-elections were also held on December 23 for 11 constituencies covering five States of Bihar, Haryana, Rajasthan, Uttar Pradesh and West Bengal. Out of these Congress (I) captured 8 seats, the most notable being the victory of Bihar Chief Minister Chandra Shekhar Singh from Banka constituency. The Lok Dal wrested one seat while Rashtriya Sanjay Manch won one seat.

1984 By-Elections: The largest batch of constituencies went for by-election on May 20 and 21, 1984. The 25 assembly seats were spread over 13 States of Andhra Pradesh, Bihar, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Nagaland, Rajasthan, Tamil Nadu and West Bengal. Congress (I) won 11 of the seats while Bharatiya Janata Party had three seats, AIADMK won one seat, Congress (J) one, DMK two, Forward Bloc one, Jharkhand Party one, Lok Dal one, Muslim Majlis one, Rashtriya Sanjay Manch one and Telugu Desam two seats.

The Mizoram assembly elections were held on April 25 while the Uttar Pradesh Council elections were held on May 1.

1984 Biennial Elections to Rajya Sabha Sabha was held on March 21 and 29 and involved 72 seats from 17 states. The party position was Congress 47, Janata Party 4, NDA 4, Telugu Desam 5, CPM 3, CPI 1, AIADMK 4, DMK 1, Forward Bloc 1, Independent 1, Combined Opposition (Gujarat) 1.

RAJYA SABHA

(As on September 28, 1983)

Chairman: Mohammad Hidayatullah; *Deputy Chairman:* Shyam Lal Yadav; *Secretary-General:* Sudarshan Agarwal; *Additional Secretary:* Smt. K. K. Chopra.

Total No. of Seats: 244.

An estimate of party position in the Rajya Sabha is: Congress (I) 130; C.P.I.(M) 15; Janata: 21; B.J.P.: 14; A.I.A.D.M.K.: 9; Lok Dal (C): 6; C.P.I.: 5; D.M.K.: 4; Congress (S): 3; Akali Dal: 3; National Conference: 3; R.S.P.: 2; Forward Bloc.: 2; D.S.P.: 1; Muslim League: 1; Kerala Congress: 1; U.D.F.: (Nagaland): 1; Janavadi: 1; R.P.I. (Khobragade); 1; Socialist: 1; Janata (G) 1; Telugu Desam:1; Independents: 7; Nominated: 8*; Vacancies: 3; (Delhi: 2; Pondicherry: 1); Number of women Members: 26.

Andhra Pradesh-18: Syed Rahmat Ali, (Cong.-I); B. Krishna Mohan (Cong.-I); A. S. Chowdhari (Cong.-I); Buddha Priya Maurya (Cong.-I); Smt. Roda Mistry (Cong.-I); N. P. Chengalraya Naidu (Cong.-I); G. Swamy Naik (Cong.-I); K. L. N. Prasad (Cong.-I); S. B. Ramesh Babu (Cong.-I); Prof. B. Ramachandra Rao (Cong.-I); K. V. R. S. Bala Subba Rao (Cong.-I); Rayapati Samba Siva Rao (Cong.-I); V. C. Kesava Rao (Cong.-I); Adinarayana Reddy (Cong.-I); B. Satyanarayan Reddy (Telugu Desam); P. Babul Reddy (Janata); T. Chandrasekara Reddy (Cong.-I); Ghouse Mohiuddin Sheikh (Cong.-I).

Assam-7: Biswa Goswami (Janata); Dinesh Goswami (Ind.); Bijoy Krishna Handique (Cong.-I); Robin Kakati (Janata); Ajit Kumar Sharma (Soc.); Dharanidhar Basumatari (Cong.-I); Baharul Islam (Cong.-I).

Bihar-22: Ashwani Kumar (B.J.P.); Ramchandra Bharadwaj (Cong.-I); Ram Lakhan Prasad Gupta (B.J.P.); Shiva Chandra Jha (Janata); Sitaram Kesri (Cong.-I); Dr. Mahabir Prasad (Janata); Mahendra Mohan Mishra (Cong.-I); Smt. Manorama Pandey (Cong.-I); Ram Bhagat Paswan (Cong.-I); Rafique Alam (Cong.-I); Dayanand Sahaya (Cong.-I); Syed Shahabuddin (Janata); Yogendra Sharma (C.P.I.); Bhishma Narain Singh (Cong.-I); J. K. P. N. Singh (Cong.-I); Smt. Pratibha Singh (Cong.-I); Indradeep Sinha (C.P.I.); Suraj Prasad (C.P.I.); Hukumdeo Narayan Yadav (Janata); Jagdambi Prasad Yadav (B.J.P.); Ramanand Yadav (Cong.-I); Chandan K. Bagchi (Cong.-I).

Gujarat-11: Smt. Kumudben Manishankar Joshi (Cong.-I); Ibrahim Kalaniya (Cong.-I); Harisinh Bhagubava Mahida (Cong.-I); Yogendra Makwana (Cong.-I); Kishor Mehta (Ind.); Pranab Mukherjee (Cong.-I); Ghanshyambhai Oza (Janata); Vithalbhai Motiram Patel (Cong.-I); Ramsingbhai Pataliyabhai Rathvakoli (Cong.-I); Mirza Irshadbaig Aiyubbaig (Cong.-I); Manubhai Patel (Janata).

Haryana-5: Sushil Chand Mohunta (Janata); Hari Singh Nalwa (Cong.-I); Dr. Sarup Singh (LD-C); Sultan Singh (Cong.-I); Chand Ram (Cong.-I).

Himachal Pradesh-3: Smt. Usha Malhotra (Cong.I); Smt. Mohinder Kaur (B.J.P.); Roshanlâl (Cong.-I.).

Jammu and Kashmir-4: Ghulam Rasool Matto (NC); Dharam Chander Prashant (Ind.); Sharief-ud-Din Shariq (NC); Gulam Mohi-ud-Din Shawl (NC).

Karnataka-12: Smt. Margaret Alva (Cong.-I); M. Basavaraju (Cong.-I); Smt. Monika Das (Cong.-I); H. Hanumanthappa (Cong.-I); B. Ibrahim (Cong.-I) F. M. Khan (Cong.-I); Maqsood Ali Khan (Cong.-I); Veershetty Moglappa Kushnoor (Cong.-I); M. Maddanna (Cong.-I); M. Rajagopal (Cong.-I); Satchidananda (Cong.-I); Dr. (Smt.) Sarojini Mahishi (Janata).

Kerala-9: T. Basheer (Cong.-I); K. Gopalan (Janata (G)); C. Haridas (Cong.-I); M. M. Jacob (Cong.-I); O. J. Joseph (C.P.I. (M); B. V. Abdulla Koya (M.L.); K. Chathunni Master (C.P.I. (M); K. Mohanan (C.P.I. M(M); K. C. Sebastian (K.C.).

Madhya Pradesh-16: Lal K. Advani (B.J.P.); Baleshwar Dayal (Janata); Hansraj Bhardwaj (Cong.-I); Nand Kishore Bhatt (Cong.-I); J. K. Jain (Cong.-I); Pyarelal Khandelwal (B.J.P.); Dr. Bhai Mahavir (B.J.P.); Radhakishan Malaviya (Cong.-I); Bhagatram Manhar (Cong.-I); Ladli Mohan Nigam (Janata); Pravin Kumar Prajapati (Cong.-I.); Smt. Ratan Kumari (Cong.-I.); Smt. Vijaya Raje Scindia (B.J.P.); Keshavprasad Shukla (Cong.-I); Smt. Maimoona Sultan (Cong.-I); Shrikant Verma (Cong.-I).

Maharashtra-19: Smt. Sushila Shankar Adivarekar (Cong.-I); Jagannath Sitaram Akarte (Cong.-I); Sadashiv Bagaitkar (Janata); Ganapat Hiralal Bhagat (Ind.); Murlidhar Chandrakant Bhandare (Cong.-I); Smt. Premilabai Dajisaheb Chavan (Cong.-I); S. W. Dhabe (Cong.-S); Dr. Joseph Leon D'Souza (Cong.-I); Dr. (Smt.) Najma Heptulla (Cong.-I); Vithalrao Madhavrao Jadhav (Cong.-I); Suresh Kalmadi (Cong.-S); Miss Saroj Khaparde (Cong.-I); B. D. Khobragade (R.P.I.) (Khobragade); A. G. Kulkarni (Cong.-S); Dr. Shanti G. Patel (Janata); Dinkarrao Govindrao Patil (Cong.-I); N. K. P. Salve (Cong.-I); Vishvajit Prithvijit Singh (Cong.-I.); Dr. Rafiq Zakaria (Cong.-I.).

Manipur-1: Ng. Tompok Singh (Cong.-I).

Meghalaya-1: Alexander Warjri (Ind.).

Nagaland-1: T. Aliba Imti (U.D.F.) (Nagaland).

Orissa-10: Banamali Babu (Cong.-I); Gaya Chand Bhuyan (Cong.-I); Jagadish Jani (Cong.-I); Dhaneshwar Majhi (Janata); Harekrushna Mallick (Janata); Surendra Mohanty (Cong.-I); Shyam Sundar Mohapatra (Cong.-I); Akshay Panda (Cong.-I); B. C. Pattanayak (Cong.-I); Santosh Kumar Sahu (Cong.-I).

Punjab-7: Smt. Amarjit Kaur (Cong.-I); Harvendra Singh Hanspal (Cong.-I); Sat Paul Mittal (Cong.-I); Dr. (Smt.) Rajinder Kaur (A.D.); Harkishan Singh Surjeet (C.P.I.-M); Sardar Jagdev Singh Talwandi (A.D.); Sardar Gurcharan Singh Tohra (A.D.).

Rajasthan-10: Mohammed Usman Arif (Cong.-I); Hari Shankar Bhabhra (B.J.P.); Bhim Raj (Cong.-I); Bhuvnesh Chaturvedi (Cong.-I); (Molana) Asrarul Haq (Cong.-I); Jaswant Singh (B.J.P.); Dhuleshwar Meena (Cong.-I); Ram Niwas Mirdha (Cong.-I), R. R. Morarka (Janata); Natha Singh (Cong.-I).

Sikkim-1: Leonard Soloman Saring (Cong.-I).

Tamil Nadu-18: P. Anbalâgan (AIADMK); L. Ganesan (D.M.K.); V. Gopalsamy (D.M.K.); D. Heerachand (AIADMK); Aladi

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*Excludes 4 members who have joined Cong. (I).

Aruna *alias* V. Arunachalam (AIADMK); M. Kalyanasundaram (C.P.I.); M. Kadharsha (AIADMK); Murasoli Maran (D.M.K.); G. K. Moopanar (Cong.-I); M. Moses (Cong.-I); Dr. (Smt.) Sathiavani Muthu (AIADMK); M. S. Ramachandran (Cong.-I); R. Ramakrishnan (AIADMK); Era Sambasivam (AIADMK); G. Varadaraj (AIADMK); Era Sezhiyan (Janata); V. Venka (D.M.K.); R. Mohanarangam (AIADMK).

Tripura-1: Smt. Ila Bhattacharya (C.P.I.-M).

Uttar Pradesh-34: Hashim Raza Abidi Allahabadi (Cong.-I); G.C. Bhattacharya (D.S.P.); Dharmavir (Cong.-I); Ghan Shyam Singh (Cong.-I); J. P. Goyal (L.D.-C); Syed Ahmad Hashmi (Janavadi); Krishna Nand Joshi (Cong.-I); Smt. Krishna Kaul (Cong.-I); Khurshed Alam Khan (Cong.-I); Piarelal Kureel Urf Piarelal Talib Unnavi (Cong.-I); Ram Naresh Kushawaha (L.D.-C); Lakhan Singh (BJP); Asad Madani (Cong.-I); Satya Pal Malik (L.D.-C); Jagdish Prasad Mathur (B.J.P.); Kalraj Mishra (B.J.P.); Narendra Singh (Cong.-I); Sudhakar Pandey (Cong.-I); K. C. Pant (Cong.-I); Ram Pujan Patel (Cong.-I); Kalpnath Rai (Cong.-I); Rameshwar Singh (L.D.-C); Chowdhary Ram Sewak (Cong.-I); Syed Sibtey Razi (Cong.-I); Abdul Rehman Sheikh (L.D.-C); Dr. Sankata Prasad (Cong.-I); Dr. M. M. S. Siddhu (Janata); Dr. Rudra Pratap Singh (Cong.-I); Sukhdev Prasad (Cong.-I); Surendra Mohan (Janata); Shanti Tyagi (Cong.-I); Shyam Lal Yadav (Cong.-I); P. N. Sukul (Cong.-I); Vishwanath Pratap Singh (Cong.-I).

West Bengal-16: Debendra Nath Barman (C.P.I.-M); Nepaldev Bhattacharjee (C.P.I.-M); Prof. Sourendra Bhattacharjee (R.S.P.); Amarprosad Chakraborty (F.B.); Nirmal Chatterjee (C.P.I.-M); Arabinda Ghosh (C.P.I.-M); Sangdopal Lepcha (C.P.I.-M); Ramkrishna Mazumder (F.B.); Sankar Prasad Mitra (Ind.); Santosh Mitra (C.P.I.-M); Smt. Kanak Mukherjee (C.P.I.-M); Makhan Paul (R.S.P.); Kalyan Roy (C.P.I.); Sukomal Sen (C.P.I.-M); Syed Shahedullah (C.P.I.-M); Dipen Ghosh (C.P.I.-M).

Arunachal Pradesh-1: Ratan Tama (Cong.-I).

Delhi-3: Jagannathrao Joshi (B.J.P.); Vacant: 2.

Mizoram-1: Lalsawia (Ind.).

Pondicherry-1: Vacant.

Nominated-12: Dr. Malcolm S. Adiseshiah; Hayat Ulla Ansari; Madan Bhatia; *Smt. Maragatham Chandrasekhar; Prof. (Mrs.) Asima Chatterjee; *V. C. Ganesan; Smt. Fathema Ismail; Pandurang Dharmaji Jadhav; Khushwant Singh; *Dr. Lokesh Chandra; *Scato Swu; V. N. Tiwari.

LOK SABHA

Speaker: Bal Ram Jakhar; *Dy. Speaker:* G. Lakshmanan; *Secretary:* Avtar Singh Rikhy.

Seats: 544; *Party Position* (as on 31.8.83): Congress (I): 355; C.P.I. (M): 36; Lok Dal: 25; D.M.K.: 14; B.J.P.: 16; Congress (S): 5; Janata: 21; C.P.I.: 12; D.S.P.: 9; R.S.P.: 4; Forward Bloc: 3; Muslim League: 3; J & K National Conference: 3; A.I.A.D.M.K.: 3; Janavadi: 2; Congress (J): 2; Unattached: 16; T.D.P.: 2; Vacant: 12. No. of Women: 30.

ANDHRA PRADESH—42: G. Narasimha Reddy (Cong.-I.), (*Adilabad*); Kusuma Krishna Murthy (Cong.-I.), (*Amalapuram—S.C.*); S.R.A.S. Appalanaidu (Cong. -I.), *(Anakapalli);* Darur Pullaiah (Cong.-I.), (*Anantapur*); P. Ankineedu Prasada Rao (Cong.-I.), (*Bapatla*); Smt. B. Radhabai Ananda Rao (Cong.-I.), *(Bhadrachalam—S.T.)*; P.V. Gajapati Raju (Cong.I.), (*Bobbili*); P. Rajagopal Naidu (Cong.-I.), (*Chittoor*); .K. Obul Reddy (Cong.-I.), (*Cuddapah*); Chitturi Subbarao Chowdary (Cong.-I.), (*Eluru*); Prof. N. G. Ranga (Cong-I.), (*Guntur*); P. V. Narasimha Rao (Cong.-I.), (*Hanamkonda*); P. Bayappa Reddy (Cong.-I.), (*Hindupur*); K. S. Narayana (Cong.-I.), (*Hyderabad*); M. S. Sanjeevi Rao (Cong.-I.), (*Kakinada*); M. Satyanarayana Rao (Cong.-I.), (*Karimnagar*); J. Kondala Rao (Cong.-I.), (*Khammam*): K. Vijaya Bhaskara Reddy (Cong.-I.), (*Kurnool*); Ankineedu Maganti (Cong.-I.), *(Machilipatnam);* Mallikarjun (Cong. I), *(Mahubnagar)*; Mrs. Indira Gandhi (Cong. I.), *(Medak)*; G. S. Reddy (Cong.-I.), (*Miryalguda*); Mallu Anantha Ramulu (Cong.-I.), (*Nagar Kurnool—S.C.*); T. Damodar Reddi (Cong.-I.), (*Nalgonda*); P. Venkata Subbaiah (Cong.-I.), (*Nandyal*); Subbash Chandra Bose Alluri (Cong.-I.), (*Narasapur*); K. Brahmananda Reddy (Cong.-I.), (*Narasaraopet*); P. Penchalaiah (T.D.P.), (*Nellore—S.C.*); M. Rama Gopal Reddy (Cong.-I.), (*Nizamabad*); P. Venkata Reddy (Cong.-I.), (*Ongole*); V. Kishore Chandra S. Deo (Cong.-S), (*Parvathipuram—S.T.*); Vacant (*Peddapalli—S.C.*); S. B. Pattabhirama Rao (Cong.-I.), (*Rajahmundry*); P. Parthasarathi (Cong.-I.), (*Rajampet*); P. Shiva Shankar (Cong.-I.), (*Secunderabad*); N. Yelliah (Cong.-I.), (*Siddipet—S.C.*); B. Rajagopala Rao (Cong.-I.), (*Srikakulam*); M. Nageswara Rao (Cong.-I.), (*Tenali*); Pasala Penchalaiah (Cong.-I.) (*Tirupathi—S.C.*); Mrs. Chennupati Vidya (Cong.-I.), (*Vijayawada*); K. A. Swami (Cong.-I.) (*Visakhapatnam*); M. Kamaluddin Ahmed (Cong.-I.) (*Warangal*).

ASSAM—14: Biren Singh Engti (Cong.-I.), *(Autonomous Dist.—S.T.)*; Nurul Islam (Cong.-I.) (*Dhubri*); Bhubaneswar Bhuyan (Cong.-I.), (*Gauhati*); Taran Gogoi (Cong.-I.) (*Jorhat*); Bishnu Prasad (Cong.-I.), (*Kaliabor*); Nihar Ranjan Laskar (Cong.-I.), *(Karimganj)*; Sontosh Mohan Dev (Cong.-I.), *(Silchar)*. Vacant:7.

BIHAR—54: D. L. Baitha (Cong.-I.), (*Araria—S.C.*); Chandradeo Prasad Verma (Janata), (*Arrah*); S. N. Sinha (J.P.), *(Aurangabad)*; Bhola Raut (Cong.-I.), (*Bagaha—S.C.*); Surya Narayan Singh (C.P.I.), (*Ballia*); Vacant (*Banka*); Dharambir Sinha (Cong.-S.), (*Barh*); Mrs. Krishna Sahi (Cong.-I.), (*Begusarai*); Pitambar Singh (C.P.I.), (*Bettiah*); Bhagwat Jha Azad (Cong.-I.), (*Bhagalpur*); Tapeshwar Singh (Cong.-I.), (*Bikramganj*); K. K. Tiwari (Cong.-I.), (*Buxar*); Satyadeo Sinha (Cong.-I.), (*Chapra*); Ranjit Singh (Cong.-I.), (*Chatra*); Harinath Mishra (Cong.-I.), *(Darbhanga)*; A. K. Roy (U.A.), *(Dhanbad)*, Shiby Soren (U.A.), (*Dumka—S.T.*); Ram Swaroop Ram (Cong.-I.), (*Gaya—S.C.*); Bindeshwari Dubey (Cong.-I.), (*Giridhi*); Samin Uddin (Cong.-I.), (*Godda*); Nagina Rai (Cong.-I.), (*Gopal Ganj*); Ram Vilas Paswan (Janata), (*Hajipur—S.C.*); Dr. B. N. Singh (Cong.-I.), (*Hazaribagh*); R. P. Sarangi (B.J.P.), (*Jamshedpur*); Mahendra Prasad (Cong.-I.), (*Jehanabad*); Dhaniklal Mandal (Janata), (*Jhanjharpur*); Tariq Anwar (Cong.-I.), *(Kathihar);* Satish Prasad Singh (Cong. I.), *(Khagaria)*; Nirel Enem Horo (U.A.) *(Khunti—S.T.)*; Jamilur Rahman (Cong.-I.), *(Kishanganj)*; R. L. P. Verma (B.J.P.), (*Koderma*); Smt. Sumati Oraon (Cong.-I.), (*Lohardaga—S.T.*); Rajindra Pd. Yadav (Cong.-S.), (*Madhepura*); Bhogendra Jha (C.P.I.), (*Madhubani*); Krishna Pratap Singh (Cong.-I.), (*Maharajganj*); D. P. Yadav (Cong.-I.), (*Monghyr*); Kamala Mishra Madhukar (C.P.I.), (*Motihari*); George Fernandes (Janata), (*Muzaffarpur*); Vijay Kumar Yadav (C.P.I.), (*Nalanda*); Kunwar Ram (Cong.-I.), (*Nawadah—S.C.*); Km. Kamala Kumisari (Cong.-I.), (*Palamau—S.C.*); Ramavtar Shastri (C.P.I.), (*Patna*); Mrs. Madhuri Singh (Cong.-I.), (*Purnea*); Seth Hembram (Cong.-I.), (*Rajmahal—S.T.*); Shiv Prasad Sahu (Cong.-I.), (*Ranchi*); Baleshwar Ram (Cong.-I.), (*Rosera—S.C.*); Kamal Nath Jha (Cong.-I.), (*Saharsa*); Prof. Ajit Kumar Mehta (Janata), *(Samastipur)*; Jagjivan Ram (Cong.-J.), (*Sasaram—S.C.*); Mrs. Ram Dulari Sinha (Cong.-I.), (*Sheahar*); Bagun Sumbrui (Cong.-I.), (*Singhbhum—S.T.*); B. R. Bhagat (Cong.-I.),

*Joined Congress(I) Party in the Rajya Sabha.

(*Sitamarhi*); Mohammed Yusuf (Cong.-I.), (*Siwan*); Smt. Kishori Sinha (J.P.), (*Vaishali*).

GUJARAT—26: Maganbhai Barot (U.A.) (*Ahmedabad*); Navin Ravani (Cong.-I.), (*Amreli*); Ishwarbhai Khodabhai Chavda (Cong.-I.), (*Anand*); Bheravadan K. Gadhavi (Cong.-I.), (*Banaskantha*); R.P. Gaekwad (Cong.-I.), (*Baroda*); G. B. Gohil (Cong.-I.), (*Bhavnagar*); Ahmed M. Patel (Cong.-I.), (*Broach*); Uttambhai H. Patel (Cong.-I.), (*Bulsar*); Amarsinh Rathawa (Cong.-I.), (*Chhota Udepur—S.T.*); Narsinh Makwana (Cong.-I.), (*Dhandhuka—S.C.*); Somjibhai Damor (Con.-I.), (*Dohad—S.T.*); Amrit Patel (Cong.-I.), (*Gandhinagar*); Jaideep Singh (Cong.-I.), (*Godbra*); Daulatsinhji Jadeja (Cong.-I.), (*Jamnagar*); Mohanlal Patel (Cong.-I.), *(Junagadh)*; Ajit Sinh Dabhi (Cong.-I.). (*Kaira*); Natvarsinh Solanki (Cong.-I.), (*Kapadvanj*); Dr. Mahipatray Mehta (U.A.), (*Kutch*); Chhitubhai Gamit (Cong.-I.), (*Mandvi—S.T.*); Motibhai R. Chaudhary (J.P.), (*Mehsana*); Hiralal R. Parmar (Cong.-I.) (*Patan—S.C.*); Bharat Kumar Maldevji Odedra (Cong.-I.), *(Porbandar)*; Ramjibhai Mavani (Cong.-I.) (*Rajkot*); Shantibhai Patel (Cong.-I.) (*Sabarkantha*); C. D. Patel (Cong.-I.), (*Surat*); Digvijay Sinh (Cong.-I.), (*Surendranagar*).

HARYANA—10: Suraj Bhan (B.J.P.), (*Ambala—S.C.*); Bansi Lal (Cong.-I.), (*Bhiwani*); Tayyab Hussain (Cong.-I.), (*Faridabad*); Mani Ram Bagri (L.D.), (*Hissar*); Chiranji Lal Sharma (Cong.-I.), (*Karnal*); Manohar Lal Saini (Janata), (*Kurukshetra*); Rao Birender Singh (Cong.-I.), (*Mahendragarh*); Swami Indervesh (L.D.), *(Rohtak)*; Dalbir Singh (Cong.-I.), *(Sirsa—S.C.)*; Rizak Ram (Cong.-I.), *(Sonepat)*.

HIMACHAL PRADESH—4: Prof. Narain Chand Parashar (Cong.-I.), (*Hamirpur*); Vikram Mahajan (Cong.-I.), (*Kangra*); Vacant *(Mandi)*; Kishan Dutt Sultanpuri (Cong.-I.) *(Simla—S.C.)*.

JAMMU AND KASHMIR—6: Gulam Rasool Kochak (N.C.), (*Anantnag*); Prof. Saif-ud-Din Soz (N.C.), (*Baramulla*); G. L. Dogra (Cong.-I.), (*Jammu-Poonch*); P. Namgyal (Cong.-I.), (*Ladakh*); Abdul Rashid Kabuli (N.C.), (*Srinagar*); Dr. Karan Singh (U.A.), (*Udhampur*).

KARNATAKA—28: Veerendra Patil (Cong.-I.), (*Bagalkot*); C. K. Jaffar Sharief (Cong.-I.), (*Bangalore-North*); T. R. Shamana (J.P.), (*Bangalore-South*); S. B. Sidnal (Cong.-I.), (*Belgaum*); R. Y. Ghorpade (Cong.-I.), (*Bellary*); Narasing Suryawanshi (Cong.-I.), (*Bidar—S.C.*); K. B. Choudhari (Cong.-I.), (*Bijapur*); V. Sreenivasa Prasad (Cong.-I.), (*Chamarajnagar—S.C.*); S. N. Prasan Kumar (Cong.-I.), (*Chikballapur*); B. Shankaranand (Cong.-I.), (*Chikkodi—S.C.*); D. M. Putte Gowda (Cong.-I.), *(Chikmagalur)*; K. Mallanna (Cong.-I.), *(Chitradurga)*; T. V. Chandrasekharappa (Cong.-I.), *(Devangere)*; D. K. Naikar (Cong.-I.), (*Dharwar-North*); F. H. Mohsin (Cong.-I.), (*Dharwar-South*); Vacant (*Gulbarga*); H. N. Nanje Gowda (Cong.-I.), (*Hassan*); M. V. Chandrasekara Murthy (Cong.-I.) (*Kanakpura*); G. Devaraya Naik (Cong.-I.), (*Kanara*); G. Y. Krishnan, (Cong.-I), (Kolar—S.C.); H. G. Ramulu (Cong.-I.), *(Koppal)*; S. M. Krishna (Cong.-I.), (*Mandya*); Janardhana Poojary (Cong.-I.), (*Mangalore*); M. Rajashekara Murthy (Cong.-I.), (*Mysore*); B. V. Desai (Cong.-I), (*Raichur*); S. T. Quadri (Cong.-I), (*Shimoga*); K. Lakkappa (Cong.-I), (*Tumkur*); Oscar Fernandes (Cong.-I), (*Udipi*).

KERALA—20: P. K. Kodiyan (C.P.I.), (*Adoor—S.C.*); Susheela Gopalan (C.P.I.-M.), (*Alleppey*); K. P. Unnikrishnan (Cong.-S.), (*Badagara*); K. Kunhambu (Cong.-I.), (*Cannanore*); A. A. Rahim (Cong.-I.), (*Chirayinkil*); Xavier Arackal (Cong.-I.), (*Ernakulam*); M. M. Lawrence (C.P.I.M.), (*Idukki*); M. Ramanna Rai (C.P.I.M.), (*Kasargod*); Skariah Thomas (U.A.), (*Kottayam*); E. K. Imbichi Bava (C.P.I.M.), (*Calicut*); Ibrahim Sulaiman Sait (M.L.), (*Manjeri*); P. J. Kurien (Cong.-I.), (*Mavelikkara*); E. Balanandan (C.P.I.-M.), (*Mukundapuram*); George Joseph Mundackal (U.A.), (*Muvattupuzha*): A. K. Balan (C.P.I.-M.), (*Ottappalam—S.C.)*; V. S. Vijayaraghavan (Cong.-I.), *(Palghat)*; G. M. Banatwalla (M.L.), (*Ponnani*); B. K. Nair (Cong.-I.), (*Quilon*); K. A. Rajan (C.P.I.), (*Trichur*); A. Neelalohithadasan Nadar (D.S.P.), (Cong.-I.), (*Trivandrum*).

MADHYA PRADESH—40: Nand Kishore Sharma (Cong.-I.), (*Balaghat*); Laxman Karma (Cong.-I.), (*Bastar—S.T.*); Gufran Azam (Cong.-I.), (*Betul*); Kalicharan Sharma (Cong.-I.), (*Bhind*); Dr. S. D. Sharma (Cong.-I.), (*Bhopal*); Godil Prasad Anuragi (Cong.-I.), (*Bilaspur—S.C.*); Kamal Nath (Cong.-I.), (*Chindwara*); Prabhunarain Tandon (Cong.-I.), (*Damoh*); Fatehbhan Singh Chauhan (Cong.-I.). *(Dhar—S.T.)*; Chandulal Chandrakar (Cong.-I.), (*Durg*); Madhavrao Scindia (Cong.-I.), (*Guna*); N. K. Shejwalkar (B.J.P.), (*Gwalior*); Rameshwar Nikhra (Cong.-I.), (*Hoshangabad*); P. C. Sethi (Cong.-I.), (*Indore*); Baburao Paranjape (B.J.P.), (*Jabalpur*); R. G. Tiwari (Cong.-I.), (*Janjgir*); Dilip Singh Bhuria (Cong.-I.), (*Jhabua—S.T.*); Arvind Netam (Cong.-I.), (*Kanker—S.T.*); Smt. Vidyawati Chaturvedi (Cong.-I.), (*Khajuraho—S.C.*); Vacant, (*Khandwa*); Subhash Yadav (Cong.-I.), (*Khargone*); Vidya Charan Shukla (Cong.-I.), (*Mahasamund*); Chhotelal Uike (Cong.-I.), (*Mandla—S.T.*); B. R. Nahta (Cong.-I.), (*Mandsaur*); Babu Lal Solanki (Cong.-I.), (*Morena—S.C.*); Ku. Pushpa Devi Singh (Cong.-I.), *(Raigarh-S.T.)*; Keyur Bhushan (Cong.-I.), (*Raipur*); Vasantkumar Pandit (B.J.P.), (*Rajgarh*); Sivendra Bahadur Singh (Cong.-I.), (*Rajaanandgaon*); Martand Singh (U.A.), (*Rewa*); Ram Prasad Ahirwar (B.J.P.), (*Sagar——S.C.*); Parasram Bhardawaj (Cong.-I.), (*Sarangarh—S.C.*); Chakra Dhari Singh (Cong.-I.), (*Sarguja—S.T.*); Gulsher Ahmed (Cong -I.), (*Satna*); Gargi Shankar Mishra (Cong.-I.), (*Seoni*); Dalbir Singh (Cong.-I.), (*Shahdrol—S.T.*); Phoolchand Verma (B.J.P.), (*Shajapur—S.C.*); Motilal Singh (Cong.-I.), (*Sidhi—S.T.*); Vacant (*Surguja—S.T.*); Satyanarayan Jatiya (B.J.P.), (*Ujjain—S.C.*); Pratap Bhanu Sharma (Cong.-I.), (*Vidisha*).

MAHARASHTRA—48: Chandrabhan Athare Patil (Cong.-I.), (*Ahmednagar*); Madhusudan Vairale (Cong.-I.), (*Akola*); Smt. Usha Prakash Choudhari (Cong.-I.), *(Amravati)*; Qazi Saleem (Cong.-I.), (*Aurangabad*); Shankarrao Patil (Cong.-I.), (*Baramati*); Keshorao Pardhi (Cong.-I.), (*Bhandara*); Smt. Kesarbai Kshirsagar (Cong.-I.), (*Bhir*); Ravindra Verma (J.P.), (*Bombay North*); Smt. Pramila Dandavate (J.P.), (*Bombay-North Central*); Dr. Subramaniam Swamy (J.P.), (*Bombay-North East*); Ram Jethmalani (B.J.P.), (*Bombay-North West*); Ratansinh Rajda (J.P.), (*Bombay-South*); R. R. Bhole (Cong.-I.), (*Bombay-South Central*); Balkrishna Ramchandra Wasnik (Cong.-I.), (*Buldhana—S.C.*); Potdukhe Shantaram (Cong.-I.), (*Chandrapur*); Vilas Muthamwar (Cong.-I.), (*Chimur*); D. B. Shingada (Cong.-I.), (*Dahanu—S.T.*); R. M. Bhoye (Cong.-I.), *(Dhule)*; Vijay N. Patil (Cong.-I.), (*Erandol*); Uttam Rathod (Cong.-I.), (*Hingoli*); Rajaram Shankarrao Mane (Cong.-I.), (*Ichalkaranji*); Y. S. Mahajan (Cong.-I), (*Jalgaon*); Balasaheb Pawar (Cong.-I), (*Jalna*); Jashwantrao Mohite (Cong.-I.), (*Karad*); Ramkrishna More (Cong.-I.), (*Khed*); A. T. Patil (Cong.-I.), (*Kolaba*); Udaysingrao Gaikwad (Cong.-I.), (*Kolhapur*); Balasaheb Vikhe Patil (Cong.-I.), (*Kopargaon*); Shivraj V. Patil (Cong.-I.), (*Latur*); Z. M. Kahandole (Cong.-I.), (*Malegaon—S.T.*); Jambuwant Dhote (Cong.-I.), (*Nagpur*); S. B. Chavan (Cong.-I.), (*Nanded*); Manikrao Hodlya Gavit (Cong.-I.), (*Nandurbar—S.T.*); Dr. Pratap Wagh (Cong.-I.), (*Nasik*); T. M. Sawant (Cong.-I.), (*Osmanabad—S.C.*); Bhausaheb Thorat (Cong.-I.), (*Pandharpur—S.C.*); R. N. Yadav (Cong.-I.), (*Parbhani*); V. N. Gadgil (Cong.-I.), (*Pune*); Prof. Madhu Dandavate (J.P.), (*Rajapur*); Vacant (*Ramtek*); Bapusaheb Parulekar (J.P.), (*Ratnagiri*); Smt. Shalinitai Patil (Cong.-I.), (*Sangli*); Y. B. Chavan (Cong.-I.), (*Satara*); G. S. Kuchan (Cong.-I.), (*Sholapur*); Jagannath S. Patil (B.J.P.), (*Thane*); Vasant Sathe (Cong.-I.), (*Wardha*); Gulam Nabi Azad (Cong.-I.), (*Washim*); Uttamrao Patil (Cong.-I.), (*Yavatmal*).

MANIPUR—2: Mohendra Ngangom (C.P.I.). (*Inner Manipur*); N. Gouzagin (Cong.-I.), (*Outer Manipur—S.T.)*.

MEGHALAYA—2: Bajubon R. Kharlukhi (U.A.), (*Shillong*); P. A. Sangma (Cong.-I.), (*Tura*).

NAGALAND—1: Chingwang Konyak (Cong.-I.).

ORISSA—21: Rama Chandra Rath (Cong.-I.), (*Aska*); Chintamani Jena (Cong.-I.), (*Balasore*); Jagannath Rao (Cong.-I.), (*Berhampur*); Arjun Sethi (Cong.-I.), (*Bhadrak—S.C.*); Chintamani Panigrahi (Cong.-I.), (*Bhubaneshwar*); Nityananda Mishra (Cong.-I.), (*Bolangir*); Smt. Jayanti Patnaik (Cong.-I.), (*Cuttack*); Narayan Sahu (Cong.-I.), (*Deogarh*); K. P. Singh Deo (Cong.-I.), (*Dhenkanal*); Lakshman Malik (Cong.-I.), (*Jagatsinghpur*); A. C. Das (Cong.-I.), (*Jaipur—S.C.*); Rash Behari Behra (Cong.-I.), (*Kalahandi*); Biju Patnaik (Janata), (*Kendrapara*); Harihar Soren (Cong.-I.), (*Keonjhar—S.T.*); Giridhar Gomango (Cong.-I.), (*Koraput—S.T.*); Manmohan Tudu (Cong.-I.), (*Mayurbhanj—S.T.*); Kagapati Pradhani (Cong.-I.), (*Nourangpur—S.T.*); Murtunjaya Nayak (Cong.-I.), (*Phulbani—S.C.);* Brajamohan Mohanty (Cong.-I.) (*Puri*); Dr. Krupasindhu Bhoi (Cong.-I.), (*Sambalpur*); Christopher Ekka (Cong.-I.), (*Sundagarh—S.T.*).

PUNJAB—13: R. L. Bhatia (Cong.-I.), (*Amritsar*); Hakam Singh (Cong.-I.), (*Bhatinda—S.C.)*; Smt. Gurbrinder Kaur Brar (Cong.-I.), (*Faridkot*); Bal Ram Jakhar (*Ferozepur*); Smt. Sukhbans Kaur (Cong.-I.), (*Gurdaspur*); Vacant, (*Hoshiarpur*); Gen. Rajinder Singh Sparrow (Cong.-I.), (*Jullundur*); Devinder Singh Garcha (Cong.-I.), (*Ludhiana*); Amrender Singh (Cong.-I.), (*Patiala*); Sunder Singh (Cong.-I.), (*Phillaur—S.C.*); Buta Singh, (Cong.-I.), (*Ropar—S.C.*); Gurcharan Singh Nihalsinghwala (Cong.-I.), (*Sangrur*); L. S. Tur (U.A.), (*Tarn Taran*).

RAJASTHAN—25: Acharya Bhagwan Dev (Cong.-I.), (*Ajmer*); Ram Singh Yadav (Cong.-I.), (*Alwar*); Bheekhabhai (Cong.-I.), *(Banswara—S. T.);* Virdhi Chand Jain (Cong.-I.), (*Barmer*); Lala Ram Ken (*Bayana—S.C.*); Rajesh Pilot (Cong.-I.), (*Bharatpur*); Girdharilal Vyas (Cong.-I.), (*Bhilwara*); Manphoot Singh Chaudhary (Cong.-I.), (*Bikaner*); Prof. Nirmala Kumari Shaktawat (Cong.-I.), *(Chhittorgarh)*; Daulat Ram Saran (L.D.), (*Churu)*; Nawal Kishore Sharma (Cong.-I.), (*Dausa*); Bir Bal (Cong.-I.), (*Ganganagar—S.C.)*; Satish Agarwal (B.J.P.), (*Jaipur*); Virda Ram Phulwariya (Cong.-I.), (*Jalore—S.C.*); Chaturbhuj (B.J.P.), (*Jhalawar*); Bhim Singh (Janata), (*Jhunjhunu*); Ashok Gehlot (Cong.-I.), (*Jodhpur*); Krishna Kumar Goyal (B.J.P.), (*Kota*); Nathu Ram Mirdha (Cong.-S.), (*Nagaur*); Mool Chand Daga (Cong.-I.), (*Pali*); Jai Narayan Roat (Cong.-I), (*Salumber—S.T.*); Ram Kumar Meena (Cong.-I.), (*Sawai Madhopur*); Kumbha Ram Arya (Janata), (*Sikar*); Banwari Lal (Cong.-I.), (*Tonk—S.C.);* Deen Bandhu Verma (Cong.-I.), (*Udaipur*).

SIKKIM—1: P. M. Subha (Cong.-I.).

TAMIL NADU—39: A. M. Velu (Cong.-I.), (*Arkonam*); Dr. V. Kulandaivelu (D.M.K.), (*Chidambaram—S.C.*); Era Anbarasu (Cong.-I.), (*Chengelput*); Era Mohan (D.M.K.), (*Coimbatore*); R. Muthu Kumaran (Cong.-I.), (*Cuddalore*); K. Arjunan (D.M.K.), (*Dharmapuri*); Maya Thevar (D.M.K.), (*Dindigul*); C. Chinaswamy (A.I.A.D.M.K.), (*Gobichettipalayam*); S. A. Dorai Sebastian (Cong.-I.), (*Karur*); K. Ramamurthy (Cong.-I.), (*Krishnagiri*); Dr. A. Kalanidhi (D.M.K.), (*Madras Central*); G. Lakshmanan (U.A.), (*Madras North*); R. Venkataraman (Cong.-I.), *(Madras South)*; A. G. Subburaman (Cong.-I.), *(Madurai)*; N. Kudanthai Ramalingam (Cong.-I.), (*Mayuram*); Thazhai M. Karunanithi (D.M.K.), (*Nagapattinam—S.C.*); N. Dennis (Cong.-I.), (*Nagercoil*); R. Prabhu (Cong.-I.), (*Nilgiris*); Senapati Gounder (Cong.-I.), (*Palani*); K. B. S. Mani (Cong.-I.), (*Perambalur—S.C.);* S.T.K. Jakkayan (A.I.A.D.M.K.), *(Periakulam);* C.T. Dhandapani (D.M.K.), *(Pollachi—S.C.*); V. N. Swaminathan (Cong.-I.), (*Pudukkottai*); M. S. K. Satyendran (D.M.K.), (*Ramanathapuram*); B. Devarajan (Cong.-I.), (*Rasipuram—S.C.*); C. Palaniappan (D.M.K.), (*Salem*); R. V. Swaminathan (Cong.-I.), (*Sivaganga*); N. Soundarajan (A.I.A.D.M.K.), (*Sivakasi*); T. Nagaratnam (D.M.K.), (*Sriperumbudur—S.C.*); M. Arunachalam (Cong.-I.), (*Tenkasi—S.C.*); S. Singaravadivel (Cong.-I.), (*Thanjavur*); S. S. Ramaswamy Padayachi (Cong.-I.), (*Tindivanam*); K. T. Kosalram (Cong.-I.), (*Tiruchendur*); M. Kandaswamy (D.M.K.), (*Tiruchengode*); N. Selvaraju (D.M.K.), (*Tiruchirappalli);* D. S. A. Shivaprakasam (D.M.K.), (*Tirunelveli);* S. Murugain (D.M.K.), (*Tiruppattur*); Abdul Samad (M.L.), (*Vellore*); D. Puttuswamy (Cong.-I.), (*Vandivasi*).

TRIPURA—2: Baju Ban Riyan (C.P.I.-M.), (*Tripura East—S.T.*); Ajoy Biswas (C.P.I.-M.), (*Tripura West*).

UTTAR PRADESH—85: Nihal Singh Jain (Cong.-I.), (*Agra*); Ram Awadh (L.D.), (*Akbarpur*); Mrs. Indira Kumari (L.D.), (*Aligarh*); K. P. Tiwari (Cong.-I.), (*Allahabad*); Harish Rawat (Cong.-I.), (*Almora*); Rajiv Gandhi (Cong.-I.), (*Amethi*); Chandra Pal Singh (L.D.), (*Amroha*); Jaipal Singh Kashyap (L.D.), (*Aonla*); Chandrajit Yadav (Janavadi), (*Azamgarh*); Mohammad Asrar Ahmad (Cong.-I.), (*Badaun*); Charan Singh (L.D.), (*Baghpat*); Muzaffar Hussain (Cong.-I.), (*Bahraich*); Chandra Bhal Mani Tewari (Cong.-I.), (*Balrampur*); Chandra Shekhar (Janata), (*Ballia*); Ramnath Dubey (Cong.-I.), (*Banda*); Mahabir Prasad (Cong.-I.), (*Bansgaon—S.C.*); Ram Kinkar (L.D.), (*Bara Banki—S.C.*); Begum Abida Ahmed (Cong.-I.), (*Bareilly*); Kalpnath Sonkar (U.A.), (*Basti—S.C.*), Mangai Ram Premi (L.D.), (*Bijnor—S.C.*); R. N. Tripathi (Cong.-I.), (*Bilhaur*); Banarsi Das (Janata), (*Bulandsahr*); R. N. Rakesh (D.S.P.), *(Chail—S.C.);* Nihal Singh (Cong.-J.), (*Chandauli*); Ramayan Rai (Cong.-I.), (*Deoria*); Kazi Jalil Abbasi (Cong.-I.), (*Domariaganj);* M. M. A. Khan (Cong.-I.); (*Etah*); Ram Singh Shakya (L.D.), (*Etawah*); Jairam Verma (Cong.-I.), (*Faizabad*); Dayaram Shakya (B.J.P.), (*Farukhabad*); Hari Kishna Shastri (Cong.-I.), (*Fatehpur*); Rajesh Kumar Singh (L.D.), (*Ferozabad—S.C.);* H. N. Bahuguna (D.S.P.), (*Garhwal*); Ashkaran Sankhwar (Cong.-I.), (*Ghatampur—S.C.)*; Zainul Basher (Cong.-I.), (*Ghazipur*); Jharkande Rai (C.P.I.), (*Ghosi*); Anand Singh (Cong.-I.), (*Gonda*); Harikesh Bahadur (D.S.P.), (*Gorakhpur*); Doonger Singh (Cong.-I.), (*Hamirpur*); Anwar Ahmad (Cong.-I.), (*Hapur*); Mannilal (Cong.-I.), (*Hordoi—S.C.*); Jagpal Singh (L.D.), (*Hardwar—S.C.*); Chandrapal Shailani (Cong.-I.), (*Hathras—S.C.*); Nathuram Shakhyawar (Cong.-I.), (*Jalaun—S.C.*); Multan Singh (Janata), (*Jalesar*); Dr. A. U. Azmi (Cong.-I), (*Jaunpur*); Viswanath Sharma (D.S.P.), (*Jhansi*); Smt. Gayatri Devi (L.D.), (*Kairana*); Ranavir Singh (Cong.-I.), (*Kaiserganj*); Chhotey Singh Yadav (L.D.), (*Kannauj*); Arif Mohammed Khan (Cong.-I.), (*Kanpur*); Krishan Chandra Pandey (Cong.-I.), (*Khalilabad*); Smt. Usha Verma (Cong.-I.), (*Kheri*); Trilok Chand (L.D.), (*Khurja—S.C.*); Chhangur Ram (Janavadi), (*Lalganj—S.C.*); Smt. Sheila Kaul (Cong.-I.), (*Lucknow*); Sheo Sharan Verma (L.D.), (*Machhlishahr*); Ashfaq Husain (D.S.P.), (*Maharajganj);* Raghunath Singh Verma (L.D.), (*Mainpuri*); Digambar Singh (L.D.), (*Mathura*); Smt. Mohsina Kidwai (Cong.-I.), (*Meerut*); Umakant Mishra (Cong.-I.), (*Mirzapur*); Ram Lal Rahi (D.S.P.), (*Misrikh—S.C.*); Smt. Kailashpati (Cong.-I), (*Mohanlalganj—S.C.);* Ghulam Mohd. Khan (L.D.), (*Moradabad*); Gayoor Ali Khan (L.D.), (*Muzaffarnagar*); N. D. Tiwari (Cong.-I.), (*Naini Tal*); Chandra Pratap Narain Singh (Cong.-I.), (*Padrauna);* B. D. Singh (L.D.), (*Phulpur*); Harish Kumar Gangwar (D.S.P.), (*Pilibhit);* ; Ajit Pratap Singh (Cong.-I), (*Pratapgarh*); Arun Kumar Nehru (Cong.-I.), (*Rai Bareli*); Zulfiquar Ali Khan (Cong.-I.), (*Rampur*); Ram Pyare Panika (Cong.-I.), (*Robertsganj—S.C.*); Rashid Masood (L.D.), (*Saharanpur*); Rajnath Sonkar Shastri (L.D.), (*Saidpur—S.C.)*; Ram Nagina Misra (Cong.-I.), (*Salimpur*); Brijendra Pal Singh (Cong.-I.), (*Sambhal*); D. G. Singh (Cong.-I.), (*Shahabad*); Jitendra Prasada (Cong.-I.), (*Shahjahanpur*); Dr. Rajindra Kumar Bajpai (Cong.-I.), (*Sitapur*); Giri Raj Singh (Cong.-I.), *(Sultanpur)*; T. S. Negi (D.S.P.), *(Tehri-Garhwal)*; Ziaur Rahman Ansari (Cong.-I.), (*Unnao*); Kamalapati Tripathi (Cong.-I.), (*Varanasi*).

WEST BENGAL—42: Pius Tikey (R.S.P.), (*Alipurduar—S.T.*); Bijoy Modak (C.P.I.-M.), (*Arambagh*); Ananda Gopal Mukhopadhyay (Cong.-I.), (*Asansol*); Palas Barman (R.S.P.), (*Balurghat—S.C.)*; Basudeb Acharya (C.P.I.-M.), (*Bankura*); Chitta Basu (F.B.), (*Barasat*); M. Ismail (C.P.I.-M.), (*Barrackpore*); Indrajit Gupta (C.P.I.), (*Basirhat*); Tridib Chaudhuri (R.S.P.), (*Berhampore*); Gadadhar Saha (C.P.I.-M.), *(Birbhum—S.C.)*; Dr. Saradish Roy (C.P.I.-M.), (*Bolpur*); Sushil Bhattacharya (C.P.I.-M.), (*Burdwan*); Sunil Maitra (C.P.I.-M.), (*Calcutta-N.E.);* Ashok Sen (Cong.-I.), (*Calcutta-N.W.*); Satyasadan Chakraborty

(C.P.I.-M.), (*Calcutta-South*); Sudhir Kumar Giri (C.P.I.-M.), (*Contai*); Amar Roypradhan (F.B.), (*Cooch Behar—S.C.*); Ananda Pathak (C.P.I.-M.), (*Darjeeling*); Amal Datta (C.P.I.-M.), (*Diamond Harbour*); Niren Ghosh (C.P.I.-M.), (*Dum Dum*); Krishna Chandra Halder (C.P.I.-M.), (*Durgapur—S.C.*); Prof. Roop Chand Pal (C.P.I.-M.) (*Hooghly*); Samar Mukherjee (C.P.I.-M.), (*Howrah*); Somnath Chatterjee (C.P.I.-M.), (*Jadavpur*); Subodh Sen (C.P.I.-M.), (*Jalpaiguri*); Zainal Abedin (C.P.I.-M.), (*Jangipur*); Matilal Hasda (C.P.I.-M.), (*Jhargram—S.T.*); Sanat Kumar Mandal (R.S.P.), (*Joynagar—S.C.*); Saifuddin Chowdhury (C.P.I.-M.), (*Katwa*); R. P. Das (C.P.I.-M.), (*Krishnagar*); A. B. A. Ghani Khan Chaudhury (Cong.-I.), (*Malda*); Nirmal Sinha (C.P.I.-M.), (*Mathurapur—S.C.*); Narayan Choubey (C.P.I.), (*Midnapore*); Masudal Hossain Syed (C.P.I.-M.), (*Murshidabad*); Smt. Bibha Ghosh Goswami (C.P.I.-M.), (*Nabadwip—S.C.*); Smt. Geeta Mukherjee (C.P.I.), (*Panskura*); Chitta Mahata (F.B.), (*Purulia*); Dr. Golam Yazdani (Cong.-I.), (*Raiganj*); Ajit Bag (C.P.I.-M.), (*Serampore*); Satya Gopal Misra (C.P.I.-M.), (*Tamluk*); Hannan Mollah (C.P.I.-M.), (*Uluberia*); Ajit Kumar Saha (C.P.I.-M.), (*Vishnupur—S.C.*).

ANDAMAN AND NICOBAR ISLANDS—1: Manoranjan Bhakta (Cong.-I.).

ARUNACHAL PRADESH—2: Sobeng Tayeng (Cong.-I.), (*Arunachal-E.*); P. K. Thungon (Cong.-I.), (*Arunachal-W.*).

CHANDIGARH—1: Jagan Nath Kaushal (Cong.-I.).

DADRA AND NAGAR HAVELI—1: R. P.. Mahala (Cong.-I.).

DELHI—7: Bhiku Ram Jain (Cong.-I.), (*Chandni Chowk*); Jagdish Tytler (Cong.-I.); (*Delhi Sadar*); H. K. L. Bhagat (Cong.-I.), (*East Delhi*); Dharam Dass Shastri (Cong.-I.), (*Karol Bagh—S.C.*); Atal Bihari Vajpayee (B.J.P.), (*New Delhi*); Sajjan Kumar (Cong.-I.), (*Outer Delhi*); Charanjit Singh (Cong.-I.), (*South Delhi*).

GOA, DAMAN & DIU—2: M. Eduardo Faleiro (Cong.-I.); (*Marmugao*); Mrs. Sanyogita Rane (Cong.-I.), (*Panaji*).

LAKSHADWEEP—1: P. M. Sayeed (Cong.-I.).

MIZORAM—1: Dr. R. Rothuama (U.A.).

PONDICHERRY—1: P. Shanmugham (Cong.-I.).

NOMINATED ANGLO-INDIANS—2: Frank Anthony (U.A.); A. E. T. Barrow (U.A.).

ESTIMATES COMMITTEE:
Chairman: Bansi Lal.

PUBLIC ACCOUNTS COMMITTEE:
Chairman: Sunil Maitra.

PUBLIC UNDERTAKINGS COMMITTEE:
Chairman: Madhusudan Vairale.

LEGISLATIVE ASSEMBLIES AND COUNCILS

THE following is the party position and the total number of seats in the various State assemblies and councils. The names of the Speakers, the Deputy Speakers and Chairmen and Deputy Chairmen have also been listed.

(Data is compiled on the basis of official information covering a specific period.)

ANDHRA PRADESH LEGISLATIVE ASSEMBLY

Speaker: Thangi Satyanarayana; *Dy. Speaker:* A. Bheema Reddy.

Seats: 295; *Party position:* Telugu Desam: 200; Congress-I: 59; Progressive Democratic Front: 8; Communist Party of India (M): 5; Communist Party of India: 5; Bharatiya Janata Party: 4; Janata Party: 1; Majlis-Ittehad-ul-Muslimeen: 5: Rashtriya Sanjay Munch:3; Independents (including one nominated): 3; Vacant: 2.

(Position as on October 31, 1983).

ARUNACHAL PRADESH LEGISLATIVE ASSEMBLY

Speaker: T. L. Rajkumar; *Dy. Speaker:* Pasang Wangchuk Sona.

Seats: 33; *Party position:* Congress-I: 27; People's Party of Arunachal: 3; Independents: 3.

(Position as on October 4, 1983).

ASSAM LEGISLATIVE ASSEMBLY

Speaker: Sheikh Chand Mohammad; *Dy. Speaker:* Nabin Chandra Kath Hazarika.

Seats: 126; *Party position:* Congress-I: 98; Congress (S): 1; Plains Tribal Council of Assam: 3; Communist Party of India: 1; Communist Party of India (M): 2; Independents: 4; Vacant: 17.

(Position as on September 15, 1983).

BIHAR LEGISLATIVE ASSEMBLY

Speaker: Radha Nandan Jha; *Dy. Speaker:* Gajendra Prasad Himanshu.

Seats: 325; *Party position:* Congress-I: 194; Janata Party: 37; Bharatiya Janata Party: 23; Communist Party of India: 21; Lok Dal: 15; Congress (S): 5; Communist Party of India (M): 6; All India Forward Bloc: 1; Jharkhand Mukti Morcha: 14; S.U.C.I.: 1; Independents: 5; Nominated: 1; Vacant: 2.

(Position as on February 2, 1984).

BIHAR LEGISLATIVE COUNCIL

Chairman: Prithvi Chand Kisku; *Dy. Chairman:* Vacant.

Seats: 96; *Party position:* Congress-I: 32; Congress (S): 1; Congress (J): 1; Janata Party: 10; Bihar Janata Party: 1; Lok Dal: 1; Communist Party of India: 5; Bharatiya Janata Party: 2; Independents: 3; Jharkhand Mukti Morcha: 1; Vacant: 39.

(Position as on September 14, 1983).

GOA LEGISLATIVE ASSEMBLY

Speaker: Dayanand Ganesh Narvekar; *Dy. Speaker:* V. G. Desai.

Seats: 30; *Party position:* Congress-I: 16; Goa Congress: 8; Maharashtravadi Gomantak Party: 2; Independents: 4.

(Position as on September 23, 1983).

GUJARAT LEGISLATIVE ASSEMBLY

Speaker: Natwarlal Shah; *Dy. Speaker:* Ramnik Dhami.

Seats: 182; *Party position:* Congress-I: 141; Janata Party: 16; Bharatiya Janata Party: 12; Rashtriya Congress: 7; Independents: 6.

(Position as on November 3, 1983).

HARYANA VIDHAN SABHA

Speaker: Tara Singh; *Dy. Speaker:* Ved Pal.

Seats: 90; *Party position:* Congress-I: 57; Haryana Lok Dal Party: 15; Janata Party: 9; Bharatiya Janata Party: 6; Congress (J): 1; Vacant: 1.

(Position as on September 30, 1983).

HIMACHAL PRADESH VIDHAN SABHA

Speaker: Thakur Sen Negi; *Dy. Speaker:* Vijay Kumar Joshi.

Seats: 68; *Party position:* Congress-I: 34; Bharatiya Janata Party: 28; Janata Party: 2; Independents: 2; Vacancies: 2.

(Position as on September 21, 1983).

JAMMU AND KASHMIR LEGISLATIVE ASSEMBLY

Speaker: Mangal Ram Sharan . *Dy. Speaker:* Dilawar Mir.

Seats: 76; *Party position:* National Conference: 46; Congress-I: 26; Peoples Conference: 1; Panthers Party: 1; Independent: 1.

(Position as on September 30, 1983).

JAMMU AND KASHMIR LEGISLATIVE COUNCIL

Chairman: Vacant; *Dy. Chairman:* Attah Ullah Soharwardy.

Seats: 36; *Party position:* National Conference: 33; Congress-I: 2; Independent: 1.

(Position as on September 30, 1983).

KARNATAKA LEGISLATIVE ASSEMBLY

Speaker: D. B. Chandregowda; *Dy. Speaker:* Veeranna.

Seats: 225; *Party position:* Janata: 96; Congress-I: 80; Bharatiya Janata Party: 18; Communist Party of India: 3; Communist Party of India (M): 3; M.E.S.: 5; All India Anna Dravida Munnetra Kazhagham: 1; Independents: 11; Nominated: 1.

(Position as on September 27, 1983).

KARNATAKA LEGISLATIVE COUNCIL

Chairman: Rahman Khan; *Dy. Chairman:* Dr. A. B. Malaka Reddy.

Seats: 63: *Party position:* Congress-I: 24; Bharatiya Janata Party: 4; Janata Party: 7; Independents: 6; Vacancies: 21.

(Position as on September 27, 1983).

KERALA LEGISLATIVE ASSEMBLY

Speaker: V. Purushothaman; *Dy. Speaker:* K. M. Hamsa Kunju.

Seats: 140; *Party position:* Indian National Congress-I: 34; Communist Party of India (M): 30; Indian Union Muslim League: 14; Communist Party of India: 13; Kerala Congress (J): 8; Congress (S): 6; Janata Party (G): 4; Janata Party: 4; National Democratic Party: 4; All India Muslim League: 4; Revolutionary Socialist Party: 4; Socialist Republican Party: 2; Independents: 7.

MADHYA PRADESH LEGISLATIVE ASSEMBLY

Speaker: Ramkishor Shukla.

Seats: 321; *Party position:* Congress-I: 245; Bharatiya Janata Party: 62; Pragatisheel Vidhayak Dal: 7; Republican Party of India (Khobragade): 1; Communist Party of India: 2; Nominated: 1; Vacant: 2.

(Position as on February 2, 1984).

MAHARASHTRA LEGISLATIVE ASSEMBLY

Speaker: Sharad Shankar Dighe; *Dy. Speaker:* Shankarrao C. Jagtap.

Seats: 289; *Party position:* Congress-I: 234; Congress (S): 9; Janata Party: 14; Bharatiya Janata Party: 14; Peasants Workers Party: 8; Communist Party of India: 2; Communist Party of India (M): 2; Republican Party of India (Khobragade): 1; Independents: 3; Nominated: 1; Vacant: 1.

(Position as on September 23, 1983).

MAHARASHTRA LEGISLATIVE COUNCIL

Chairman: J. S. Tilak; *Vice-Chairman:* A. G. Pawar.

Seats: 78; *Party position:* Congress-I: 40; Congress (S): 3; Janata Party: 4; Shetkari Kamgar Paksha: 3; Bharatiya Janata Party: 7; Shiv Sena: 3; Republican Party of India: 2; Independents: 9; Vacant: 7.

(Position as on September 23, 1983).

MANIPUR LEGISLATIVE ASSEMBLY

Speaker: Y. Yaima Singh; *Dy. Speaker:* W. Angou Singh.

Seats: 60; *Party position:* Congress-I: 43; Communist Party of India: 5; Communist Party of India (M): 1; Manipur People's Party: 8; Janata Party: 1; Independent: 1; Vacant: 1.

(Position as on February 1, 1984).

MEGHALAYA LEGISLATIVE ASSEMBLY

Speaker: E. K. Mawlong; *Dy. Speaker:* N.A.

Seats: 60; *Party position:* Meghalaya Democratic Front: 37; (Partners of Meghalaya Democratic Front: Congress: 31; Breakaway All Party Hill Leaders' Conference: 3; Breakaway Hill State Peoples' Democratic Party: 1; Public Demand Implementation Commission: 1; Independent: 1; All Party Hill Leaders' Conference: 10; Hill State Peoples' Democratic Party: 13.

(Position as on May 22, 1984).

MIZORAM LEGISLATIVE ASSEMBLY

Speaker: Dr. Kenneth Chawngliana; *Dy. Speaker:* C. Chawngkunga.

Seats: 33; *Party position:* Peoples Conference: 24; Congress-I: 8; Mizo Union: 1.

(Position as on September 22, 1983).

NAGALAND LEGISLATIVE ASSEMBLY

Speaker: C. Chongshen; *Dy. Speaker:* E. T. Ezung.

Seats: 60; *Party position:* Congress-I: 36; Naga National Democratic Party: 23; Nagaland People's Party: 1.

(Position as on May 23, 1983).

ORISSA LEGISLATIVE ASSEMBLY

Speaker: S. N. Rath; *Dy. Speaker:* Himansu Sekhar Padhi.

Seats: 146; *Party position:* Congress-I: 122; Janata Party: 14; Communist Party of India: 4; Independents: 6.

(Position as on October 26, 1983).

RAJASTHAN LEGISLATIVE ASSEMBLY

Speaker: P. C. Vishnoi; *Dy. Speaker:* N.A.

Seats: 200; *Party position:* Congress-I: 148; Bharatiya Janata Party: 32; Janata Party: 9; Lok Dal: 4; Congress (S): 3; Communist Party of India: 1; Communist Party of India (M): 1; Independent: 1; Vacant: 1.

(Position as on November 1, 1983).

TAMIL NADU LEGISLATIVE ASSEMBLY

Speaker: Hon. Thiru K. Rajaram; *Dy. Speaker:* Hon. Thiru P. H. Pandian.

Seats: 234; *Party position:* All India Anna Dravida Munnetra Kazhagam: 133; Congress-I: 32; Dravida Munnetra Kazhagam: 31; Communist Party of India: 10; Communist Party of India (M): 11; Gandhi-Kamaraj National Congress: 3; All India Forward Bloc: 3; Tamil Nadu Congress (K): 3; Janata Party: 2; Independents: 3; Nominated member: 1; Vacant: 2.

(Position as on September 1, 1983).

TAMIL NADU LEGISLATIVE COUNCIL

Chairman: M. P. Sivagnanam; *Dy. Chairman:* Pulavar Pulamaipithan.

Seats: 63; *Party position:* All India Dravida Munnetra Kazhagam: 17; Congress-I: 4; Dravida Munnetra Kazhagam: 3; Teachers' Graduates' Progressive Front: 3; Indian Union Muslim League: 1; United Party: 1; Communist Party of India: 1; Communist Party of India (M): 1; Gandhi-Kamaraj National Congress: 1; Independents: 9; Vacant: 21.

(Position as on September 14, 1983).

UTTAR PRADESH VIDHAN SABHA

Speaker: Dharam Singh; *Dy. Speaker:* Vacant.

Seats: 426; *Party position:* Congress-I: 323; Janata Party: 10; Communist Party of India: 6; Democratic Socialist Party: 6; Congress (S): 2; Congress (J): 3; Soshit Samaj Dal: 1; Communist Party of India (M): 1; Rashtriya Lok Tantric Morcha: 61; Independents: 7; Vacant: 5.

(Position as on September 1983).

UTTAR PRADESH VIDHAN PARISHAD

Chairman: Virendra Bahadur Singh Chandel; *Dy. Chairman:* Shiv Prasad Gupta.

Seats: 108; *Party position:* Congress-I: 32; Akhil Bharatiya Lok Dal: 10; Bharatiya Janata Party: 4; Janata Party: 3; Teachers' Party: 4; Vidhayak Paksh: 4; Communist Party of India: 2; Loktantriya Samajvadi Dal: 4; Independent: 1; Vacant: 51.

(Position as on February 2, 1984).

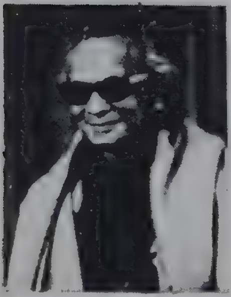
WEST BENGAL LEGISLATIVE ASSEMBLY

Speaker: Hashim Abdul Kalim; *Dy. Speaker:* Kalimuddin Shams.

Seats: 295; *Party position:* Communist Party of India (M): 173; Forward Bloc: 28; R.S.P.: 19; R.C.P. (I): 2; Forward Bloc (M): 2; W.B. Socialist Party: 3; Democratic Socialist Party: 3; Congress (I): 53; S.U.C. (I): 2; Communist Party of India: 7; Independent: 1; Nominated: 1; Vacant: 1.

(Position as on September 21, 1983).

WHO'S WHO IN INDIA



ALI, Naushad Wahid is among the leading and most popular film music directors. *b.* Dec. 25, 1919 at Lucknow. Starting in the films since 1937 as a pianist he rose to be a music director; he has so far contributed music in 57 films. Won many State awards and Dar-e-Salaam award including Filmfare award for *'Baiju Bawra'* in 1953. Received a gold medal and disc for music in *'Ratan'*. He composed several gazals and is the recipient of the Dada Saheb Phalke Award in 1982 for his contribution to Indian film music and Sangeet Peeth award of 'Rasheshwar' for 1983. His notable hits are the music in films *Dillagi*, *Dulari*, *Amar*, *Mother India*, *Andaz*, *Mughal-e-Azam*, *Gunga Jamuna*, *Uran Khatola*, etc. *Address:* Ashiana, Carter Rd., Bandra, Bombay 400 050.

AL-ESSA, H.E. Mr Essa Abdul Rehman, Ambassador of Kuwait to India, since 1968. *b.* 1930. Min. of Finance & Kuwait Currency Board, 1953-62; Mem.: Kuwait Embassy, Washington, 1962-65; Kuwait delegation to U.N. & also Consul-Genl. in Washington, 1963; Charge d' Affaires, Algiers, 1965-66; Tunisia, 1966-68; concurrent Amb. to Sri Lanka, 1971; and to Nepal 1982. *Address:* Embassy of the State of Kuwait, 5-A, Shantipath, Chanakyapuri, New Delhi 110021.

ALEXANDER, Padinjarethalakkal Cherian, M.A., M. Litt., D. Litt., I.A.S. Principal Secy. to Prime Minister. *b.* March 20, 1921. Served In U.N. in various capacities as Asst. Secy.-Gen. of U.N. and Exec. Head, Intnl. Trade Centre, 1963-66, 1970-73 and 1978-81. *Address:* South Block, New Delhi 110001.

AMIN, Nanubhai Bhailalbhai, S.B. (Elec. Engg.). MIT-USA, M.S. (Elec. Engg.), Cornell-USA. Industrialist; Chmn. & Mg. Dir.: Jyoti Limited, Vadodara. *b.* Oct. 2, 1919. Ex-Mem.: Socy. of Council for Scientific and Industrial Research, Govt. of India; Adv. Cttee. on Renewable sources of energy of World Bank; Mem.: Adv. Cttee. on New and Renewable Energy Sources, Govt. of India; Govng. Council of Central and Power Commission, Govt. of India; Govng. Council, I. I. M., Ahmedabad; Leader, Indian Industrialists' Goodwill Delegation to W. Asian countries; Chmn.: Central Gujarat Cttee. of W. W. F. India; Pres.: Indian Council of Agri. Devpt. (Gujarat); Citizens' Blood Donation Socy., Vadodara; Socy. for Clean Environment, Vadodara; leading philanthropist interested in propagation of educ. & Community Welfare. *Address:* Jyoti Ltd., P.O. Chemical Industries, Vadodara 390003.

AMIN, Ramanbhai Bhailalbhai, Industrialist. *b.* May 19, 1913. Chmn.: Alembic Chem. Works Co. Ltd., Alembic Glass Industries Ltd., Shreno Ltd., Neomer Ltd., Aavaran Ltd., Dharak Ltd., Dir.: Paushak Ltd., Central Pulp Mills Ltd., Lakhanpal National Ltd., Ex-Pres., F.I.C.C. & I.; Central Gujarat Chamber of Commerce; Fedn. of Gujarat Mills and Industries. *Address:* Alembic Chemical Works Co. Ltd., Alembic Rd., Vadodara 390003.

AMTE, Murlidhar Devidas, internationally admired social worker in the field of treatment and rehabilitation of persons afflicted by leprosy, popularly known as Baba Amte. *b.* Dec. 1914. LL.B., poet, philosopher and artist. Started the Maharogi Seva Samiti—organisation for the service of leprosy patients—in 1951. Created Anandwan on a 250 acres of land, the first leprosy colony in India for the treatment, training and rehabilitation of leprosy patients and for conducting research in the field. Another centre Ashokwan was started in 1956. In 1968, Sunshine School for blind children was added along with a primary school for children affected by leprosy. The Santhi Niketan, a centre for physically handicapped, was set up in 1972. Somnath Prakalpa, a model farm, was established in 1965. In 1973, in Chandrapur, covering the Adivasi belt of Andhra Pradesh, Maharashtra and Madhya Pradesh, a new welfare organisation came into being called the Lok Biradari Prakalpa. His guiding hand promoted comprehensive health, agriculture and education of the tribals. There was also a 20-bed hospital for free treatment of tribals and a school of non-formal education at Hemalkasa. Centres in some remote areas like Nagepalli and Abhuj-mud are rapidly nearing completion. Also constructed is a college at Anandwan, affiliated to Nagpur University and has 1400 students on its rolls. Awarded FIE Foundation's Rashtra Bhushan Award in 1978, the Jamnalal Bajaj Award for constructive work in 1979, and the Indian Merchants' Chamber Award for outstanding work in the field of rehabilitation of lepers for 1980 and the Damien-Dutton Award for 1983. *Address:* Baba Amte. Anandwan, Warora, Chandrapur, Maharashtra 442907.

ANAND, Dev, B.A. (Hons.), Motion Picture Actor-Producer-Director. *b.* Sept. 26, 1923. Leading role in Prabhat's *Hum Ek Hain* (1946); Important Films: *Ziddi* (1948); *Baazi* (1951); *Taxi Driver* (1954); *Munimji* (Film Critics Best Actor Award, 1955); *Kala Pani* ("Filmfare" Best Actor Award, 1958); *Hum Dono* (1961); *Guide* (Multi-award winner, 1965); *Johny Mera Naam* (1970); *Tere Mere Sapne* (1971); *Amir Garib* (1974); *Warrant* (1976): completed more than 90 films, produced about 20 films under the banner of Navketan; directed *Prem Pujari*, *Hare Rama Hare Krishna*, *Heera Panna* and *Ishk Ishk Ishk*, *Des Pardes*, *Loot Maar*. *Address:* 2, Iris Park, Juhu, Bombay 400054.

ANAND, Mulk Raj, B.A. (Hons.), Ph.D., Padma Bhushan (1967). Author, Novelist and Critic. *b.* Dec. 12, 1905. Sometime Tagore Prof. of Literature, Punjab. Univ., Chandigarh, 1973-74; author of various novels; Fellow, Lalit Kala Akademi. *Address:* 25, Cuffe Parade, Colaba, Bombay 400005.

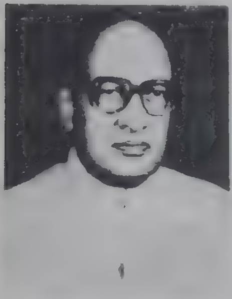
ANNAMALAI, Sathappa Annamalai Palaniappa, M.A., B.L., Editor, *Kumudam* (Tamil Weekly). *b.* Dec. 12, 1924. *Address:* 151, Purasawalkam High Road, P.B. No. 1008, Madras 600010.

ANSARI, KHALID, B.A. (Eng. Litt.), M.A. (Pol. Sci.), LL.B. (Bombay Univ.), M.A. (Journalism, Advtg. & Mass Communication), Stanford Univ., Calif.; Mg. Dir., Mid-day Publications Pvt. Ltd., and Inquilab Publications Pvt. Ltd. *b.* Sept. 3, 1937. Mg. Editor, *ASIAD Chronicle*, *Mid-Day*, *Sunday Mid-Day*, *Sportsweek*, *Sportsweek's World of Cricket* and *Sportsweek Annual*. Exec. Mem., All India Council of Sports, N. Delhi; Vice-Chmn., Maharashtra Press Con. Cttee.; Trustee, Indo-Arab Students Welfare League; Pres., Sports Writers' Assn. of India; Urdu Newspapers' Assn., All India Sports Journalists' Assn.; Vice-Pres., Bombay Gymkhana Ltd.; Hon. Secy., Intnl. Hockey Comm., Mem., Govt. of India's Urdu Press Cttee. Exec. Cttee., American Alumni Assn. Awarded Outstanding Citizen Award of N. Bombay Jaycees (1979), Gentleman of the year of Gentleman Magazine (1980) and Outstanding Journalist Award of Lions Club (1983). *Address:* Mid-day Publications Pvt. Ltd., 156-D, J. Dadajee Road, Bombay 400034.

APTE, Madhav Laxman, B.A., Industrialist. *b.* Oct. 5, 1932. Chmn. & Mg. Dir., Apte Amalgamations Ltd.; Chmn., Laxmi Vishnu Textile Mills Ltd.; Dir.: Thomas Cook (India) Ltd., May & Baker (India) Ltd., Hico Products Ltd., Hindustan Sugar Mills Ltd., Indian Dyestuffs Inds. Ltd., Voltas Ltd., Syarikat Gula N.S. (Sdn.), Berhad, Malaysia, etc.; Ex-Pres.: Bombay Chamber of Commerce and Industry, Deccan Sugar Factories' Assn., Indian Sugar Mills Assn., Maharashtra Chamber of Commerce, Maharashtra Economic Devpt. Council, etc.; Ex Vice-Pres., Bombay Chamber of Commerce and Industry (1977-78); played against M.C.C., 1951; First Test against Pakistan, 1952; West, 1953; played Ranji Trophy Tournaments for a number of years. *Address:* 199, Churchgate Reclamation, Bombay 400020.

ARUNACHALAM, A. M. M., Industrialist. *b.* March 1, 1918. Chmn.: Carborundum Universal Ltd., Bundy Tubing of India Ltd., Tube Investments of India Ltd.; Dy. Chmn.; Ashok Leyland Ltd., C.W.S. (India) Ltd.; Dir.: Univ. Cables Ltd., Union Carbide India Ltd., Oriental Carbons Ltd., Alkali & Chemical Corpn. of India Ltd., Bhadrachalam Paperboards Ltd., Facit Asia Ltd., Cholamandalam Investment & Finance Co. Ltd., Deccan Fibre Glass Ltd., Asian Investments Ltd., Murugappa Morganite Ceramic Fibres Ltd.; Ex-Chmn.: Madras Chamber of Comm. & Ind., 1969, Madras Productivity Council, 1963-64, Tamil Nadu Indl. Investment Corpn. Ltd., 1971-73, Cycle Manufacturers' Assn., 1967; Bd. of Governors, I.I.T., Madras; Mem., Govng. Body, A.M.M. Educl. Trust, A.M.M. Medical Trust, Instt. of Financial Mgmt. & Res., Madras, Bd. of Trustees of Music Academy, Madras; Hon. Consul-General for Japan in Madras, 1962-65; Leader: Indian delegation to the 23rd Cong. of the Fedn. of Commonwealth Chambers of Commerce, London, 1968. Awarded distinction of the Order of the Rising Sun by His Imperial Majesty, Emperor of Japan. *Address:* The Laurels, 4, Chittaranjan Rd., Madras 600018.

ARUNACHALAM, M.V., B.Sc. (Hons.) (Madras), Industrialist. *b.* July 1927. Chmn.: E.I.D. Parry India Ltd.; Mg. Dir.: Tube Investments of India Ltd.; Dir.: Carborundum Universal Ltd., Straw Products Ltd., Shriram Fibres Ltd., Industrial Credit & Investment Corpn. of India Ltd., Hindustan Motors Ltd., Reserve Bank of India (Central Board & Local Board); Pres.: Madras Instt. of Management, Southern India Chamber of Commerce, 1964, F.I.C.C.& I., 1976-77; Chmn.: Madras Fertilizers Ltd., 1977-78. *Address:* 1, Bishops Garden, off Greenways Road, Madras 600028.



BAJAJ, Ramakrishna, Chmn. & Mg. Dir., Hindustan Sugar Mills Ltd. *b.* Sept. 22, 1923. Chmn.: Bajaj International Pvt. Ltd., Hercules Hoists Ltd., etc.; Vice-Chmn.: Mukand Iron & Steel Works Ltd.; Dir., Andhra Valley & Power Supply Co. Ltd., etc.; Pres., F.I.C.C.I., Mem.: Exec. Cttee., Council for Fair Business Practices; Pres., Maharashtra Chamber of Commerce, 1964-68 & Fair Trade Practices Assn. (1969-71); Chmn.: Development Corpn. of Vidarbha Ltd. (1972-76); Indian National Cttee. of Intnl. Chamber of Comm. (1978-79); Indian Merchants Chamber (1979-80). Awarded "Samaj Ratna" tittle, 1984. *Address:* Bajaj Bhawan, 226, Nariman Point, Bombay 400021.

BALAKRISHNAN NAIR, Prof. N., B.Sc. (Hons.), M.A., Ph.D., D.Sc., F.N.A.Sc., F.Z.S., F.Z.S.I., F.A.Sc., F.N.A.; Caithness Gold Medal, Univ. of Madras, 1949; Royal Socy. & Nuffield Foundn. Bursary, 1967; S. S. Bhatnagar Award, 1971; All India Congress of Zoology Gold Medal, 1980; Fellow, Indian National Science Academy, 1974; Indian Academy of Science, 1975; Visiting Professor, Institute Oceanografico, Venezuela, 1973-75; Fellow, Zoological Socy. of Lond. and India; UNESCO Fellowship for advanced studies in Norway, 1957; Dean, Faculty of Sci., Univ. of Kerala; Mem. Secy.: State Cttee. of Sci. & Tech.; National Fellow, U.G.C.; National Lecturer, U.G.C. (1981); Jawaharlal Nehru Fellow (1982-84); Prof. of Marine Biology & Fisheries and Head, Deptt. of Aquatic Biology & Fisheries & Aquarium, Trivandrum. *b.* July 6, 1927. Distinguished in marine biology & oceanography with emphasis on malacology, littoral ecology & invertebrate physiology; Pres., Kerala Academy of Biology; Mem.: Senate, Academic Council & Faculty of Sci., Kerala Univ., Faculty of Sci., Cochin, Calicut & Annamalai Univs.; Editor, "Aquatic Biology", Marine Biological Assn. of India, etc. *Address:* Deptt. of Aquatic Biology & Fisheries, Aquarium, Trivandrum 695007.

BANERJI, Asoka Nath, Governor of Karnataka, since April 16, 1983. *b.* Dec. 19, 1917. Joined I.A.S. and worked in various capacities, 1947-61; Iron & Steel Controller for India, 1961-63; Gen. Manager, Rourkela Steel Plant, 1964-67; Dy. Chmn., Hindustan Steel Ltd., 1967-69; Dir.- Genl., Bureau of Public Enterprises, 1969; Spl. Secy., Min. of Industrial Devpt., Govt. of India, Jan. 1973; Secy., Min. of Works & Housing, May 1974-76; legal practice in Supreme Court of India & Delhi High Court, 1977; Governor, Himachal Pradesh, Aug. 1981 to April 1983; Mem., Court of Governors, Admve. Staff Coll., Hyderabad; Bd. of Governors, I.I.B.M., Bangalore; has contributed in Indian journals & periodicals on steel, mgmt., environment, etc. *Address:* Raj Bhavan, Bangalore 560001.

BARNES, JR., H.E. Mr. Harry G., B.A., M.A., United States Amb. to India, since Nov. 1981. b. June 5, 1926. U.S. Army, 1944-46; U.S. Foreign Service, 1950; Vice-Consul, Bombay, 1951-53; Vice-Consul & Second Secy., Prague, 1953-55; Consul & Second Secy., Moscow, 1957-59; Deptt. of State, 1959-62; National War Coll., 1962-63; Dy. Chief of Mission, Kathmandu, 1963-67; Dy. Chief of Mission, Bucharest, 1968-71; Deptt. of State, 1971-74; Amb. To Romania, 1974-77; Dir.-Genl. of Foreign Services, 1977-81. *Addres:* American Embassy, Chanakyapuri, New Delhi 110021.

BARNES, Dr. Leo, B.A., LL.M., Ph.D. (Bombay), General Secretary, National Union of Seafarers of India. *b.* Nov. 6, 1932. Was a seaman; joined seamen's movement, 1960; Mem., Merchant Navy Trg. Board since 1965; Board of Trustees of Seamen's Prov. Fund since 1967; Seamen's Employment Board (Foreign-going) since 1967; National Welfare Board for Seafarers since 1967; National Shipping Board since 1974; Expert Cttee. on Unemployment among Indian Seamen (G.O.I.), 1969 and 1981; Wkg. Cttee., Hind Mazdoor Sabha; Mem., Exec. Bd. Intnl. Transport Workers' Fedn. (I.T.F.), London, 1983; Indian Delegation to Shipping Session of the Intergovernmental Preparatory Group of U.N.C.T.A.D. (1982); Trade Union Course at Harvard Univ., U.S.A. (1973). *Address:* A 59-1212, Azad Nagar, V. Desai Rd., Andheri (West), Bombay 400058.

BASU, Jyoti, B.A., Bar-at-Law, (Middle Temple, England); Chief Minister, West Bengal; Member: Polit. Bureau, Central Cttee. & W. Bengal State Cttee. of C.P.I. (M), since 1964. *b.* July 8, 1914. Was actively associated with Indian League (headed by late V. K. Krishna Menon), Fedn. of Indian Students in Great Britain and Secy. London Majlis during student days; elected to Bengal Leg. Council in 1946. Went underground when Communist Party was banned in 1948. M.L.A., West Bengal, 1952-71; elected M.L.A. in 1977 elections. Was Mem.: Communist Party of India, 1940 to 1967; Central Exec. Cttee. and National Council, C.P.I.; West Bengal Cttee., C.P.I.; detained without trial on several occasions since 1948; was Leader of the Opp., West Bengal Assembly (1957-71); Dy. Ch. Min., W. Bengal, March-Nov. 1967; and Feb. 1969-Mar. 1970; Chief Minister, West Bengal (1977 onwards). *Address:* 55-B, Hindustan Park, Calcutta 700029.

BASU, Dr. K. S., Vice-Chancellor, International Academy of Management; partner, K. S. Basu & Partners. *b.* Feb. 8, 1915. Dir., Jamnalal Bajaj Instt. of Management Studies, Bombay Univ. (1965-77); Pres., Asian Assn. of Management Orgn. (1968-71); Personnel Dir. and Mem. of the Board, Hindustan Lever Ltd., 1956-65; Pres.: All India Management Assn., 1963-66; Bombay Management Assn., 1961-64; Bombay Productivity Council, 1960-63; Indian Instt. of Personnel Management, 1964; Hon. Pres., Asian Assn. of Management Orgn.; Visiting Prof., Univ. of Western Australia, 1970. *Address:* 13, Rajat Aptts., Mt. Pleasant Rd., Bombay 400006.

BHABHA, C. H., M.A., B.Com., Hon. Magistrate, Chairman: United Carbon India Ltd.; Spencer & Co. Ltd.; E. Merck India Ltd. *b.* July 22, 1910. Commerce Member, Interim Govt. of India, Sept. 1946; Mem., Works, Mines and Power, Govt. of India, Nov. 1946; Commerce Min., Govt. of India, 1947; Leader, Indian Delegation to and elected Vice-Pres., World Trade Cfce., Havana, Nov. 1947; Vice-Chmn., Rural Banking Enquiry Cttee.; Chmn., Indian Banks Assn. (1955-61); Ex-Chmn., National Shipping Board. *Address:* 49, Cuffe Parade, Colaba, Bombay 400005.

BHABHA, Jamshed Jehangir, B.A. (Hons.), (Cantab.); Company Director. Knight Commander of order of Merit of Republic of Italy (1976); Commander's cross of the order of Merit of the Federal Republic of Germany (1978); Commander's cross of the order of the Crown. Belgium (1979). *b.* Aug. 21, 1914, Bombay; Dir.: Tata Sons Ltd., Central India Spg., Wvg. & Mfg. Co. Ltd., Indian Hotels Co. Ltd., Vantech Investments Pvt. Ltd., etc.; Chmn.: Tata Press Ltd., Tata Services Ltd., Tata McGraw-Hill Publishing Co. Ltd., Stewarts and Lloyds of India Ltd., Marg Publications; Vice-Chmn.: Associated Building Co. Ltd.; Vice-Chmn. & Founder Trustee-in-charge: National Centre for the Performing Arts; Mg. Trustee: Sir Dorabji Tata Trust, J. N. Tata Endowment for the Higher Educ. of Indians, Lady Tata Memorial Trust, J.R.D. Tata Trust, Prince of Wales Museum, Homi Bhabha Memorial Trust, Homi Bhabha Fellowships Council; Chmn.; Governing Board, Tata Instt. of Social Sciences, Bombay; Mem.: Exec. Cttee., Indian Council for Cultural Relations, Court of Governors, Adm. Staff Coll. of India, Indian Instt. of Science, Governing Council, Natl. Instt. of Design, Council of Mgmt., M. Visvesvaraya Ind. Res. & Devpt. Centre, Mem.: Administrative Council of the Intnl. Fund for the Promotion of Culture: UNESCO. *Address: Res.:* 12, Little Gibbs Rd., Malabar Hill, Bombay 400006. *Office:* Bombay House, Homi Mody St., Bombay 400023.

BHAGWANDAS, Boda Jagmohandas, A.F.I.I., A.C.I.I., pioneer of Reinsurance broking in India. *b.* June 9, 1917. Chmn.: J. B. Boda Group of Companies. Connected with insurance and reinsurance of fire, marine hull and cargo, accidents, oil prospecting and satellites etc. *Address:* Maker Bhavan, No. IV, Thackersy Marg, Bombay 400020.

BHAGWAT, Durgabai Narayan, internationally acclaimed researcher in anthropology, sociology and history of culture, scholar-litterateur and stormy petrel of Marathi literature. *b.* 1909. Has written 30 odd books, a few of which have won her prestigious literary awards. Completed the 547 Jataka stories in Marathi in seven volumes. Some of her outstanding books are 'Buddhist jurisprudence', 'Romance in sacred lore', 'Primer of anthropology', 'Rutuchakra', 'Pais', etc. The last won her Sahitya Akademi Award. She was awarded Padma Shri which she refused to accept. In 1975, she was chosen president of 51st Annual Marathi Sahitya Sammelan. She acted as Vice-pres. of the People's Union for Civil Liberties (PUCL) from which she resigned in 1983. *Address:* Salim Compound, 4th Floor, Khetwadi, 12th Cross Lane, Bombay 400004.

BHAGWATI, Mr. Justice Prafullachandra Natvarlal, B.A. (Hons.) (Maths.), L.L.B., Judge, Supreme Court of India, since July 1973. *b.* Dec. 21, 1921. While doing M.A. (Maths.) joined National Struggle and was imprisoned, 1942; took his Law degree and started practice at Bombay High Court; Judge, Gujarat High Court, July 1960-Sept. 1967; Actg. Governor, Gujarat State, Dec. 7-25, 1967; Chief Justice, Gujarat High Court, Sept. '67-July '73; became a judge of the Supreme Court on 17th July 1973; was Chmn.: Legal Aid Cttee., and Judicial Reforms Cttee., Govt. of Gujarat; Chmn. of the Res. Cttee. of the Indian Law Instt., Cttee. for Implementing Legal Aid Schemes; Mem.: Law Faculty of Delhi Univ. and the M.S. Univ. of Baroda; Exec. Cttee. of the Indian section of the Intnl. Law Assn.; Cttee. of Experts of the ILO; Vice-Chmn., Permanent Standing Legal Aid Cttee, set up by LAWASIA. *Address:* Supreme Court of India, New Delhi 110001.

BHARATI, Dr. Dharam Vir, M.A., Ph.D., Editor, *Dharmayug*, Bombay, since 1960. *b.* Dec. 25, 1926.; Lecturer, Allahabad Univ. upto 1959; joined Times of India as Editor of *Dharmayug*, 1960. *Address:* 6, Shakuntal, Sahitya Sahawas, Bandra East, Bombay 400051.

BHOGILAL, Pratap, M.A., Industrialist. *b.* Oct. 25, 1916; Cttee. Mem., Bombay C. C. & I, Indian Merchants Chamber; was its Pres., 1968; Cttee. Mem., Indo-French Chamber of Commerce; Mem., Exec. Cttee., Employers' Fedn. of India; Cttee. Mem., Millowners' Assn.; its Chmn. for three terms; Pres., Shree Ram Mills Ltd.; Chmn.: Batliboi & Co. Ltd., Dir. of many leading investment, engineering, textile, chemical and mfg. cos. *Address:* 26-A, B. G. Kher Marg, Malabar Hill, Bombay 400006.

BHOOTHALINGAM, Subramanya, M.A. (Cantab.). I.C.S. (Retd.). Chairman: Glaxo Laboratories (India) Ltd., Tribeni Tissues Ltd. *b.* Feb. 22, 1909. Joined Indian Civil Service, 1931; Secy., Min. of Steel, Mines & Fuel, 1955-61; Min. of Fin., 1963-64; Dept. of Econ. Affairs. 1964-66; Chmn., Cttee. on Rationalisation and Simplification of Tax Structure, Min. of Fin., 1966-67; Dir. Gen., National Council of Applied Eco. Res., N. Delhi (1967-74); *Chmn.:* Study Group on Wages, Incomes and Prices, 1977-78. *Address:* 5, Vasant Marg, Vasant Vihar, New Delhi 110057.

BHRANY, Dr. Upendranath, B.Sc. (Hons.) (Chem.), DIISc. (Chem. Engg.), AIISc. Sc.D. (Met. & Mineral Engg.), Columbia, New York. Awarded William Campbell Fellowship, 1955-57; National Metallurgists' Award for outstanding contribution in Ferrous Metallurgy, 1966. Mg. Dir., Modella Steels & Alloys Ltd., Bombay, since 1974. *b.* July 19, 1929. Head of Raw Materials Technology Secn., Applied Research Lab., US Steel Corpn., Monroeville, 1959-64; Chief Metallurgist, Indian Iron & Steel Co., 1964-68; Dy. Gen. Mgr. (Tech.) Burnpur, 1968-72; Dy. Gen. Mgr., 1972-73, Gen. Mgr., 1973-74; Dir., Unitech Indl. & Management Consultants (P) Ltd.; Balaji Crygeniques (P) Ltd.; U.N. Indl. Devptt. Orgn., Expert in Mexico, 1980; Mem., Council, Ind. Instt. of Metals, Exec. Council, Steel Furnace Assn. of India; Fellow: Instt. of Engineers (India), ISI; Chmn., SMDC 5, Wrought Steel Products Sectional Cttee. on Standardisation of Steel Products; designs and holds us patent for screening device for dry solids. *Address:* Off Resham Bhavan, V. N. Rd., Bombay 400020. *Res.:* 16 A, Lands End, Dongersi Rd., Bombay 400006.

BIKANER, Dr. Karnisingh of, B.A. (Hons.), Ph.D., Ex-Ruler of Bikaner. *b.* April 21, 1924. Elected to Lok Sabha five times as an independent from 1952 to 1977; represented India in Clay Pigeon Shooting in Olympics at Rome, Tokyo, Mexico, Munich, Moscow; World Championships at Oslo, 1961, Cairo 1962 (won World Silver Medal after tie for Gold), Wiesbaden 1966, Bologna 1967, San Sebastian 1969; Asian Shooting—Tokyo 1967, Korea 1971 (won Gold Medal in Clay Pigeon), Kuala Lumpur 1975 (Silver Medal), Asian Games—Teheran 1974 (Silver Medal in Clay Pigeon & Bronze Medal in Skeet); won Clay Pigeon Welsh Grand Prix, North Wales Cup and North Western Cup, England in 1981. Participated in IX Asian Games—New Delhi and won team Silver medal for Clay Pigeon Shooting; awarded Arjuna Award in 1962 for shooting. National Champion in Clay Pigeon Trap & Skeet for many times. *Address:* Lallgarh Palace, Bikaner 334001, Rajasthan.

BILLIMORIA, Smt. Gulestan Rustom, M.A., Licentiate, Trinity Coll. of Music, London; Special Exec. Magistrate; Sheriff of Bombay (1957); Social Worker; closely connected with a large number of local, national and intnl. orgns. in the field of social welfare. Represented Maharashtra on the Central Social Welfare Board in Delhi. Padma Bhushan, 1972; *Address:* 4, Mereweather Road, Apollo Bunder, Bombay 400039.

BIRENDRA SINGH, Rao, Min. for Agriculture, Rural Development and Civil Supplies, Govt. of India, since 1980. *b.* Feb. 20, 1921. Mem., Punjab Leg. Council, 1954-66; Haryana Leg. Assembly, 1967-71; Min., Punjab, 1956-61; Speaker, Haryana Vidhan Sabha and later Chief Min., 1967; Leader of the Opposition, Haryana Vidhan Sabha, 1968-71: Mem. Lok Sabha, 1971-77, 1980. *Address:* Krishi Bhavan, Dr. R. Prasad Rd., New Delhi 110001.

BIRLA, Ganga Prasad, B.Sc., Industrialist; Chmn.: Orient Paper Mills Ltd., Panafrican Paper Mills (EA) Ltd., & Nigeria Engg. Works Ltd. *b.* Aug. 2, 1922. Mg. Dir., Birla Bros. Pvt. Ltd.;

Chmn.: Hindustan Motors Ltd.; Ex-Pres. Indian Paper Mills Assn. & Employers' Assn., Calcutta. *Address:* Birla House, 8/9, Alipore Rd., Calcutta 700027; *Office:* Birla Bldg., 9/1, R. N. Mukherjee Rd., Calcutta 700001.

BIRLA, Lakshminiwas, Industrialist. *b.* 1909, at Pilani, Rajasthan; Dir. of various Industries; Chmn., Birla Brothers Pvt. Ltd., Pres., F.I.C.C. & I., 1967-68; Founder of a number of ednl. Insttns. *Address: Residence:* Birla Niket, Raja Santosh Road, Calcutta 700027; *Office:* 9-1, R. N. Mukherjee Rd., Calcutta 700001.

BIRLA, Sudarshan Kumar, Industrialist. *b.* 1934. *Chmn.:* O.C.M. India Ltd., Universal Electric Ltd.; Vice-Chmn., Mysore Cements Ltd.; Dir., Birla Bombay Pvt. Ltd., Universal Electrics Ltd., Century Spg. & Mfg. Co. Ltd., etc.; Mem. Cttee., Fedn. of Indian Chambers of Commerce & Ind. and Intnl. Chamber; Former Pres., Indian Chamber of Commerce; delegate to the CAFEA, 1966 and UNCTAD '72. *Address:* Birla Bldg., 9/1, R. N. Mukherjee Rd., Calcutta 700001.

BOIDEVAIX, H.E. Mr. Serge, Amb. of France to India, since 1983. *b.* 1928. Joined Min. of Foreign Affairs, 1953; served in French Missions abroad and in the Foreign Min., 1953-69; Counsellor attached to the Cabinet of the Minister for Defence, 1965-73; Dir. of Cabinet of the Minister for Foreign Affairs, 1973-74; Counsellor, Prime Minister's Cabinet, 1974-76; Amb. to Poland, 1977-80; Head, N. Africa and West Asia Dn. in the Min. of Foreign Affairs, 1980-83. *Address:* Embassy of France, 2, Aurangzeb Rd., New Delhi 110011.

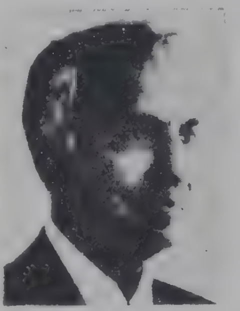
BURNEY, Sayed Muzaffar Hussain, M.A., I.A.S., Governor of Nagaland, Manipur & Tripura, since Aug. 12, 1981. *b.* Aug. 14, 1923. Jt. Secy., Min. of Agriculture, 1965-72; Addl. Secy., Petroleum & Chemicals, 1973-75; Secy., Inf. & Broadcasting, 1975-77; Chief Secy., Orissa, 1979-80; Secy., Min. of Home Affairs, Govt. of India, 1980-81. *Address:* Raj Bhavan, Kohima 797001, Nagaland.

CARIAPPA, General K.M., O.B.E. (1945); Former High Commr. in Australia and New Zealand and former Commander-in-Chief, Indian Army. *b.* Jan. 28, 1899, in Kodagu (Coorg), South India. Commissioned from Daly Coll., Indore, Dec. 1919; saw service in Mesopotamia, 1920-22; N.W.F.P., 1923-25, 1928-30 and 1946, Staff College, Quetta, 1933-34; Iraq, Syria and Iran, 1941-42 and in Burma (Arakan), 1943-44; Imperial Defence Coll., Lond., 1947; Dy. Chief of the Gen. Staff for some time as Major-General, Aug. '47-Dec. '47; G.O.C.-in-chief, Eastern Command, Dec. 1947 to 12th Jan. 1948 as Lt. Gen.; G.O.C.-in-Chief, Western Command, Jan. 1948 to Jan. 1949; Commander-in-Chief, Army, 1949-53; conferred "Legion of Merit", Degree of Chief Commander by Pres. Truman, U.S.A., May 1950; Hon. rank of a full Gen. in the Nepalese army, 1952; Hon. Degree of Doctor of Sci., Agra Univ., 1953; Mysore Univ., 1977; Mangalore Univ., 1983; Indian High Commr. in Australia and in New Zealand, 1953-56; presently, 'Father', Indian Ex-services League, New Delhi. *Address:* The Roshanara, Madikeri, Kodagu, Karnataka State.

CHANDRA, Satish, B.A., LL.B., Chief Justice, Calcutta High Court. *b.* Sep. 1, 1924. Advocate, Allahabad High Court, Aug. 1947; Addl. Judge, Oct. 1963; Permanent Judge, Sept. 1967; Chief Justice, Allahabad High Court, 1978-83. *Address:* High Court, Calcutta 700001.

CHANDRACHUD, Yeshwant Vishnu, B.A., LL.B., Chief Justice of India, since Feb. 22, 1978. *b.* July 12, 1920. Joined the Bombay Bar in '43 and practised till '61; Asstt. Govt. Pleader, 1952-58; Govt. Pleader, Bombay High Court, 1958-61; Judge, Bombay High court, Mar. 61-Aug. 72; Judge, Supreme Court of India, Aug. '72-Feb. '78; Pres., Intl. Law Assn. (India Br.), since Feb. 1978; Pres., Indian Law Instt. since Feb. 1978. *Address:* Supreme Court, Tilak Marg, New Delhi 110001.

CHANDRASEKHAR, Sivaramakrishna, M.Sc., D.Sc., Ph.D. (Cantab.): Fellow, Indian Acad. of Sciences & Indian National Science Academy; Fellow, Royal Society, London; R. K. Chandorkar Gold Medal & Prakya Ganpatrao Gold Medal (Nagpur Univ.), 1950; CSIR Silver Jubilee Award, 1972; S.S. Bhatnagar Prize, 1972; FICCI Award for Science, 1979; Scientist and Prof., Raman Research Instt., Bangalore, since 1971. *b.* Aug. 6, 1930. Research Scholar, Raman Research Instt., 1950-54; 1851 Exhibition Scholar, Cavendish Lab., Cambridge 1954-57; DSIR Fellow & Mem., Acad. Staff, Univ. Coll., Lond., 1957-69; Research Fellow, Faraday Research Lab., Royal Insttn. Lond., 1959-61; Prof. of Physics, Univ. of Mysore, 1961-71; UGC National Lecturer, 1974; Malaviya Memorial Lecturer, Banaras Hindu Univ., 1975; Princess Leelavathi Memorial Lecturer, Mysore Univ. 1976; Ex-Chmn., Indian National Cttee. for Crystallography; attended important cfces. abroad; has published several research papers & monographs. *Address:* Raman Research Instt., Bangalore 560080.



CHANDRASEKHAR, Dr. Subramanyan, is one of the world's leading astrophysicists, who has achieved fame for his theories on the evolution of stars. *b.* Lahore, Oct. 19, 1910; M.A. Presidency College, Madras, 1930; Ph..D. Trinity College, Cambridge, 1933; Sc.D., Cambridge, Mysore Univ., North-western Univ., Newcastle upon Tyne, I.I.T., Michigan Univ., Liege Univ. (Belgium), Oxford, Delhi Univ., Carleton Univ., Harvard Univ. Came to U.S. in 1936, naturalized in 1953. Govt. of India scholar in theoretical physics at Cambridge 1930-34, etc. Padma Vibhusan, 1968, Recipient Bruce Medal Astron. Soc., Pacific 1952, Gold medal, Royal Astron. Soc. (London), 1953. Rumford medal, American Acad. of Arts & Scs., 1957; Fellow, Royal Soc. (London)., Awarded Royal Society's Copley medal and the Birla Memorial award, both in 1984. Mg. Editor, The Astrophysical Journal 1952-71. *Address:* Lab for Astrophysics and Space Research, 933, 56th St., Chicago IL 60637.

CHARAT RAM Shriram, Industrialist. *b.* Jan. 1, 1918. Mg. Dir. Delhi Cloth and Gen. Mills Co. Ltd.; Chmn.: Jay Engg. Works Ltd., Shriram Refrigeration Industries Ltd., Shriram Pistons and Rings Ltd., Pres.: FICC & I., 1973-74; Mem.; Board of Import Substitution (GOI); Govng. Body; Admve. Staff Coll., Hyderabad, Shriram College of Commerce, New Delhi, etc. *Address:* 26, Sardar Patel Rd., New Delhi 110021.

CHATTOPADHYAY, Smt. Kamladevi, Author and Social Worker. Chmn.: Children's Books Trust & Dolls Museum; Ex-Chmn., All India Handicrafts Bd. *b.* 1903. Mem. AICC and Wkg. Cttee., Orgg. Secy., then Pres.; Patron, All India Women's Confce.; Pres., Indian Co-op. Union; Founder, Indian National Theatre Centre of the Intnl. Theatre Instt.; Fellow, Indian Council for Cultural Relations, Sangeet Natak Akademi, 1974; Awards: Watumal, Magsaysay for Community Leadership, 1966, "Deshikottama" awarded by Vishwa Bharati Univ. at Shantiniketan for outstanding achievements, 1970; award for Dramatics by Maharashtra Natya Parishad, 1976; Hon. Doctorate by B.H.U. *Address:* 20, Canning Lane, New Delhi.

CHAVAN, Shankarrao B., Minister without portfolio since July 1984; was Min. for Planning Govt. of India & Dy. Chmn., Planning Commn. *b.* July 14, 1920. Dy. Min. & Min., Bombay State, 1956-62; M.L.A. & Min. for Irrigation & Power, Maharashtra, 1967 & 1972; Ex-Chief Min., Maharashtra State; was Min. for Edn. & Social Welfare, Govt. of India. *Address:* Yojana Bhavan, Parliament St., New Delhi 110001.

CHAVAN, Yeshwantrao Balwantrao. *b.* March 12, 1913, at Devrashtre, Sangli Dist. Started legal practice at Karad; Pres. D.C.C., 1941; Mem. Maharashtra P.C.C., since 1940; was its Secy., 1948, 1949 and 1950; elected M.L.A., Bombay, 1946; apptd. Parly. Secy., 1946; Min. for Civil Supplies, Bombay, 1952; was Min. for Local Self-Govt., Forests, Community Projects, Bombay; elected leader, Cong. Leg. Party, Bilingual Bombay State, Oct. 1956; unanimously re-elected leader, 1957; Chief Min.: Bombay State, 1956-60; Maharashtra, May 1960-Nov. 1962; elected leader, Maharashtra Leg. Cong. Party, 1962; elected unopposed to the Lok Sabha in Nasik by-election, 1964; Min. for Defence, Govt. of India, 1962-66; Min. for Home, Govt. of India, 1966-70; Min. for Finance, 1970-74; Min. for External Affairs, Oct. 1974-Mar. 1977; was Governor on the Board of: Intnl. Monetary Fund, World Bank, Asian Devpt. Bank, July 1970-Oct. 1974; Leader, Congress Parly. Party, 1977; Leader of Opposition 24th March, 1977 to 11th April, 1978 and from 10th July, 1978 to 27th July 1979; Chmn. Eighth Finance Commn. from 21st June, 1982; Dy. P.M. and Minister of Home Affairs, 28th July, 1979; elected to Lok Sabha , 1980: elected leader of Congress (I) Parly. Party, 1980; resigned, May 25, 1981; joined Cong. (I), Nov. 1981: participated in the Indo-Pakistan peace talks at Tashkent, Jan. 1966: was Pres., Instt. for Defence Studies and Analysis. *Address:* 1, Race Course Rd., New Delhi 110011.

CHIDAMBARAM, Muthia Annamalai, Industrialist. *b.* Oct. 12, 1918. Chmn., South India Corpn. (Agencies) Pvt. Ltd., Southern Petrochemical Industries Corpn. Ltd., Automobile Products of India Ltd., Bombay; was Dir., Indian Aluminium Co. Ltd., Hon. Consul-General for Philippines in Madras; Hon. Secy., Tamil Isai Sangam; Pres., Southern India Chamber of Commerce & Industry, 1951-57; was Pres., Board of Control for Cricket in India & All India Lawn Tennis Assn.; Hon. Treasurer, Board of Control for Cricket in India; Ex-Mayor, Madras; Ex-Chmn. & Senior Steward, Madras Race Club; Hon. Col., Indian Territorial Army. *Address:* South India House, 99, Armenian St., P.B. 113, Madras 600001.

CHINNAPPA, Kuppanda Muthayya, B.E., Industrialist. *B.* Feb. 5, 1914. Chmn.: Tata Projects Ltd., National Radio & Electronics Co. Ltd., Yashmun Engineers Ltd., Chemical Terminal Trombay Ltd.; Vice-Chmn. and Mg. Dir.: Tata Hydro-Electric Power Supply Co. Ltd., Andhra Valley Power Supply Co. Ltd., Tata Power Co. Ltd., Dir.: Tata Sons Ltd., Tata Industries Ltd., Tata Consulting Engineers Intnl. A. G. Zug, DSMA-Tata Ltd., Toronto, Canada, Stewarts and Lloyds of India Ltd., Elpro Intnl. Ltd., Karnataka State Electronics Devpt. Corpn. Ltd., Dir. in-charge: Tata-Dilworth, Secord, Meagher & Associates; Mem.: Socy. of Power Engineers, Bd. of Consultants, Damodar Valley Corpn.; Fellow: Institution of Engineers (India); won National Design & Res. Forum Award (1972). *Address:* Tata Sons Ltd., Bombay House, Homi Mody St., Bombay 400023.

CHOWGULE, Vishwasrao Dattaji, Industrialist-cum-Businessman; Chmn. & Mg. Dir., Chowgule & Co. P. Ltd. *b.* Aug. 25, 1915. Entered business of exporting tiles, timber, etc. and shipping agency; organised mining and export of iron ore from Goa in the late '40s besides pelletization of ore from second half of '60s; actively associated with diversified fields such as shipowning, textiles, brewery, cement manufacture, explosives (industrial) manufacture, construction of self-propelled. barges/crafts, tugs dredgers, trawlers etc., processing & export of marine products, mfg. of engg. equipment & machine tools, etc.: Mem.: Mineral Devpt. Board; Dir., I.C.C. Intnl. Maritime Bureau, London; Underwriting Member of Lloyds, London; Chmn.: All India Shippers' Council; Intnl. Bureau of Transport Users of Intnl. Chamber of Commerce; Vice-Chmn., Sea Transport Commission and Working Party, Sea Transport, Users of I.C.C. *Address:* Chowgule & Co. P. Ltd., Mormugao Harbour 403803 (Goa).

CORREA, Charles Mark, world renowned architect committed to housing the urban poor; awarded Royal Instt. of British Architects' gold medal for 1984, B. Arch. (Michigan); M. Arch. (M.I.T.), Architect in pvt. practice; Chmn., Housing, Urban Renewal & Ecology Board, BMRDA. *b.* Sep. 1, 1930. Director, CIDCO; executed Gandhi Memorial Museum, Sabarmati Ashram, Ahmedabad, Townships at Bombay, Bangalore and Misurata in Libya, Beach resorts at Kovalam, Goa and Andaman Islands, U.N. Housing Project at Lima for Govt. of Peru; Mem., Steering Cttee., Padma Shri in 1972. Aga Khan Award for Architecture; Fellow of Indian Instt. of Architects; Hon. Fellow of American Instt. of Architects; Hon. Doctorate, University of Michigan. *Address:* 9, Mathew Rd., Bombay 400004.

DAHANUKAR, Dattatraya Mahadeo, Chairman and Mg. Director, Maharashtra Sugar Mills Ltd.; Chmn., Tilaknagar Distilleries & Ind. Ltd.; Dir.: Schrader-Scovill Duncan Ltd., Ceekay Automotive Products Ltd., Intnl. Electronic Speciality Gases Pvt. Ltd., etc.; Mg. Dir.: M. L. Dahanukar and Co. Pvt. Ltd. *b.* Dec. 21, 1911. Mem.: Indian Merchants' Chamber, Bombay F.I.C.C & I., New Delhi, Advy. Council, SIES Instt. of Management Studies. *Address: Office:* Industrial Assurance Bldg., Churchgate, Bombay 400020. *Res.:* 'Ratnakar', 26, Dr. B. Indrajit Rd., Malabar Hill, Bombay 400006.

DAHANUKAR, Shantaram Mahadeo, B.E., M.I.E., S.M. (U.S.A.). Industrialist. *b.* Sept. 30, 1913. Chairman: Universal Can & Containers Ltd., Deccan Merchants' Co-op. Bank Ltd.; Dir.: Bharat Commerce & Industries Ltd., The East India Hotels Ltd., Indian Organic Chemicals Ltd., Plastic Resins & Chemicals Ltd.; Former Dir.: Bennett, Coleman & Co. Ltd.; Exec. Vice-Pres.: Planwell Consultants Pvt. Ltd., New United Construction & Engg. Co. Pvt. Ltd., etc.; Pres.: Property Owners' Assn., 1956-58; Maharashtra Chamber of Commerce, 1967-68; All India Manufrs. Orgn., 1970; Sheriff of Bombay, 1968-69; Treasurer, B.P.C.C., 1971-72. *Address:* Industrial Assurance Bldg., Churchgate, Bombay 400020. *Res.:* Shree Sadan, 4-A, M. L. Dahanukar Marg, Bombay 400026.

DALMIA, S.N., S.E.M., Industrialist. *b.* April 10, 1927. Chairman, Director and/or Partner, Ramkumar Beniprasad, Hind Enterprises, Dalmia Industries Pvt. Ltd., North Bengal Sugar Mills Co. Pvt. Ltd., Shri Gaurishankar Jute Mills Co. Pvt. Ltd., Gunny Exporters Pvt. Ltd., General Produce Co. Pvt. Ltd., Asarco Investment & Trading Co. Pvt. Ltd., Ashoka Rubber Co., etc.; Ex-Commr., Port of Calcutta; Pres.: National Alliance of Young Enterpreneurs, N. Delhi; Former Pres.: Merchants' Chamber of Commerce, Calcutta, Machinery Dealers' Assn.; Cttee. Mem.: FICCI. *Address:* 21, R. N. Mukherjee Rd., Calcutta 700001.

DALMIA, Vishnu Hari, Industrialist. *b.* May 1924. Chmn.: Dalmia Dairy Industries Ltd., Pres.: Dalmia Cement (Bharat) Ltd.; Dir.: Dalton Property Co. Ltd., Manchester (U.K.), Sree Meenakshi Mills Ltd., Madurai; Vice-Pres. Indian Fedn. of United Nations Assn., N. Delhi; Ex-Pres.: Cement Manufrs., Assn., Indian Sugar Mills Assn., All India Distillers' Assn., Indian National Cttee. of Intnl. Chamber of Commerce; Ex-Vice-Pres., World Fedn. of U.N. Assns., Geneva; Founder: Vishnu Hari Dalmia Award for best book in Rajasthani language; Mem., Main Cttee. of F.I.C.C. & I.; travelled extensively in Europe, Far East & USA. *Address: (Office):* 'Hansalaya', 11th Fl., 15, Barakhamba Rd., New Delhi 110001.

DAMANI, Surajratan Fatehchand, Industrialist; Chmn., Simplex Mills Co. Ltd., Bombay; Maharashtra State Financial Corpn. and several other concerns. *b.* July 14, 1912. Ex-Chmn., Millowners' Assn., Bombay (1971 and 1972); Treasurer, Congress Party in Parl., 1969-71; life mem., Indian Parly. Assn. *Address:* 11, Cuffe Parade. Colaba, Bombay 400005.

DAVE, R. M., Industrialist. *b.* Jan. 7, 1918. Sheriff of Madras, 1962-63; Pres., Hindustan Chamber of Commerce, 1958-59; Cttee. Mem., F.I.C.C. & I., 1963-64; Dir.: Sovereign Spg. & Wvg. Mills Ltd., Madras; Bharat Earth Movers Ltd., Bangalore; Garden Reach Shipbuilders & Engrs. Ltd., Calcutta, etc. *Address: Office:* Broadway, Madras 600001. *Res.:* 9-A, Venkatanarayana Rd., Madras 600017.

DAWSON, Admiral Oscar Stanley, PVSM, AVSM, Chief of the Naval Staff, since Mar. 1, 1982. *b.* Nov. 13, 1924. Graduated from the Defence Services Staff Coll., Wellington, 1957; National Defence Coll., New Delhi, 1973; held various afloat and important ashore appointments; Hon. Naval A.D.C. to the President, since Mar. 2, 1981; commanded INS "TALWAR" and INS "NILGIRI";

Dir., Naval Operations, Naval Hq., 1961; Gen. Manager, Goa Shipyard Ltd.; Flag Officer Commanding, Eastern Fleet, Feb. 1978-Mar. 1979; Flag Officer Commanding-in-Chief, Southern Naval Command. *Address:* Naval Hqrs., DHQ PO., New Delhi 110011.

DEMPO, Vasantrao Srinivasa, Industrialist; Chmn.: Dempo Group of Companies; Goa Carbon Ltd.; Dempo Dairy Industries Ltd.; Chmn. & Mg. Dir., Dempo Steamships Ltd. & V. S. Dempo & Co. P. Ltd. *b.* March 4, 1916. *Chmn.:* West Coast Hotels Ltd., Dempo Mining Corpn. Ltd., Navhind Papers & Pubns. P. Ltd., Dempo Engg. Works Ltd., Dempo Engg. Services, Dempo Sons Pvt. Ltd., Dempo Brothers Pvt. Ltd., etc.; Mem., India Cttees., Lloyds Register of Snipping and American Bureau of Shipping; Pres., Goa Chamber of Commerce, 1947-48, 1973-74 & 1975-76; Goa Mineral Ore Exporters' Assn., 1967-69 and 1978-80; Chmn., Advy. Cttee. for Coll. of Engg., Goa, Farmagudi and Pres. of Goa Educ. Socy. *Address:* Dempo House, Campal, Panaji 403001 (Goa).

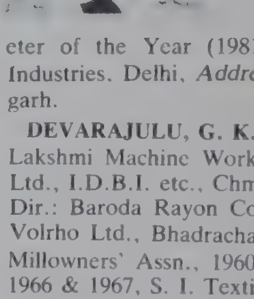
DEO, Madhav Gajanan, M.B.B.S., M.D., Ph.D., F.N.A., F.A.Sc., F.A.M.S., Shakuntala Amir Chand Prize, I.C.M.R. (1960), Khanolkar Prize, Indian Assn. of Pathologists (1966); Amrit Mody Award (1972); B. C. Guha Lecturer, INSA (1978); Fellow: Indian Sci. Academy (1974); Indian Academy of Sciences (1976); Secy., (Biology) National Acad. of Medical Sciences (1977); Pres.: Indian Assn. of Cancer Res.; Scientist; Professor of Pathology, All India Instt. of Medical Sciences, New Delhi (1974-78); Research Dir., Cancer Res. Instt., Bombay, since 1978. b. Apr. 6, 1932. Assoc. Prof. of A.I.I.M.S., 1968-74; invited speaker at several national and intnl. symposia on cell biology of nutrition. *Address:* 2-B, Atomic Energy Apt., B. G. Kher Marg, Bombay 400006.

DESAI, Mr. Justice Dhirajlal Ambalal, B.A. (Bom.), LL.B. (Bom.), Judge, Supreme Court of India, since Sept. 30, 1977. *b.* May 9, 1920. Hony. Prof. of Law, Sarvajanik Law Coll., Surat, 1949-60; Dist. & Sessions Judge, Vadodara, Bhavnagar & Nadiad, 1960; Judge, Gujarat High Court, Feb. 1968; Vice-Chmn., Legal Aid Cttee.; Chmn., Supreme Court Legal Aid Cttee., High Court Legal Aid Cttee., 1973-77; Ex-Chmn., Labour Law Enquiry Cttee., Gujarat; Mem., Presidential Cttee. to enquire into Israel's crimes in Lebanon, Judicial Reforms Cttee., Senate of M.S. Univ. of Baroda; Vice-Chancellor, Brihad Gujarat Sanskrit Parishad; led delegation to XIth Congress of Intnl. Democratic Lawyers' Assn., Malta, 1980; gave key-note address at Intnl. Seminar at Mexico, 1983. *Address:* Supreme Court of India, Tilak Marg, New Delhi 110001.

DESAI, Morarji Ranchhodji, B.A. *b.* Feb. 29, 1896. Entered Provincial Civil Service of the Govt. of Bombay, 1918; resigned to join the C.D. Movement, 1930; Secy., Gujarat P.C.C., 1931-37 and 1939-46; Min. for Revenue, Co-op. Agr. and Forests, Bombay, 1937-39; Min. for Home and Revenue, Bombay, 1946-52; Chief Min. of Bombay, 1952-56; Min. for Commerce and Industry, Govt. of India, 1956-58; Treasurer: A.I.C.C., 1950-58; Hon. Fellow, Coll. of Physicians and Surgeons, Bombay, 1956; Hon. Doctor of Laws, Karnatak Univ., 1957; Union Fin. Min., 1958-63; resigned the ministership to do party work, Aug. 1963; Chmn., Adm. Reforms Commn., Govt. of India, 1966-67; Chancellor, Gujarat Vidyapeeth, Ahmedabad; Chmn.: Navjivan Trust; Hindustani Prachar Sabha; The Collected Works of Mahatma Gandhi; Trustee: Gandhi Smarak Nidhi; Gandhi Peace Foundation; elected to the Lok Sabha from Surat in 1957, 1962, 1967, 1971 and 1977; Dy. Prime Minister & Min. for Finance, Govt. of India, 1967-69; imprisoned during the emergency, June 1975-Jan. 1977; sworn in as Prime Minister, March 24, 1977; resigned on 15th July, 1979. *Address:* Oceana, Marine Drive, Bombay 400020.

DESAI, Narotam Mangaldas, LL.B., Industrialist. Chmn., Larsen & Toubro Ltd., since 1978. *b.* Mar. 25, 1924. Pres., Indo-German Chamber of Commerce; Vice-Pres., Mah. Econ. Devpt. Council; Associated with Larsen & Toubro Ltd., since 1946; co-optd. as a Dir.; became Vice-Chmn. and Jt. Mg. Dir., 1969; Pres. and Chief Executive, 1977; also Chmn., Engg. Construction Corpn. and Larsen and Toubro (Singapore) Pvt. Ltd.; Dir., EWAC Alloys, L & T McNeil, Audco India and Tengl (subsidiary/assoc. cos. of L & T); Mem., Bd. of Governors of I.I.M., Ahmedabad, NITIE and IIT, Bombay; Govg. Council of Indian Instt. for Foreman Trg.; Chmn., Bd. of Apprenticeship Trg., W. Regn.; was Pres., A.I.M.O., 1980-81; Hony. Consul-Gen. for Denmark. *Address:* Larsen & Toubro Ltd., L & T House, Ballard Estate, Bombay 400038.

DESHPANDE, Purushottam Laxman, M.A., LL.B., D.Litt. (Honoris Causa), Ravindra Bharati Univ., D.Litt. (Honoris Causa), Poona Univ., Sangeet Natak Akademi Award (1967), writer, actor & producer of plays in Marathi and a distinguished speaker. *b.* Nov. 8, 1919. Wrote scripts, acted & directed music in Marathi films; was the first Chief Producer, A.I.R. Television, Delhi; was trained in the B.B.C.; did one-man shows on the Marathi stage namely *Batatyachi Chawl* etc.; estd. Pu. La. Deshpande Foundation, to promote cultural & national activities; *Vyakti Ani Valli*, won the Sahitya Akademi award, 1966. *Address:* 1, Roopali, 777, Shivaji Nagar, Pune 411004.



DEV, Kapil, Cricketer. *b.* Jan.6, 1959. Played first Test against Pakistan, 1979; India's 21st Test Captain & 197th in all Test annals; led India for the West Indies series, 1983; led India to victory in the third Prudential World Cup scoring a Cup best of 175 not out against Zimbabwe; fourth all-rounder in Test cricket; stands youngest in history to make 1,000 runs and take 100 wickets in a period of only one year and 108 days; Arjuna Award (1980); Padma Shri (1981); Cricketer of the Year (1981); Pub. Relations Officer with Mody Industries, Delhi, *Address:* C/o Haryana Cricket Assn., Chandigarh.

DEVARAJULU, G. K., Industrialist. *b.* Oct. 26, 1911. *Chmn.:* Lakshmi Machine Works Ltd., Lakshmi Textile Exporters Pvt. Ltd., I.D.B.I. etc., Chmn. & Mg. Dir.: Lakshmi Mills Co. Ltd.; Dir.: Baroda Rayon Corpn. Ltd., Indian Dye Stuff Inds. Ltd., Volrho Ltd., Bhadrachalam Paperboards Ltd.; was Chmn., S.I. Millowners' Assn., 1960; Indian Cotton Mills, Fedn., Bombay, 1966 & 1967, S. I. Textile Research Assn., Coimbatore, from its inception till 1969; Assn. of Man-Made Fibre Ind., Bombay; Devpt. Council for Man-Made Fibres set up by the Govt. of India; Devpt. Council for Textile Machinery Ind.; was Pres., F.I.C.C.I., New Delhi, 1982-83; Former Chmn. of AIOE, New Delhi; was Hon. Consul for Italy for Kerala State and Coimbatore Distt. *Address:* Shell House, 58, Avanashi Rd., Coimbatore 641037.

DHAWAN, Dr. Satish, B.A. (Maths. & Physics), M.A. (Eng. Litt.), B.E. (Mech. Engg.), M.S., Ae.E., Ph.D., D.Sc. (Honoris Causa), Roorkee, 1972, Cranfield Instt. of Tech. (U.K.), 1975, LL.D. (Honoris Causa), Bombay, 1976, F.A.Sc., M.Ae.S.I., Foreign Hon. Mem. of the American Acad. of Arts & Scs., Foreign Associate, National Academy of Engg., U.S.A.; Ex-Director, Indian Instt. of Science, Bangalore; Secy. to the Govt. of India, Deptt. of Space; Chmn.: Space Commn., since June 1972; Indian Space Res. Orgn., since Sept. 1972. *b.* Sept. 25, 1920. Sr. Scientific Officer, Deptt. of Aeronautics, Ind. Instt. of Science, 1951; Asstt. Prof. & Prof. and Head of Deptt. of Aeronautics, 1952-62; Chmn. AVRO HS-748 Evaluation Cttee, 1973-75; Exec. Delegate for India, Commonwealth Advy. Aeronautical Research Council, 1964-71; Mem., Board of Directors, Hindustan Aeronautics Ltd., 1964—72; U.G.C., 1966—71; Scientific Advy. Cttee. to the Cabinet, 1965—68. *Address:* 7/11, Palace Cross Road, Bangalore 560020.

DILBAGH SINGH, Air Chief Marshal, PVSM, AVSM, VM, Chief of the Air Staff Aug. 31, 1981-Sept. 1984. *b.* Mar. 10, 1926. Commissioned in the I.A.F., Sept. 1944 and worked in various capacities; took over command of Air Force Stn., Pune, in the rank of Air Commodore, Aug. 1970; Air Force Stn., Ambala, Jan. 1974; Air Officer Commanding-in-Chief, No. 1 Operational Group, Sept. 1976; Air Officer Commanding-in-Chief, Western Air Command in the rank of air Marshal, Sept., 4, 1978; Vice Chief of Air Staff, Air Hqrs., Jan. 1, 1981; awarded Vayu Sena Medal, 1966; Ati Vishisht Seva Medal, 1970 & Param Vishisht Seva Medal, 1979. *Address:* Vayu Bhavan, New Delhi 110011.

DOSHI, Maganlal Harilal, Chmn.: Silk & Art Silk Mills' Assn. Ltd., since Oct. 1973; Art Silk Co-operative Ltd., since 1976. Dir.: Nehal Textile Processor Pvt. Ltd., Echjay Textile Ind. Pvt. Ltd., Vaishali Bleaching Co. Ltd.; Manufacturer & Exporter of Rayon/Synthetic Fabrics, Steel Forging, Automobile Parts, etc. *b.* Nov. 8, 1925. Partner: Neeru Silk Mills, Mansukh Dyg. and Ptg. Mills, B. Nagindas & Co., Jaypee Dyg. House, Shree Neminath Enterprises; Dir., Echjay Electronics P. Ltd., Bombay, Echjay Industries P. Ltd.; Mem.: Mg. Cttee., Fedn. of Indian Art Silk Wvg. Industry; Ctee. of Admn. of Silk & Rayon Textile Export Promotion Council; Council of SASMIRA & Dir., Rayex (India) Ltd.; Trustee & Vice-Pres., Mumbai Pradesh Arya Vidya Sabha; Harilal Jaychand Doshi Vishwa Vatsalaya Trust; Trustee, Harilal Jechand Doshi Hospital Trust, Rajkot. *Address:* Echjay Overseas Trades, 83, Bajaj Bhavan, Nariman Pt., Bombay 400021.

ERADI, Vettath Balakrishna, B.A., B.L., Judge, Supreme Court of India, since Jan. 30, 1981. *b.* June 19, 1922. Enrolled as Advocate, Madras High Court, Jan. 15, 1945; shifted practice to Kerala High Court at Ernakulam, Nov. 1956; Sr. Govt. Pleader, 1961; Judge, Kerala High Court, April 5, 1967; Chief Justice, Jan. 19, 1980. *Address:* 2, Teen Murti Marg, New Delhi 110011.

ESCALANTE, H. E. Mr. Fernando Maria Fernandez, Amb. of Argentina to India. *b.* 1920. Joined Min. of Foreign Relations, 1937; served in Argentine Missions in Uruguay, Belgium, Spain and Colombia, 1945-54; Counsellor, Permanent Mission to U.N., 1955; Gen. Manager, Ford Motor Co., Argentina, 1963-68; First Vice-Pres., Indl. Bank and Dir., National Devpt. Bank, 1968-73; Deptt. of Intnl. Orgn. Foreign Office, 1974-75; Pres.: Argentine delegation to Colombo Non-Aligned Summit Cfce. (August 1976). Dir. & Prof. of Post-graduate Courses on business admn. of Argentine Univs. of Buenos Aires, Mar del Plata & Bahia Blanca (1963-75). *Address:* Embassy of Argentina, B-8/9, Vasant Vihar, New Delhi 110057.

FERREIRA, Michael, thrice winner of the World Amateur Billiards Championship in 1977, 1981 and 1983. *b.* Oct. 1938 in Bombay. Set up seven world records and mentioned in the Guinness Book of World Records. Awarded 'Padma Bhushan' in 1984. Winner of *Sports week's* title 'Sportsman of the Year, 1983'. *Address:* C/o Bandra Gymkhana, Bandra, Bombay 400050.

GADGIL, Gangadhar, M.A., Marathi Writer; Economic Advisor, Hindustan Construction Co. Ltd., Bombay; Pres.: Mumbai Marathi Sahitya Sangh; Mumbai Grahak Panchayat; Mem.: Govng. Council, Maharashtra Chamber of Comm. and ASSOCHAM, FICCI & AIEI; Eco. Sub-Cttee., Bombay Chamber of Comm. Plng. & Eco. Affairs Sub-Cttee., Indian Merchants' Chamber, Exec. Bd. Sahitya Akademi. *b.* Aug. 25, 1923. Has written short stories, novels, literary criticism, one-act plays, travelogues etc. (Marathi & English); awarded first prize in the Marathi short story competition held under the auspices of the *New York Herald Tribune;* awarded prizes for his books *Talavatalen Chandane, Ole Unha* and *Sata Samudra Palikade* by the Bombay Govt., 1956, 1958, 1960; recipient of Rockefeller Foundation Fellowship in 1957; Ex-Vice-Pres., Marathi Sahitya Mahamandal; Hon. Prof. of Marathi; Univ. of Bombay; Pres.: Marathi Sahitya Sammelan, 1981. *Address:* 4, 'Abhang', Sahitya Sahawas, Bandra (E), Bombay 400051.

GANDHI, Smt. Indira, Prime Minister of India, since Jan. 14, 1980; in-charge of Atomic Energy, Space Science & Technology; Chairperson: Non-aligned Movement, since Mar. 1983; Commn.; Pres.: Council for Sci. and Ind. Research. *b.* Nov. 19, 1917. Educated at Vishwabharati and Oxford Universities. Min. for Inf. & Broadcasting, Govt. of India, 1964-66; Prime Minister of India, Jan. 1966-Mar. 1977; held addl. charge of Min. of External Affairs, Sept. 5, 1967-Feb. 14, 1969; Finance, July 16, 1969-June 26, 1970; Home Affairs, June 1970-Nov. 1973; Defence, Jan. 1980-Jan. 1982; Mem., Congress Wkg. Cttee. and Central Election Cttee. of the Party, 1955; Central Parly. Bd. of Congress, 1958; Chmn., National Integration Council of A.I.C.C.; Pres., All India Youth Congress, 1956; Indian National Congress, 1959-60 and Indian National Congress (I), since Jan. 1978; Leader, Congress (I) Parly. Party, since Jan. 1980; Pres., Bd. of Trustees of Kamala Nehru Memorial Hos.; Trustee, Gandhi Smarak Nidhi, Kasturba Gandhi Memorial Trust; Chmn., Swaraj Bhavan Trust; Founder & Chmn., Bal Sahyog, New Delhi, since 1954; Vice-Chmn., Central Social Welfare Bd., 1953-57; Life Patron, Indian Council for Child Welfare; Vice-Pres., Intnl. Council of Child Welfare, Patron-in-Chief, Indian Council for Africa, 1960; Chancellor, Visva Bharati Univ., 1966-77 and Since Sept. 1982; Jawaharlal Nehru Univ. & North-Eastern Univ., 1966-77; Chmn., Sageet Natak Akademi, 1965-74; Pres., Himalayan Mountaineering Instt.; Dakshina Bharat Hindi Prachar Sabha; Nehru Memorial Museum & Library Socy.; Jawaharlal Nehru Memorial Fund; Patron, Indian Socy. of Intnl. Law; winner of U.N. Population Award and Radio Netherlands' Asian Personality Award, 1983; has travelled widely in India and all over the world. *Address:* 1, Safdarjang Rd., New Delhi 110011.

GANESAN, Sivaji, a leading Cine Artiste; Member, Rajya Sabha since Feb. 1982. *b.* Oct. 1, 1928. Joined a Drama Troupe at the age of six; Best Actor Award at the Afro-Asian Film Festival, Cairo, 1960, for the picture, *Veera Pandiya Kattabomman;* winner of Best Actor Award from Tamil Nadu Govt. and many Film Journals; has acted in 198 films so far. *Address:* 16, Boag Rd., T. Nagar, Madras 600017.

GANGOLY, Ashok Kumar, B.Sc. (Nagpur), Film Artiste. *b.* Oct. 13, 1911. Asstt. Cameraman and Laboratory-in-charge, 1935; appeared as Hero for first time in *Jeevan Naiya.* Has starred in more than 200 films, prominent of which are: *Achhut Kanya, Bandhan, Jhoola, Naya Sansar, Kismat, Sangram, Parineeta, Afsana, Bandish, Ek Hi Rasta, Bhai Bhai, Chalti Ka Nam Gadi, Kanoon, Yeh Rastey Hain Pyarke, Gumrah, Karigar, Aaj Aur Kal, Mahal, Ashirvad, Victoria 203, Chhoti si Baat, Khatta Meetha,* etc. Also produced films: *Samaj, Ragini,* Received Sangeet Natak Academy Award 1959; Padma Shri 1962; National Award for Acting 1968. *Address:* 47, Union Park, Chembur, Bombay 400071.

GANGULY, Dr. Ashok Sekhar, B.Sc. (Hons.) (Bombay), M.S., Ph.D. (Illinois, U.S.A.); Chmn., Hindustan Lever Ltd., Bombay, since 1980. *b.* July 28, 1938. Joined Hindustan Lever Ltd. and worked in various capacities, 1962-1971; Devpt. Manager, 1973; Gen. Factory Manager, 1974; Technl. Dir., 1977. *Address:* Hindustan Lever House, 165-166, Backbay Reclamation, Bombay 400020.

GARWARE, Bhalchandra Digamber, Padma Bhushan; Sp. Executive Magistrate; Industrialist; Ex-Sheriff of Bombay; *b.* 21st December, 1903. Founded Garware Group of Inds. comprising of Garware Nylons Ltd., Garware Plastics and Polyester Pvt. Ltd., Garware Synthetics Pvt. Ltd., Garware Filament Corpn. Pvt. Ltd., Garware Paints Ltd., Garware Wall-Ropes Ltd., Garware Shipping Corpn. Ltd., Modern Nets Ltd., Garware Finance Corpn. Ltd.; Hon. Dir., Wall Industries Inc., Beverly, New Jersey

(U.S.A.); Chmn., Export/Import Adv. Cttee., Govt. of India; held Presidentship of Maharashtra Chamber of Commerce (1954-58) and All India Plastics Mfgrs. Orgn. (1950-51), (1956-57); Chmn., Maharashtra Economic Devpt. Council, 1956-64 & its Pres., 1965; is connected with State, Central and Intnl. Orgns.; Ex-Chmn., Maharashtra State Financial Corpn. (1964-77); Ex Vice-Chmn., State Bank of India; Ex-Dir., Central Board of State Bank of India; Ex-Pres., Local Board of State Bank of India; Ex-Dir., Sutlej Cotton Mills Ltd., Tata Electric Co., Bajaj Electricals Ltd.; Ex-Pres., Assn. of Synthetic Fibre Industry; Trustee, Maharashtra Chamber of Commerce; Chmn.: Export-Import Advy. Cttee. (Western Zone), Ministry of Commerce, Govt. of India; Founder of several Charity trusts giving large donations in the field of education, health, sports and public activities; widely travelled. *Address:* 'Kapur Mahal', Netaji Subhash Rd., Bombay 400020.

GAVASKAR, Sunil Manohar, India's top run-scoring cricket player. *b.* July 10, 1949. Scored world record of 30 centuries, played 99 test matches, 174 innings and 8394 runs. Captained 41 test matches, the first being in 1975-76 series against New Zealand. Nominated India's Cricketer of the Year in 1971 and Wisden in 1980. Arjuna award in 1977, Padma Bhushan in 1979, Sportsman of the Year 1983. Awarded L. R. Tairsee gold medal, S. V. Rajadhyaksha trophy in 1973, Bombay Cricket Association Colours and Justice Tendolkar Rolling trophy and Veer Savarkar silver medal in 1971. *Address:* Suraiya, Fourth Floor, Sir Pochkhanwalla Road, Worli, Bombay 400018.

GEORGE, Manapurathu Verghese, B.Sc. (Madras), M.Sc., Ph.D. (Agra), F.A.Sc. (1974), Bhatnagar Prize (1973), F.N.A. (1975); Scientist. *b.* Oct. 3, 1928. Lecturer, St. John's Coll., Agra, 1954-55; Assoc. Prof. of Chemistry, I.I.T., Kanpur, 1963-65, Prof of Chemistry, 1965-72; Head, Deptt. of Chemistry, 1967-70; Prof. Since 1972; conducted research in organic reaction mechanisms, photochemistry, organometallic chemistry and heterocyclic chemistry. *Address:* Prof. of Chemistry, I.I.T., Kanpur 208016.

GHANI KHAN CHOUDHURY, A.B.A., Minister of Railways, Govt. of India, since Sept. 2, 1982. *b.* Nov. 1, 1927. M.L.A., West Bengal, 1952, 1967, 1969, 1971, 1972 & 1977; Min. for Irrigation, West Bengal, 1971 and later Min. for Irrigation & Power; Pres., W. Bengal Congress (I), 1978; elected to Lok Sabha, 1980. Min. of Energy & Irrigation and later Min. of Energy (1980—Sept. 1, 1982). *Address:* Rail Bhavan, New Delhi 110001.

GHATAGE, Dr. Vishnu Madhav, M.Sc., D.Phil., FIE, FASC, FNI, MAESI, C.E.; Padma Shri; Scientist; Mg. Director, Product Designers Private Ltd., Bangalore. *b.* Oct. 24, 1908. Prof. of Aeronautical Engg., Indian Instt. of Sci., 1942-47; Chief Designer, HAL; indigenously designed, developed and produced (i) HT-2—Trainer Aircraft, (ii) Pushpak—Light Trainer Aircraft, (iii) Krishak and (iv) "Kiran"; also designed and developed a Turbo jet Engine (HJE-2500) for the Jet Trainer. Gen. Manager, HAL, 1967-69. *Address: Office & Res.:* 7, Bore Bank Rd., Bangalore 560046.

GHOSH, Tushar Kanti, Editor and Chmn., *Amrita Bazar Patrika*, Calcutta; Editor, *Jugantar*. *b.* Sept. 21, 1898. Founded: *Jugantar* (Calcutta), Bengali daily; *Allahabad Patrika*, English daily and *Amrita*, a Bengali Weekly at Calcutta. Pres.: A.I.N.E.C., 1946-47; I.E.N.S., 1948-49; Chief Edit.: *Amrita Prabhat* (Hindi daily) 1977; Chief Edit., *Northern India Patrika* (Lucknow) 1977; Ex-Chmn., P.T.I.; U.N.I.; Chmn., A.B.C.; Trustee, Press Instt. of India; Vice-Pres. and Mem.: Exec. Cttee., Intnl. Press Instt.; Hony. Life Mem. & Chmn., Indian Sect., Commonwealth Press Union. *Address:* Editor, *Amrita Bazar Patrika*, Calcutta; Chief Editor, *Northern India Patrika*, Allahabad 211001.

GODREJ, Sohrab Pirojsha, B.Sc., Industrialist; Chmn., Godrej Cos. in India. *b.* June 3, 1912. Dir., Godrej (Indonesia); Ex-Chmn. and Mem., Indian Nat. Cttee., Intnl. Chamber of Commerce; Ex-Chmn., Indian Socy. of Advertisers; Ex-Pres.: Indian Merchants' Chamber; Rotary Club of Bombay; Alliance Francaise de Bombay; Council for Fair Business Practices; Vice-Pres., World Wildlife Fund-India; Indian Council of World Affairs; Goving. Body, Indo-French Chamber of Commerce and Ind.; Ex-Mem., Govng. Body, Indian Instt. of Foreign Trade; Vice-Pres., Family Plng. Assn. of India; Pres.: Belgo-Indian Chamber of Commerce, Indo-French Technical Assn., Ex-Pres., Indo-Japanese Assn., Pres., India-Iran Cultural Socy.; Trustee, World Wildlife Fund—India; The 1001: A Nature Trust. *Address:* 40-D, B. G. Kher Marg, Bombay 400006.

GORE, Dr. Madhav Sadashiv, M.A. (1948), Dip. in S.S.A. (1945), Ph.D. (1960), Homi Bhabha Fellow (1982); Vice-Chancellor, Univ. of Bombay since June 1, 1983; Dir., Tata Instt. of Soc. Sciences (1962-82) and Chmn., Ind. Council of Soc. Sci. Res., 1971-77, Cttee. on Police Trg. (1971-77). *b.* Aug. 15, 1921. Sr. Lecturer, Delhi School of Social Work, Delhi, 1948-53; its Principal, 1953-62. *Address:* University of Bombay, Fort, Bombay 400032.

GROVER, Justice Amarnath, M.A., LL.B., Chairman, Press Council of India, since 1979. *b.* Feb. 15, 1912. Called to Bar, 1936; Barrister, High Court, Lahore, 1936-47; later at High Court of E. Punjab, Simla & Chandigarh; Judge, High Court, Punjab, 1957-68; Judge, Supreme Court of India, 1968-73; Chmn., Finance Cttee., Indian Branch of Intnl. Law Assn., Mem., Govng. Body, Indian Law Instt., 1970-73; Mem., World Peace through Law Centre; Consulting Jurist. *Address:* 132, Sunder Nagar, New Delhi 110003.

GURAYA, Prof. Sardul S., B.Sc., M.Sc., Ph.D., D.Sc., F.N.A., Educationist & Scientist; Prof. & Head, Deptt. of Zoology, Coll. of Basic Sciences & Humanities, Punjab Agri. Univ., Ludhiana. *b.* Oct. 12, 1930. Specialised in reproductive physiology including endocrinology, cell biology, histochemistry, cytochemistry & developmental biology; won S. S. Bhatnagar Prize for outstanding contributions to biological sciences, 1973 and various other honours. *Address:* Punjab Agri. Univ., Ludhiana 141001.

HARIBHAKTI, V. B., leading Chartered Accountant and distinguished academician. Founder & Sr. Partner, Haribhakti & Co., Chartered Accountants. *b.* Oct. 8, 1929. Pres., Instt. of Chartered Accountants of India, 1967-68; its Central Council Mem., 1961-73; Pres., Indian Merchants Chamber, 1978; Ex-Dir., Central Bank of India & National Rayon Corpn. Ltd.; Dir. of several public limited cos.; has written several articles and given public speeches on Taxation Policy, Pub. Finance & Mgmt. Accounting; Mem., A.I.Bd. of Technl. Studies in Mgmt., Faculty of Commerce, Univ. of Bombay & M.S. Univ., Baroda. *Address:* Bombay Mutual Chambers, 19-21, Ambalal Doshi Mrg., Bombay 400023.

HARIVALLABHDAS, Balkrishna, Chmn. and Mg. Dir., Shri Arbuda Mills Ltd., Ahmedabad; Dir., Shri Ambica Mills Ltd., Ahmedabad. *b.* Aug. 27, 1921. Dir., The Aruna Mills Ltd.; Polyolefins Inds. Ltd., Gokak-Patel-Volkart Ltd., etc.; Chmn., Indian Cotton Mills Fedn. (1975-77); Pres., Ahmedabad Millowowners' Assn., 1967-68; Gujarat Chamber of Commerce & Ind., 1971; Chmn., Gujarat State Fin. Corpn., 1967-69; Pres., Rotary Club, Ahmedabad, 1964-65; Mem., Senate of Gujarat Univ., 1955-60; Board of Governors of the Indian Instt. of Mgmt., Ahmedabad, 1966-68. *Address:* Camp Rd., Shahibaug, Ahmedabad 380004.

HARIVALLABHDAS, Jaykrishna, Industrialist; Chmn.: Gujarat State Fertilizers Co. Ltd.; Shri Ambica Mills Ltd.; Nirlon Synthetic Fibres & Chemicals Ltd.; Bharat Vijay Mills Ltd.; S. L. M. Maneklal Industries Ltd. *b.* Oct. 31, 1919. Dir.: Indian Dyestuff Inds., Bayer (India) Ltd., Investment Corpn. of India Ltd. and several other Cos.; Congress M.L.A., Bombay from Ahmedabad

City. 1952; Pres.: Gujarat Chamber of Commerce, 1961-62; Ahmedabad Millowners' Assn., 1956-57, 1960-61; Exec. Chmn., Gujarat Cancer and Res. Instt.; Mayor, Ahmedabad, 1961-64. *Address:* Gokul, Camp Rd., Ahmedabad 380004.

HEMA MALINI, Cine Artiste and Bharata Natyam dancer. *b.* Oct. 16, 1948. Has given many public performances before Indian and world dignitaries; has received many titles for her classical art of *Bharata Natyam* and is also thorough with *Kuchipudi, Mohini Attam* and *Kathak* style of dance; introduced to films with *Sapnon Ka Saudagar* in 1969; has completed more than 75 films, many of which had been jubilee hits; runs 'Natya Vihar Kalakendram'—Popular school of classical dance and music—in Madras, since 1970. *Address:* 17, Jai Hind Socy., 12th Rd., J. V. P. D. Scheme, Bombay 400056; 24, Kasturi Ranga Iyengar Rd., Madras 600018.

HIMATSINGKA, B., Industrialist; Chmn. & Mg. Dir., Indian Carbon Ltd.; Chmn., Amines & Plasticizers Ltd. *b.* Sept. 18, 1926. Founded Bharat Plastics Ltd.; Dir., several indl. orgns. both in private and public sectors; Ex-Pres., Indian Assn. for Productivity, Quality and Reliability, Bengal Table Tennis Assn.; Vice-Chmn.: Indian Cancer Socy. (Assam Branch); Ex-Pres.: Nat. Alliance of Young Entrepreneurs; Indian Chemical Mfgrs'. Assn. *Address:* 6, Old Post Office St., Calcutta 700001.

HINGE, Kamalakar Sadashiv, M.Sc., M.S. (Chem. Engg.) (Cincinnati Univ., U.S.A.), Industrialist. Vice-Chmn., Tata Oil Mills Co. Ltd. *b.* Sept. 16, 1919; Dir., Tata Inds. Ltd., Tata Exports Ltd., Af-Taab Investment Co. Ltd., Unitata Sdn. Bhd., Malaysia; Mem.: Govng. Council, Tata Energy Research Instt.; Mg. Cttee., Tata Mgmt. Trg. Centre. *Address:* Bombay House, Homi Mody St., Bombay 400023.

HYDARI, Akbar, M.A. (Hons.) Oxford, Knight Commander of Royal Order of Polar Star, and of Royal Order of Vass from Swedish Govt. for services to Indo-Swedish Indl. Co-opn.; Chmn., WIMCO Ltd., since 1964; Consul-Gen. for Sweden in Bombay. *b.* Sept. 15, 1919. Joined Wimco, 1942: Dy. Mg. Dir., 1951; Mg. Dir., 1956-73; Chmn.: Atlas Copco (India) Ltd., Associated Bearing Co. Ltd.; Dir., Bombay Burmah Trdg. Corpn. Ltd., Voltas Ltd., Central Board, Res. Bank of India, Mahindra & Mahindra Ltd., Metal Box Co. of India Ltd., Citurgia Biochemicals Ltd., Tata Iron & Steel Co. Ltd., Forbes Forbes Campbell Ltd., Eureka Forbes Ltd., Chemicals & Fibres of India Ltd., Crescent Dyes and Chemicals Ltd. etc.; Pres.: Bombay Chamber of Commerce & Ind., 1963-64; Assoc. Chambers of Commerce and Ind. of India, 1975; Indo-German Chambers of Commerce, 1982; has served on the Exec. Cttee. of the Employers' Fedn., Gen. Council of Mayo Coll., Govng. Body of Admive. Staff Coll., Central Bd. of L.I.C., Council of the Nat. Socy. for Clean Cities, etc. *Address:* Indian Mercantile Chambers, Nicol Rd., B. Estate, Bombay 400038.

HYVARINEN, H. E. Dr. Risto, Ph.D. (Pol. Sci.), Ambassador of Finland to India, since Oct. 1, 1979. *b.* Apr. 23, 1926. Chief of Section, Min. for Foreign Affairs, 1965; Dir. for Political Affairs, 1967; Amb. to Yugoslavia and Greece, 1972; Spl. Rep. of the U.N. Secy.-Gen. to the Cfce., of the Cttee. on Disarmament, Geneva, 1975-78. *Address:* Embassy of Finland, 25, Golf Links, New Delhi 110003.

IRANI, Cushrow Russy, F.C.II., F.I.Arb. Lond., F.F.II. (Bom.), Mg. Dir., *The Statesman,* since Sept. 1968. *b.* Oct. 29, 1930. Career in Insurance (1949—July 1968); Past Pres., I.E.N.S.; Past Chmn., A.B.C. and PTI.; Dir.: Press Foundation of Asia, Manila; Freedom Award (1977); Astor Award (1977); Knight Commander of the Order of Isabella Catholica of Spain (1983); Mem. of Exec. Bd. of the Intnl. Press Instt. from June 1977, became its Chmn. in May 1980 and was re-elected in March 1981; Mem., Exec. Cttee, Intnl. Fedn. of Newspaper Publisers and Chmn. of its Press Devpt. Co-opn. Cttee. *Address:* Statesman House, 4, Chowringhee Square, Calcutta 700001.

ISMAIL, H.E. Mr. Razali, B.A. (Hons.), High Commr. for Malaysia to India, since June 2, 1982. *b.* April 14, 1939. Min. of Foreign Affairs, 1962; worked in New Delhi, Madras and Paris; Principal Asstt. Secy. (Pol.), Min. of Foreign Affairs, 1968 and 1972; Counsellor, London, 1970; Charge d'Affaires, Embassy at Vientiane, 1974; Under Secy. (Pol.), Min. of Foreign Affairs, 1976; Amb. to Poland, German Democratic Republic, Czechoslovakia and Hungary, 1978-82. *Address:* High Commn. of Malaysia, 50-M, Satya Marg, Chanakyapuri, New Delhi 110021.

IYA, Vasudeva Kilara, B.Sc. (Hons.), M.Sc., Docteur-es-Scis. with hon., Paris, 1955, Res. Admr. *b.* Sept. 16, 1927. Sci. Officer, Bhabha Atomic Res. Centre, Trombay, 1955-65; Head, Isotope Div., 1965-76; Dir., Isotope Group, 1975; Project Dir., ISOMED, 1972-75; Adv., Indian Del. Gen. Cfce., and IAEA 1957, '60, '79; Delegate, Geneva Cfce. for Peaceful Uses of Atomic Energy, 1971: recipient, Indian Chem. Mfgrs. Assn. Award, 1976; Homi Bhabha Meml. Oration Award, Soc. Nuclear Medicine India, 1975; Fellow, Maharashtra Acd. Sci., Econ. Devpt. Inst., World Bank; Mem., Nat. Assn. for Applications Radioisotopes in Radiation in Industry (founding Pres., 1976-79); Chief Sci. Editor, Radioisotopes, Production and Control, IAEA, 1971; Regnl. Editor, Radiation Physics & Chemistry; Assoc. Editor, Radiochem & Radioanalytical Letters. *Address: Res.:* 21, Saras Baug, Sion-Trombay Rd., Deonar, Bombay 400085. *Office:* Isotope Group, Bhabha Atomic Res. Centre, Trombay, Bombay 400085.

IYENGAR, Mrs. Sultana Zulfiqar Ali, M.Sc., Ph.D. (Leeds), F. Instt. P. (1972); Scientist, Asstt. Dir., Dy. Dir., and Scientist Emeritus National Physical Laboratory, New Delhi, since 1964. *b.* Aug. 19, 1922. Hudson Scholar (1939); Aladin Gold medallist (1941), Akbar Hydari Gold medallist (1943). Overseas Scholar, Govt. of India, for X-Ray Crystallographic Res.; Regnl. Res. Lab., Hyderabad, 1949-54; Central Fuel Res. Instt., Bihar, 1954-62; Solid State Physics Lab., Delhi, 1962-64; conducted res. on the study of crystal structure, phase transformations, thermal expansion and optical examination of semi-conductor materials, minerals, ores, etc.; Fellow, Instt. of Physics, Lond., 1972; Mem.: Indian Sci. Cong. Assn., Assn. of Scientific Workers of India. *Address:* National Physical Laboratory, New Delhi 110012.

JAIN, A. K., B.Sc., (Hons.), Industrialist *b.* 1934. Chmn., Bennett, Coleman & Co. Ltd., New Central Jute Mills Co. Ltd; Ex-Pres., Federation of Indian Chambers of Commerce & Industry, Cement Mfgrs. Assn., Indian Nat. Cttee. of the Intnl. Chamber of Commerce, All India Orgn. of Employers, Indian Chamber of Commerce, Calcutta, Bihar Chamber of Commerce and Bihar Industries Assn.; Dir., Central Board of the Reserve Bank of India; Mg. Trustee, Bharatiya Jnanpith. Leader of visiting FICCI delegation to Pakistan & Indo-USSR co-operation agreement to Russia and leader of Indian delegation to the eighth meeting of the Indo-U.S. joint business council at San Francisco, all in 1983. *Address:* 8, Camac St., Calcutta 700017; Times House, 7, Bahadur Shah Zafar Marg, New Delhi-110002; *Res.:* 9, Alipore Park Place, Calcutta 700027; 6, Sardar Patel Marg, New Delhi 110021.

JAIN, Alok P., B.A., Sahitya Visharad, Industrialist. *b.* Oct. 26 1935, Chmn., Alok Udyog Ltd.; Trustee, Sahu Jain Trust, Bharatiya Jnanpith. *Address:* P. N. B. House, 5, Parliament St., New Delhi 110001.

JAIN, Girilal, B.A. (Hons.), Editor, *The Times of India,* since Sept. 2, 1976. *b.* July 26, 1922. Sub-Editor, *The Times of India,* July 1950; Reporter, July 1951; Chief Reporter, May 1958-Jan. 1961; Spl. Corspdt. in Karachi, Jan. 1961-Jan. 1962; London, Feb. 1962-Mar. 1964; Asstt. Editor, May 1964-Oct. 1970; Resident Editor, *The Times of India,* New Delhi, 1970-76. *Address:* C/o Times of India, P. Box No. 213, Bombay 400001.

JAIN, Hari Krishan, B.Sc. (Hons.), Assoc., I.A.R.I., Ph.D. (Wales), Scientist; Dir., I.A.R.I., New Delhi, since Jan. 1977. *b.* May 28, 1930. Distinguished for contributions in the field of induced mutation, genetic recombination and crop improvement: awarded Shanti Swarup Bhatnagar Memorial Prize for biological sciences; Rafi Ahmed Kidwai Award and Jawaharlal Nehru Fellowships; Fellow, Indian Nat. Sci. Academy and Indian Academy of Sciences; Associate Editor, *Journal of Plant Breeding*, Berlin; Chmn.: Food & Agri. Cttee., DAE, Bombay; Mem.: Bd. of Trustees, CIMMYT, Mexico, and Intnl. Bd. for Plant Genetic Resources (FAO), Rome; Awarded "Padma Shri". *Address:* Dir., Indian Agri. Res. Intt., New Delhi 110012.

JAIN, Sahu Shriyans Prasad, S.E.M., Industrialist; ex-M.P. (Rajya Sabha), 1952-58. *b.* 1908. Pres., Educ. Cttee. of the Dist. Bd., Bijnor; and Vice-Chmn., Municipal Bd., Najibabad, for many years; Chmn.: Dhrangadhra Chemical Works Ltd.; Carona Sahu Co. Ltd.; Jain Spinners Ltd.; Bhagwan Bahubali Pratishtapana Mahamastakabhisheka Celebrations Wkg. Cttee.; Dir.: Podar Mills Ltd.; Bajaj Electricals Ltd.; Premier Automobiles Ltd.; Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd.; Bombay Oxygen Corpn. Ltd.; Simplex Mills Co. Ltd.; Chmn.: Bhagwan Mahavir 2500th Nirvan Mahotsav Samiti, Bombay; Pres.: Bharatvarshiya Digambar Jain Tirthkshetra Cttee., Digamber Jain Mahasamiti, Delhi; Bhartiya Jnanpith, Delhi; Bhagwan Mahavir Kalyan Kendra, Bombay; Ex-Pres.: Alkali Mfgrs'. Assn. of India; F.I.C.C. & I.; All India Digamber Jain Parishad; Bharat Jain Mahamandal; Pres. for two years of Afro-Asian Econ. Cfce. and presided over the Cfce. held at Karachi in Dec. 1963; Mem.: Indian Merchants' Chamber, Bombay; Chmn. and Trustee: Bombay Hospital Trust; Trustee: Bhartiya Kala Kendra, N. Delhi; Ex-Trustee: Bombay Port Trust; Founder: Shriyans Prasad Charitable Trust, Bombay; Dhrangadhra Chemicals Charitable Trust, Bombav; Sahu Shriyans prasad Jain Arts and Commerce College, Dhrangadhra, Bhartiya Vidya Bhavan's S. P. Jain Instt. of Mgmt. & Res.; Treasurer, Bhartiya Vidya Bhavan. *Address:* Shikhar Kunj, 29-A, Carmichael Rd., Bombay 400026.

JAIN, Sudhanshu Kumar, M.Sc., Ph.D., Scientist; Dir., Botanical Survey of India, Calcutta, since Jan. 1978. *b.* June 30, 1926. Distinguished for contributions in plant taxonomy, medicinal plants, ethnobotany & conservation of flora; awarded gold medal of Nat. Acad. of Sci. P. Maheshwari gold medal; Fellow Botanical Socy., Indian Nat. Sci. Acad.; Nat. Acad. of Sci.; Linnean Socy., Intnl. Socy. of Tropical Ecology. Awarded Nat. Environment fellowship. *Address:* Botanical Survey of India, P.O. Botanical Gardens, Howrah 711103.

JESUDAS, K. Joseph, Ganagandharvan (1968), Playback Singer. *b.* Jan. 10, 1940. Received Nat. Award for the Best Singer, 1973 and 1974; Kerala State Govt. Award from the date of its inception; Ex-Chmn., Sangeeta Nataka Academy. *Address:* A/102, Everest Apartments, Church Road, Marol, Andheri East, Bombay 400059.

JHA, Lakshmi Kant is a world-renowned economist. B.A. (Hons.), I.C.S., D.Litt. *(Honoris Causa)* from Kashmir Univ. Chmn., Economic Administration Reforms Commission since 1981. *b.* Nov. 22, 1913. Chief Contlr. of Imports and Exports, 1950-52; Secy., Heavy Inds., 1955-56; Special Secy., Commerce and Ind., 1957-60; Secy. to Prime Minister, 1964-67; Governor, R.B.I., 1967-70: Amb. to U.S., 1970-73; Governor Jammu & Kashmir State, 1973-81., Chmn: G.A.T.T., 1957-58; Interim Co-ordn. Cttee. on Intnl. Commodity Arrangement, 1959-61; U.N. Group of Eminent Persons on Multinational Corpns., 1973-74; Indirect Taxes Enq. Cttee., 1976; Commonwealth Group of Indl. Specialists, 1976; Mem: Willy Brandt Comm., Comm. on Intnl. Devpt. Issues 1977-79; Visited London, Washington, Ottawa, Paris, Bonn and Rome as emissary of Prime Minister to explore possibilities of reviving North-South dialogue, 1984. *Address:* 10, Janpath, New Delhi-110001.

JIAN, H.E. Mr. Shen, Amb. of People's Republic of China to India. *b.* 1915. Dir., America & Australasia Deptt., Min of Foreign Affairs; Amb. to Cuba; Vice Min. of the Intnl. Liaison Deptt., Central Cttee. of Communist Party of China; Vice-Pres., Chinese People's Instt. of Foreign Affairs; Mem., Stg. Cttee., Fifth Chinese People's Political Consultative Cfce. *Address:* Embassy of the People's Republic of China, 50-D, Shantipath, Chanakyapuri, New Delhi 110021.

JOSHI, Shri Krishna, M.Sc., D.Phil., F.N.A., F.A.Sc.; Watumull Memorial Award (1965), CSIR Silver Jubilee Award (1973), S. S. Bhatnagar Prize (1972), Meghnad Saha Award (1974); Scientist; Prof., Physics Deptt., Roorkee Univ. *b.* June 6, 1935. Lecturer, Allahabad Univ., 1957-65; Visiting Lecturer, Univ. of California, 1965-67; short-term visits to Argonne National Laboratory, U.S.A., 1966 & Intnl. Centre for Theoretical Physics, Trieste, Italy, 1969, 1971 & 1974, U.K. & U.S.A., 1973; have conducted & guided research in Solid State Physics, Atomic & Molecular Physics. *Address:* Physics Deptt., Roorkee Univ., Roorkee 247672 (U.P.).

JUSSAWALLA, Dr. Darab Jehangir, F.N.A., M.S., F.R.C.S., F.I.C.S., F.A.C.S., F.A.M.S., F.A.Sc., Hon. Prof. of Oncology & Chmn.; Plng. & Devpt., Tata Memorial Hosp.; Head, Deptt. of Oncology, Jaslok & Breach Candy Hospitals, Bombay; Hon. Founder Secy. & Mg. Trustee, Indian Cancer Socy.; established Chemotherapy & Cancer Cytology Units, 1960; Social Rehabilitation Services & Workshop for indigent cancer patients, 1961; Population-based Cancer Registry, Bombay, 1963; Aurangabad & Pune, 1973; Fellow, American Coll. of Surgeons, 1962; Fellow, Academy of Medical Sciences, India, 1966; Fellow, Royal Socy. of Medicine, London; Addn. of Surgeris of India; Fellow of the Indian National Science Academy; Mem., WHO Expert Cttee. on Cancer; Pres., "SOCLEEN", Bombay; Vice-Chmn., Asian Fedn. of Cancer Socs.; Mem., American Socy. for Preventive Oncology; Founder-Socy., Intnl. Assn. of Cancer Registries; Corresponding Fellow, Assn. of Surgeons of Gr. Britain & Ireland; awarded Padma Bhushan, 1975. *Address:* Tata Memorial Centre, Dr. E. Borges Marg, Parel, Bombay 400012.

KALYANI, Dr. Neelkanth A., Industrialist. *b.* Aug. 20, 1928. Promoter and Mg. Dir., Bharat Forge Co. Ltd.; Dir., Kirloskar Engg. Ltd., Kirloskar Pneumatic Co. Ltd., Ugar Sugar Works Ltd., Premier Construction Co. Ltd., Deepak Fertilizers & Petrochemicals Corpn. Ltd., Automotive Axles Ltd., Kalyani Brakes Ltd., Alkyl Amines Co. Ltd.; Vice-Pres.: Automotive Res. Assn. of India; Ex-Chmn., Maharashtra State Co-op. Land Devpt. Bank Ltd., State Indl. & Inv. Corpn. of Maharashtra Ltd., Maharashtra Electrosmelt Ltd.; Mem., State Bank of India (Local Bd.), A.I.M.O.; Ex-Mem., M.S.E.B.; former Dir., Rural Electrification Corpn. Ltd.; was conferred Hony. Degree of Doctor of Sci. by the Karnataka Univ. in recognition of yeoman service to agri. & ind., Mar. 29, 1976. *Address:* Bharat Forge Co. Ltd., Mundhwa, Pune 411036.

KANORIA, Shyam Sunder, Mg. Dir., Kanoria Chemicals & Ind. Ltd. *b.* Jan. 28, 1928. Dir.: U.P. State Indl Devpt. Corpn. Ltd., Pradeshiya Indl. and Inv. Corpn. of U.P. Ltd., Ratnakar Shipping Co. Ltd., India Jute Co. Ltd., Naihati Jute Mills Co. Ltd., Hindustan Sanitaryware & Inds. Ltd., Indian Aluminium Cables Ltd., Amines & Plasticizers Ltd., Aditya Chemicals Ltd., Vam Organic Chemicals Ltd., etc.; Ex-Pres.: F.I.C.C. & I., N. Delhi; Indian Chamber of Commerce, Calcutta; Indian Sugar Mills Assn.; Indian Council of Arbitration, alkali Mfgrs. Assn., Bombay; Pres.: Govng. Body of Econ. & Sci. Res. Foundn., New Delhi; Vice-Pres.: Ind. Nat. Cttee. of Intnl. Chamber of Commerce etc.; visited several countries as member and leader of indl. and trade delegations. *Address: Off.:* 16A, Brabourne Rd., Calcutta 700001; *Res.* 23C, Ashutosh Chowdhury Ave., Calcutta 700019.

KAPOOR, Ranbir Raj, Producer. Dir., Actor and Editor. *b.* Dec. 14, 1924. Mem.: Jury on Intnl. Film Festivals, Berlin, Karlovy

Vary, Moscow, 1966-69; Chmn. of the Jury, 4th Intnl. Film Festival, New Delhi, Dec. 1960; won the Grand Prix at the Intnl. Film Festival. Karlovy Vary, Czechoslovakia, for his film *Jagte Raho*, 1958. *Address:* Devnar Cottage, Devnar Farm, Trombay Rd., Chembur, Bombay 400071.

KAPOOR, Shashi, Producer & Film Actor. *b.* Mar. 18, 1938. Worked with the Prithvi Theatres and Shakespeareana Theatrical Co., 1955-60; joined films, 1960; first film *Char Diwari;* has acted in seven intnl. films; became film producer with *Junoon* winner of National Award, 1978. *Address:* 112, Atlas Apartments, Harkness Rd., Bombay 400006.

KARANJIA, Russy K., B.A. (Hons.), Publisher & Journalist. Editor-in-Chief, *Blitz News Magazine & The Daily*. *b.* Sept. 15, 1912. Started *Blitz* in Feb. 1941; Editor & Dir., *Blitz* Publications. *Address:* Framroz Court, N. Subhas Rd., Bombay 400020.

KASTURI, G., B.A. (Hons.), Editor, *The Hindu*. *b.* Dec. 17, 1924. *Address:* Kasturi Bldgs., Mount Rd., Madras 600002.

KAULA, Prithvi Nath, M.A. (Pb.), B.Lib. Sci. (Delhi), Dip. L.Sc. (B.H.U.). Prof. and Head of the Deptt. of Library Sci., Dean, Faculty of Arts, Banaras Hindu Univ., 1979-81; Editor, *Intnl. Inf. & Communication*, since 1982; *Progress in Lib. and Inf. Science*, since 1980; *Granthalaya Vijnana*, since 1971; Rapporteur, UNESCO Intl. Bibliographical Survey, 1949-51; Expert Mem., UNESCO Advy. Cttee., Comparability & Higher Educ. Studies in Library Sci., since 1973; Chmn.; Nat. Council of Indian Library Assns., since 1974; Pres., Fedn. of Indian Library Assn., since 1975. *b.* Mar. 13, 1924. Mg. Editor, *Abgila* (I.L.A.), 1950-53; Editor, *Sharda*, 1952-55; Founder-Gen. Secy., Delhi Library Assn., 1953-55, 1958-60, and its Vice-Pres., 1956-58; Founder Editor, *Herald of Library Sci.*, since 1962; Dir., All India Seminar on Edn. for Librarianship, 1965; Dir., UNESCO Library Trg. Programme, Havana, 1967; Visiting Prof., American Library Schools, 1968; UNESCO Expert, UNESCO Regional Centre in Western Hemisphere, 1967-68; Chmn., Council of Literacy & Adult Edn., since 1969; Hebru Univ., Jerusalem, 1971; Founder Gen. Secy., Indian Assn. of Teachers of Library Sci., 1968-73; its Pres., since 1973; delivered lectures in GDR, Hungary, USSR, Yugoslavia, Cuba, France, Mexico, Spain, U.K., since 1974; Indian Library Movement Award; "Pro Mundi Beneficio" Medal and Diploma by Brazilian Academy of Humanities, 1975; Mem.: U.G.C. Review Cttee. on Lib. Sci., 1961-63; Govng. Council Nat. Lib. of India, 1966-69; Specialist Panel for Lib. Sci., U.G.C., 1976, 1982; Mem.: State Library Commn., Andhra Govt., 1975-80; U.P. Govt. since 1981; Raja Ram Mohan Roy Foundation since 1981; Panel Mem., World Congress of Librarians, Brussels, 1977; Chmn.: Regional Working Group on Lib. Sci. Edn. in Asia since 1977, Lib. Sci. Edn. Cong. of S.E. Asian Librarians, Bangkok, 1978; Deutsche Bucherei Medal of G. D.R., 1981; is author of 47 books, 43 bibliographies, 4,000 technical notes and over 600 papers etc. *Address:* C1, Banaras Hindu Univ., Varanasi 221005.

KERKAR, Ajit Baburao, Hotelier and Industrialist. *b.* June 12, 1932. Mg. Dir.: Indian Hotels Company Ltd.; Dir.: Tata Inds. Ltd., Oriental Hotels Ltd., Indian Resort Hotel Ltd., Banares Hotel Ltd., Maharashtra Tourism Devpt. Corpn. Ltd., Taj Investment and Finance Co. Ltd., Taj Trade and Transport Co. Ltd.; Mem.: Exec. Cttee., Fedn. of Hotel & Restaurant Assns. of India; Pres.: Hotels & Restaurant Assns. (W. India); Bd. of Governors, Instt. of Catering Tech. & Applied Nutrition, Bombay; Cttee. Mem., Indian Merchants' Chamber; Exec. Cttee. Mem., Pacific Area Travel Assn. (India) Chapter; Mem.: Adv. Cttee. (Hotels), Industrial Fin. Corpn. of India, Tourism Devpt. Council, Regional Tourist Cttee. (W. India); Mem. Tourism Devpt. Council, Regl. Tourist Cttee. *Address:* Indian Hotels Company Limited, Mandlik House, Mandlik Rd., Apollo Bunder, Bombay 400039.

KHAITAN, Matadin, Businessman. *b.* May 1913. Life-member, Indian Red Cross Socy.; Cttee. Mem.: Indian Sugar Mills Assn. Dir.: Matadin Khaitan & Co. Pvt. Ltd., Tulsipur Sugar Co. Ltd.; Trustee: Matadin Khaitan Charitable Trust; Gyan Bharati, etc. *Address:* Khaitan House, 27, Vivekanand Rd., Calcutta 700007.

KHALID, V., B.Sc., B.L., Chief Justice, Jammu & Kashmir High Court, since Aug. 24, 1983. *b.* July 1, 1922. Started practice at Cannanore, Tellicherry; set up practice in Kerala High Court, since 1964; elevated to the Bench, Apr. 3, 1972. *Address:* High Court, Srinagar 180001.

KHAN, Ustad Bismillah, Padma Shri (1961), Padma Bhushan (1968), Padma Vibhushan (1980), Musician. *b.* March 21, 1916 at Dumraon, Shahabad Dist., Bihar. Gave his first public performance at the age of 14 at the All India Music Cfce. at Allahabad, 1930; Academy Award for Hindustani Instrumental Music, 1956; participated in the Edinburgh Intnl. and the Commonwealth Arts Festival, London & Liverpool, 1965; gave musical concerts at the Expo 1967 at Montreal, Canada, including the Lincoln Centre, New York, U.S.S.R., and all the countries of the Middle East, 1967; participated: Intnl. Music Council, Cannes, Jan. 1970; Expo 1970 in Japan; gave musical concerts in South America, West Indies, Guyana, Venezuela, Surinam, Trinidad & Tobago, Mexico, Syria, Belgium, France etc. during 1972, 1973 and 1974; took part in Intnl. Music Council programme in West Berlin in March, 1977; awarded Tansen Award (1980), by the Madhya Pradesh Govt. *Address* C.K. 46/62, Sarai Harhar, Banaras.

KHANNA, Kumud Chandra, LL.B., Resident Editor, *The Times of India*, since July 1983. *b.* Dec. 5, 1926. Joined *The Times of India*, 1946; Spl. Corspdt., New Delhi, 1947; Corspdt., Burma, 1953; Egypt. 1954; Spl. Corspdt., New Delhi, 1955-58; covered Middle East and Congo, 1958-63; London Corspdt., 1964-67; Sr. Asstt. Editor, 1968 to April 4, 1978; Res. Editor, *The Times of India*, Bombay 1978 to Sept. 7, 1981; Editor, *The Illustrated Weekly of India*, Sept. 1981 to July 1983. *Address:* Flat No. 1, Bakhtawar, Narayan Dabholkar Rd., Bombay 400006.

KHORANA, Dr. Harvogind, drew world attention for his remarkable bio-medical success in gene synthesis. *b.* Raipur, Jan. 9, 1922; B.S., Punjab Univ., 1943; M.S. 1945; Ph.D., Liverpool (Engl.) Univ. 1948; D.Sc., Chicago Univ., 1967. Head, Organic Group of B.C. Research Council, 1952-60; Vis. Prof. Rockefeller Inst., 1958; Prof. co-dir., Inst., Enzyme Research, Wisconsin Univ., Madison 1960-70; Prof., Dept., biochemistry, 1962-70, etc. Recipient Merck award Chem. Inst. Can., 1958; Gold medal Profl. Inst., of Pub. Service Can., 1960; Dannie-Heinneman Preiz., Gottingen, Germany 1967, Lasker Found. award for basic med. research, 1968, Nobel Prize in medicine, 1968; Mem. editorial board Journal of American Chemical Society, 1963, *Address: Off:* Dept. Biology and Chemistry, Mass. Inst. Tech., Cambridge MA 02139.

KHOSLA, K. G., B.Sc., Industrialist; Chmn. & Mg. Dir., K. G. Khosla Compressors Ltd., New Delhi; Dir. of several other Public Limited companies; also controls Khosla Foundry Ltd., Khosla Indair Ltd.; Khosla Diesels Ltd., and Prashant Khosla Pneumatics Ltd.; Dir., Bd. of Indl. Credit & Inv. Corpn. of India; Hon. Gen. Secy., A.I.M.O. (Delhi), 1946-57; Vice-Pres., 1957-58, 1958-59; Sr. Vice-Pres., 1977-78; Pres., 1978-79; Pres., Engg. Assn. of India, 1974-75; Assn. of Indian Engg. Ind., 1975-76; Pres., Punjab, Haryana & Delhi Chamber of Comm. & Ind., 1980-81; Dy. Pres., Assoc. Chamber of Comm. & Ind., 1980-81; Chmn.: Cttee. on Ind. and Rural Devpt., 1982-83; travelled abroad as leader of comml. and indl. teams of EEPC and AIEI and on business. *Address:* 11, Prithvi Raj Rd., New Delhi 110011.

KHURANA, Sundar Lal, M.A. (His.), Governor of Tamil Nadu, since Sept. 3, 1982; Nat. Pres., Instt. of Mktg. Mgmt.; Vice-Pres., Ind. Instt. of Public Admn. *b.* Feb. 28, 1919. Joined I.A.S., Oct. 1949 and worked in various capacities till July 1971; Chief Secy. to the Govt. of Rajasthan and concurrently Secy., Planning, Manpower & Evaluation Deptt.; Secy., Tourism & Chmn., Mines & Minerals Corpn., Rajasthan, Aug. 1971-May 1975; Secy., Min. of Home Affairs & concurrently Secy., Justice Deptt., Govt. of India, June 1975-March 1977; Chmn., Rajasthan Agro-Inds. Corpn., April 1977-Nov.1977; Exec. Pres., Hindustan Times Group of Pubns., Dec. 1979-Feb. 1980; June 1980-March 1981; Adviser to the Governor of Rajasthan, March 1980- June 1980; Lt. Governor of Delhi, March 1981-Sept. 1, 1982. *Address:* Raj Bhavan, Madras 600022.

KHUSRO, Dr. Ali Mohammed, B.A. (Hons.), Ph.D. (Leeds), LL.D. (Leeds). Eminent specialist in monetary & agricultural economy and Mem., Planning Commission, Govt. of India. *b.* May 1, 1925. Lecturer, Osmania Univ., 1952-54; Dir. of Socio-Economic Research, 1954-57; Prof. of Economics, Delhi Univ., 1957-70; Dir., Instt. of Economic Growth, Delhi Univ., 1970-74; Amb. to Federal Republic of Germany, 1980. *Address:* Planning Commission, Yojana Bhavan, Parliament St., New Delhi 110001.

KIDWAI, Dr. Akhlaq-ur-Rahman, B.A. (Jamia), M.S. (Illinois), Ph.D. (Cornell), Governor of Bihar, since Sept. 20, 1979. Ex-Chmn., Union Public Service Commn., Govt. of India (1967-69). *b.* July 1, 1920. Fellow, Chemical Socy., London; Indian Chemical Socy.; Prof. & Head, Chemistry Dept. and Dean, Faculty of Sci., Aligarh Univ., 1951-67; Mem: National Cttee. on Sci. & Tech., 1968-73; Central Adv. Bd. of Educ., and U.P.S.C., Sept. 1967-Feb. 1973; American Chemical Socy.; Chmn., Spl. Bd. for the Selection of Scientists (Scientists' pool); Chmn., Assessment Bd. of Edunl. & Tech. Qualification; was Mem., U.G.C., Council of Sci. & Ind. Res., Govng. Body, Ind. Council of Agri. Res., American Chemical Socy. and American Assn. for the Advancement of Sci. etc.; author of many res. papers on Organic Chemistry and Bio-Chemistry. *Address:* Raj Bhavan, Patna 800022.

KILACHAND, Ambalal, Vice-Chairman, Polychem Ltd. *b.* July 23, 1912. Dir., Kilachand Devchand & Co. Pvt. Ltd., Kesar Sugar Works Ltd., Bombay Suburban Electric Supply Ltd., Citric India Ltd., Eastern Bunkerers Ltd. etc.; Rotary Dist. Governor, 1976-77 of R.I. Dist. 314; former Trustee, B.P.T.; Founder Mem. and Mem. Exec. Cttee., Indo-American Chamber of Commerce; Mem.: Bombay Customs Adv. Cttee.; Pres., Indian Merchants' Chamber, 1953-54; Mem., Import Adv. Council, Govt. of India till 1956; Pres.: All India Plastic Mfgrs. Assn., 1963 and 1964; Rotary Club of Bombay, 1965-66. *Address: Office:* 7, Jamshedji Tata Rd., Churchgate Reclamation, Bombay 400020.; *Res.:* 95, Laxmibai Jagmohandas Marg, Bombay 400006.

KILACHAND, Ramdas, Businessman. *b.* Sept. 18, 1909. Joined Kilachand Devchand & Co. Pvt. Ltd., 1926; Pres.: Bombay Oilseeds & Oils Exchange Ltd., North Gujarat Educ. Socy.; Chmn.: Polychem Ltd., Kilachand Devchand & Co. Pvt. Ltd.; Dir.: Kesar Sugar Works, Ltd.; Synthetics & Chemicals Ltd., etc.; Former Pres.: East India Cotton Assn. Ltd.; Ex-Trustee, Bombay Port Trust; Pres., Indian Merchants' Chamber, 1948-49; Mem.: Indian Oilseeds Devpt. Council; Export Promotion Council for Oilseeds, Oils, Oilcakes; Chmn.: Adv. Cttee., K. D. Polytechnic, Patan; Trustee: Kilachand Devchand Foundation; Kilachand Devchand Charity Trust; Kesarbai Charity Trust, Bombay Panjrapole, etc.; elected M.L.A., Bombay. 1952. *Address: Office:* 7, Jamshedji Tata Rd., Churchgate Reclamation, Bombay 400020; *Res.:* 95, Laxmibai Jagmohandas Marg, Bombay 400006.

KIRLOSKAR, Shantanu Laxman, B.Sc., "Sir Walter Puckey Prize" (1968), awarded Karma Virottama' by Engg. Assn. of India, Calcutta (1972), 'Vanijya Ratna' (1976), Karnataka Chamber of Comm., Bombay; National Insttn. of Quality Assurance award for 1976-77, Madras; Life Mem., Instt. of Engineers (India), Industrialist; Chmn. and Mg. Dir., Kirloskar Oil Engines Ltd., Pune. *b.* May 28, 1903. Pres., F.I.C.C. & I., 1965-66; First Pres., Indo-American Chamber of Commerce; Chmn.: Bd. of Dirs., Kirloskar Pneumatic Ltd., Pune; Kirloskar Consultants Ltd., Pune; Kirloskar Cummins Ltd., Pune; Kirloskar Bros. Ltd.; Chmn., Indian Instt. of Management, Ahmedabad, 1972-74; Maharatta Chamber of Commerce, Pune; Dir.: Reserve Bank of India; Dir. of several other Companies. *Address: Office:* Kirloskar Oil Engines Ltd., Corporate Office, 11, Koregaon Rd., Pune 411001. *Residence:* "Lakaki", Shivajinagar, Pune 411016.

KOHLI, F. C., B.A., B.Sc. (Hons.), B.Sc. (Hons.), Elec. Engg. (Queen's Univ., Canada), S.M., Elec. Engg. (MIT, USA). Dir.: Tata Inds., Tata Hydro Elec. Power Supply Co., Tata Burroughs, J. R. Kraft Board Pvt. Ltd., Bradma of India Ltd. *b.* Feb. 28, 1924. Worked with Canadian Gen. Elec. Co. and New England Power System; Tata Elec. Cos., 1951-69: responsible for introducing computer-aided power systems design and advanced analytical techniques and consultant in computer-aided process control system and extra high voltage networks; Gen. Manager, Tata Consultancy Services and later as Dir.-in-Charge; Ex-Dir., Insttn. of Elec. & Electronics Engrs. Inc., New York; Ex-Pres., Computer Socy. of India; Fellow, IEEE (New York); Computer Socy. of India; Insttn. of Electl. Engrs., Lond.; Insttn. of Engrs., India. *Address:* Tata Consultancy Services, Air India Bldg., Nariman Point, Bombay 400021.

KOTHARI, Dayanand Chandulal, M.A. (Madras), Industrialist, Share & Stockbroker; Hony. Consul-Gen. for France in Madras. *b.* Feb. 28, 1914. Chmn. & Mg. Dir.: Kothari (Madras) Ltd.; Vice Chmn.: Kothari Sugars & Chemicals Ltd., etc.; Chmn.: Kunal Engg. Co. Ltd., SRC of Indo-German Chamber of Commerce etc.; Dir.: Brooke Bond (I) Ltd.; Indian Oxygen Ltd.; Vijayanagar Textiles Ltd.; Kothari (Madras) Intnl. Ltd.; Shriram Bearings Ltd.; English Electric Co. of India Ltd.; Tamil Nadu Indl. Investment Corpn. Ltd.; Tata Oil Mills Co. Ltd.; Vice-pres.: Alkali Mfrs. Assn. of India; Pres.: Indo-Korean Society, Madras; was Dir., Central Board, Reserve Bank of India, etc.; Pres.: Intnl. Orgn. for Standardisation; Mem.. Adv. Council on Trade, Govt. of India; Nat. Savings Cttee.: Court of Governors, Admn.ive Staff Coll. of India etc.; was Chmn.: Southern India Mill Owners' Assn., S. Indian Sugar Mills Assn., Yarn Cttee. of Cotton Textiles Export Promotion Council; was Pres.: All India Orgn. of Employers; Hindustan Chamber of Commerce etc. *Address: Office:* 'Kothari' Buildings, 114/117, Nungambakkam High Rd., Madras 600034. *Res.:* Kothari House, 29, Kothari Rd., Nungambakkam, Madras 600034.

KOTHARI, Harshad Chandulal, Industrialist; Share & Stock Exchange Broker. *b.* April 18, 1918. Chmn. & Mg. Dir., Kothari Sugar and Chemicals Ltd.; Chmn.: Investment Trust of India Ltd., Madras Safe Deposit Ltd., Kothari Electronics and Industries; Pres.: Madras Exchange Brokers Assn.; Vice Chmn.: Kothari Consultant and Engrs. Ltd.; S. I. Sugar Mills' Assn., Madras and Bangalore; Dir.: Amrutanjan Ltd., Coonoor Tea Estates Co. Ltd.; Madras Aluminium Co. Ltd., W. S. Insulators of India Ltd.; Sheriff of Madras (1964); was Chmn., Hindustan Photo Films Mfg. Co. Ltd.; Cttee. Mem.: Indian Sugar Mills' Assn.; Chmn.: S. Indian Sugar Mills'Assn., Hon. Consul-Gen. for Austria in S. India. *Address:* Kothari Bldg., 145, N. H. Rd., Nungambakkam, Madras 600034.

KOTHARI, Swatantra Singh, Chartered Accountant and Ex-M.P. (Lok Sabha). *b.* 1930. Dir.: Auckland Jute Ltd., North Bihar Paper Ltd., Pratappur Sugar Mills Ltd., Kothari Mgmt. & Indl. Conslts. Ltd., etc.; Mem.: Lok Sabha, 1967-70; Pub. Undertakings Cttee., 1967-69; Nat. Central Savings Adv. Bd., 1968-69; Calcutta Productivity Council, 1974-75; Bd. of Governors, Instt. of S.W. & Bus. Mgmt., 1980-83; Central Council, Instt. of Chartered Accountants of India. 1964-67;Vice-Chmn., Taxation Cttee., Fedn. of Indian Chambers of Commerce & Ind., 1975-76; Banking & Finance Cttee., Indian Chamber of Commerce, 1973-75; Mem., Mg. Cttee.; Exec. Pres., Centre for Econ. and Social Studies; Fellow, British Instt. of Mgmt., Royal Economic Socy. (U.K.); Pub. Rep. on Cttee., Cal. Stock Exchange. *Address:* India Steamship House, 21, Old Court House St., Calcutta 700001.

KULKARNI, S. R., Pres.: All-India Port & Dock Workers' Fedn. *b.* March 25, 1928. Has been connected with the dockers' movement for the last 32 years; is associated with a number of other trade union orgns.; Trustee, Bombay Port Trust, since 1958; Gen. Secy., Hind Mazdoor Sabha since April 1981. *Address:* Block No. 58, Chanchal Smriti, Katrak Rd., Wadala, Bombay 400031.

KURIEN, Verghese, B.Sc., B.E. (Hons.) (Mech.), M.Sc (Mech. Engg.), F.I.E. (India), D.Sc., LL.D., Chmn.: Nat. Dairy Devpt. Bd., Anand; Ind. Dairy Corpn., Vadodara; Instt. of Rural Mgmt., Anand; Tribhuvandas Foundation, Anand; Chmn. & Mg. Dir., Gujarat Co-op. Milk Mktg. Fedn. Ltd., Anand. *b.* Nov. 26, 1921. Dir.: Gujarat Dairy Devpt. Corpn.; Kaira Dist. Co-op. Milk Producers' Union Ltd.; Mem., Instt. of Co-op. Mgmt., Ahmedabad; Exec. Cttee. of Intnl. Dairy Foundation, Brussels; was Chmn., XIX Intnl. Dairy Cong., 1974; Guj. State Co-op. Cotton Mktg. Fedn., was Mem.: Bd. of Governors, Ind. Instt. of Mgmt.; Fellow, Instt. of Engrs. (India); Life Mem., Assn. of Food Technologists (India); awarded Ramon Magsaysay Award for Community Leadership, '63; Hony. Degree of D.Sc. (Michigan State Univ.), '65; Padma Shree, '65; Padma Bhusan, '66; Hon. Degree of Doctor of Laws by Glasgow Univ., '74; awarded NIF Escorts Man of the Year, 1975; Business Leadership Award—Madras Mgmt. Assn., Madras, 1978; Vishwa Gujari Award, 1980. *Address:* National Dairy Devpt. Board, Anand 388001.

KUSHE, Madhusudan Dattaram, Mg. Dir., P.V.S. Beedies P. Ltd., Mangalore. *b.* Nov. 16, 1935. Exec. Dir., P.V.S. Printers and Publishers Pvt. Ltd., P.V.S. Exports Pvt. Ltd.; Pres., All India Beedi Ind. Fedn., Karnataka Beedi Ind. Assn, South Kanara Amateur Athletics Assn., Karnataka State Vishwa Hindu Parishad; Mem.: Minimum Wages Adv. Bd., Govt. of Karnataka, Central Excise, Regional Adv. Cttee., State Level Adv. Cttee. under Beedi Workers' Welfare Act, 1976; Exec. Mem., Compact Standing Tripartite Cttee., Min. of Labour, Govt. of India, Indo American Chamber of Comm., Indo-Japanese Assn., Mangalore Port Trust Board; office-bearer of many cultl., ednl., religious & comml. orgns. *Address:* P. Box No. 707, Mangalore 575003.

LALBHAI, Arvind N., B.Sc. (Bombay Univ.), Industrialist; Chmn.: Asoka Mills Ltd., Digvijay Woollen Mills Ltd., Suessen Bearings, Lalbhai Exports Ltd., Anil Starch Products Ltd., Anup Engg. Ltd., I.C.M.F., Bombay; Chmn. & Mg. Dir.: Arvind Mills Ltd., Ahmedabad. *b.* April 3, 1918. Dir., SLM. Maneklal, Kothari (Madras) Ltd.; Ex-Dir., SBI; Pres., Ahmedabad Millowners' Assn., 1957-58, 1961-62 and 1976-77; Gujarat Chamber of Comm., 1969-70; F.I.C.C. & I., 1981-82; Mem.: Indian Nat. Cttee. of Intnl. Chamber of Comm.; Mg. Cttee. of F.I.C.C. & I., New Delhi. *Address:* "Shalimar", Shahibaug, Ahmedabad 380004.

LALCHAND HIRACHAND, B.A., Industrialist; Chmn.: Walchandnagar Ind. Ltd.; Premier Construction Co. Ltd.; Hindustan Construction Co. Ltd.; Dir., Scindia Steam Nav. Co. Ltd., and Indian Hume Pipe Co. Ltd. *b.* Oct. 24, 1904. Pres.: Indian Merchants' Chamber, 1959; Mah. Chamber of Comm., 1960-64; Automotive Mfgrs.' Assn. of India, 1955-58; Assn. of Indian Automobile Mfgrs., 1960-61; Mem.: Bombay Leg. Council, 1939; Rajya Sabha, 1952-58; was Mem.: Import Adv. Council of the Govt. of India; Pres., Swatantra Party, Bombay Region, 1968-71. *Address: Office:* Construction House, Walchand Hirachand Marg, Ballard Estate, Bombay 400038.; *Res.:* Neela House, M. L. Dahanukar Marg, Bombay 400026.

LATIF, Idris Hasan, Governor of Maharashtra. *b.* June 9, 1923. Graduate of Defence Service Staff Coll. and Natl. Defence Coll.; Param Vishisht Seva Medal (1971); commissioned into the Air Force, 1942; Air Attache, Washington, 1961-65; Later Air Defence Commander & Sr. Air Staff Officer, Eastern Air Command; Asstt. Chief of Air Staff (Plans) during 1971 operations; Air Officer-in-Charge, Admn., in the rank of Air Marshal; Air Officer Commanding-in-Chief, Central Air Command and Maintenance Command; Vice Chief of Air Staff, May 1977; Chief of Air Staff, Sept. 1978. *Address:* Raj Bhavan, Malabar Hill, Bombay 400035.

LAXMAN, Rasi Puram Krishnaswamy, internationally acclaimed political cartoonist associated with *the Times of India* since 1949. *b.* Nov. 24, 1924. B.A. (Pol., Eco. & Philos.) (Mysore Univ.) Winner of Magsaysay Award and NOPEX Trophy, both in 1984 and Karnataka State award, 1983. Awarded D. Litt. by Marathwada Univ. in 1979. Received Durga Ratan Award in 1974; Padma Bhushan, 1971; B. G. Harniman Best Journalist award in 1969. First Indian cartoonist to be included in intl. exhibition of cartoons held in London in 1958. Has drawn over 9,000 political and 7,000 socio-political cartoons under the popular title "You Said It." Author of books "Doodles", "Sorry, No Room", etc. and short stories and travelogues. *Address:* Anand Vihar, Warden Road, Bombay 400026.

MADON, Mr. Justice Dinshah Pirosha, B.A. (Hons.), LL.B., Judge, Supreme Court of India. *b.* April 7, 1921. Enrolled as Advocate on the Appellate Side, Bombay High Court, Nov. 21, 1944; Original Side, Nov. 2, 1945; Supreme Court of India, May 31, 1952; Part time Prof. of Law, Govt. Law Coll., Bombay, 1952-55; also appeared in other courts in India including the Supreme Court of India and in foreign courts, viz., Court of Appeals for East Africa & the Crown Colonies at Nairobi and the Supreme Court of Aden; elevated to the Bench, Bombay High Court, Sept. 25, 1967; Permanent Judge, Aug. 6, 1968; apptd. one-man Commn. of Inquiry into communal disturbances in Bhiwandi, Maharashtra State, May 1970; Ag. Chief Justice, Bombay High Court, Aug. 11, 1982; Chief Justice, Aug. 31, 1982. *Address:* Supreme Court of India, Tilak Mrg., New Delhi 110001.

MAFATLAL, Arvind Navinchandra, Industrialist; Chmn.: Mafatlal Industries Ltd., Mafatlal Engg. Industries Ltd.,; Polyolefins Inds. Ltd.; Natl. Machinery Mfrs. Ltd.; Prayag-Chitrakoot Krishi Evam Godhan Vikas Nigam Ltd., Lucknow etc. *b.* Oct. 27, 1923, Dir.: Tata Engg. & Locomotive Co. Ltd., etc. *Address:* Mafatlal House, Backbay Reclamation, Bombay 400020.

MAFATLAL, Rasesh Navinchandra, B.A. (Hons.), Industrialist; Chmn. & Mg. Dir., Standard Mills Co. Ltd. *b.* March 6, 1934. Dir.: Mafatlal Inds. Ltd., Indian Dyestuff Inds. Ltd., Mihir Textiles Ltd., Mysore Plywoods Ltd., Shri Ambuja Petrochemicals Ltd., ICICI Ltd., Natl. Organic Chemical Ind. Ltd., Hoechst Dyes & Chemicals Ltd., Automobile Products of India Ltd., Hindustan Motors Ltd., Indian Hotels Co. Ltd., SLM-Maneklal Inds. Ltd., Rexroth Maneklal Ltd., Mafatlal Ltd., Poynton, U.K., Mafatlal AG, Zurich, Switzerland, Milee Corpn. Pty. Ltd., Singapore etc.; Chmn.: Cotton Textiles Export Promotion Council, Ahmedabad Educ. Soc.; Cttee. Mem., Indian Merchants' Chamber, Assoc. Chambers of Comm. and Ind. of India. *Address:* Mafatlal House, Backbay Reclamation, Bombay 400020.

MAHESHWARI, Satish, B.Sc. (Hons.), M.Sc., Ph.D., Scientist and Prof. of Botany, Univ. of Delhi, since 1967. *b.* Oct. 4, 1933. Lecturer in Botany, Delhi Univ., 1954-61; Reader, 1961-66; Smith-Mundt-Fulbright Fellow for Post Doctoral Res., Yale Univ., 1959-60; Post Doctoral Res. Fellow, California Instt. of Tech., 1960-61; Commonwealth Exch. Programme, Oxford Univ., 1966-67; Homi Bhabha Fellow (1973-74), Harvard Univ.; Fellow, Indian Acad. of Sci. and Natl. Acad. of Sci.; awarded Bhatnagar Prize, 1975, Jawaharlal Nehru Fellowship, 1980-81. *Address:* Deptt. of Botany, Delhi Univ., Delhi 110007.

MAHINDRA, Harish, B.Sc. (Pol. Science) (Harvard Univ.), M.A. (Fletcher School of Law & Diplomacy), Chmn. and Mg. Dir., Mahindra Ugine Steel Co. Ltd. *b.* March 19, 1923. Chmn.: Maharashtra Electronics Corpn. Ltd., Welcats Steels Ltd., Meltron Semi-conductors Ltd., Ceekay Automotive Products Ltd., Indian & Eastern Engineer Co. Ltd.; Dir.: Mahindra & Mahindra Ltd., Standard Mills Co. Ltd., Gramophone Co. of India Ltd., Sadvik Asia Ltd., New India Inds. Ltd., Amar Dye-Chem. Ltd., Ceat Tyres of India Ltd., Maharashtra Electro-Smelt Ltd., etc.; Pres.: Indo Korean Socy., Indo-French Chamber of Comm. and Ind.; Chmn., K.C. Mahindra Educ. Trust, Nat. Safety Council, Indian Socy. of Advertisers Ltd., Y.M.C.A., Home for Vagrant Boys, etc.; Past Pres.: FICCI, Indian Merchants' Chamber, Maharashtra Economic Devpt. Council, Council for Fair Business Practices, etc. *Address:* Bakhtawar, Nariman Point, Bombay 400021.

MAHINDRA, Keshub, B.Sc., Chmn.: Mahindra & Mahindra Ltd., Mahindra Spicer Ltd., Union Carbide India Ltd., Indian Aluminium Co. Ltd., Otis Elevator Co. (India) Ltd., Remington Rand of India Ltd., etc. *b.* Oct. 9, 1923. Vice-Chmn., Housing Devpt. Fin. Corpn. Ltd.; Dir.: Tata Chemicals Ltd., Tata Iron & Steel Co. Ltd., Bombay Burmah Trdg. Corpn. Ltd., Bombay Dyg. & Mfg. Co. Ltd., Indian Hotels Co. Ltd., Metal Box Co. of India Ltd., WIMCO Ltd., Kaiser Jeep Intnl. Corpn. and several other companies; was Pres., Bombay Chamber of Comm. & Ind., 1966-67; Assn. of Indian Automobile Mfgrs., 1964-65; Assoc. Chambers of Comm. & Ind. (1969-70); Maharashtra Economic Devpt. Council (1969-70); Vice-Pres., M. Visvesvaraya Indl. Res. & Devpt. Centre; Nat. Socy. for Clean Cities; Vice-Pres. & Trustee, K.C. Mahindra Ednl. Trust; Chmn.: Bd. of Governors Indian Inst. of Mgmt., Ahmedabad. Mem.: All India Bd. of Technical Studies in Mgmt.; Central Adv. Cttee. of the Territorial Army. *Address:* Gateway Bldg., Apollo Bunder, Bombay 400039.

MALKANI, Tara L., Mg. Dir., Advani-Oerlikon. Dir., J. B. Advani & Co., J.B.A. Printing Inks, J.B.A. Mysore, Saturn Engg. etc. *Addres:* Ador House, 6, K. Dubash Marg, Bombay 400023.

MAMMEN MAPPILLAL, K. M., B.Sc., Industrialist; Chmn. & Mg. Dir., M.R.F. Ltd. *b.* Nov. 28, 1922. Trg. in Rubber Technology in U.K. and from major plantations in India & Malaysia as well as industries in U.K., U.S.A., Japan & W. Germany; associated with the M.R.F. Ltd., since its inception in 1946 and several rubber plantation cos. and rubber goods mfg. cos. in Kerala & Mysore; Pres.: Local Bd. of the State Bank of India, Madras; Dir. of Central Bd., State Bank of India, Indo-American Chamber of Comm. (S. Regn.), 1971-72 & Hindustan Chamber of Comm., Madras, 1972-73; Dir., Chemicals and Plastics India Ltd., Kothari Consultants & Engineers Ltd., Crescent Investments Ltd., Madras. *Address:* M.R.F. Ltd., 827, Anna Rd., Madras 600002.

MANDELIA, Durga Prasad, Industrialist & Businessman. *b.* Oct. 12, 1907. Chmn., Kerala Spinners Ltd., Hindustan Everest Tools Ltd., Central India Machinery Mfg. Co. Ltd.; Dir., Zuari Agro Chemicals Ltd.; Spl. Adv., Hindustan Aluminium Corpn. Ltd., Jiyajeerao Cotton Mills ltd., Century Spg. & Mfg. Co. Ltd., Gwalior Rayons, etc.; Pres., M.P. Chamber of Comm. & Ind. and Fedn. of M.P. Chambers of Comm. & Ind. *Address:* Century Bhavan, Dr. A. Besant Rd., Bombay 400025.

MANDELIA, Surya Prakash, B.A. (Econ.), Pol. Sci. & English Literature (Agra Univ.); Pres.: Century Rayon, Century Tyre Cord, Century Chemicals, Cenray Minerals & Chemicals, Jamnagar; Century Cement, Raipur; Maihar Cement, Maihar; Cenray Engg. & Mgmt. Services (All Divns. of Century Spg. & Mfg. Co. Ltd.). *b.* Sept. 16, 1929. Mgmt. Trainee, Gwalior Rayon, 1948-50; Dy. Secy. and Dy. Gen. Manager, Gwalior Rayon, Staple Fibre Divn., Nagda, 1950-54; Finance Manager, Century Rayon, Kalyan, Bombay, 1954-57; Dy. Gen. Manager, 1957-62; Gen. Manager, Century Rayon, Century Tyre Cord and Century Chemicals, 1962-68; Pres., Council of Indl. Safety, etc.; Chmn., Indian Council of Foreign Trade (Indo-Canadian Trade Group), Bombay Mgmt. Assn. (Conceptual Forum); Mem.: All India Mgmt. Assn., Indo-German Chamber of Comm., Birla Instt. of Tech. & Sci., Cement Mfgrs. Assn., Indian Merchants Chamber, Bombay Chamber of Comm. & Ind., All India Telephone Assn. Ltd., etc.; Vice-Pres., Socy. of Goodwill & Cult., Sangeet Kala Sahayak Kendra, etc.; Ex-Pres., Assn. of Man-made Fibre Ind., etc. *Address:* Century Rayon, Industry House, Churchgate Reclamation, Bombay 400020.

MANEKSHAW, Field Marshal Sam Hormuzji Framji Jamshedji, promoted to the rank of Field Marshal, 1973; was Chief of the Army Staff, Indian Army, June 1969-Jan. 1973. *b.* April 3, 1914. Commissioned, Feb. 4, 1934; awarded Military Cross, 1942; Brigade Major, Razmak Brigade in Waziristan, 1943-44; Instructor, Staff Coll., Quetta, 1945-46; General Staff Officer Grade 1, Military Operations Directorate, A.H.Q., 1946-47; promoted Brig., 1947; Dir. of Military Operations, 1948-52; commanded 167 Infantry Brigade, 1952-54; Dir. of Military Trg. until Jan. 1955; Commandant of the Infantry School, 1956-57; Major Gen., 1957; Graduate of the Imperial Defence College, London; Commander, 26 Infantry Divn., J. & K. State, 1957-59; Commandant, Defence Services Staff College, Nilgiris, 1959-62 G.O.C. IV Corps, 1962-63; G.O.C.-in-C., Western Command, 1963-64; Eastern Command, 1964-69; Colonel, 8th Gorkha Rifles; Hon. Gen. of the Nepalese Army; awarded Legion of Merit, U.S.A., 1970; Dir.: Bombay Burmah Trading Corpn., Indian Aluminium Ltd., Escorts Ltd., Malayalam Plantations Ltd., Steelage Inds. Ltd., Goodlass Nerolac Paints Ltd., Air India, North Borneo Timbers, Indian Metals & Ferro Alloys, Criegmore Plantations India Ltd.: decorated with Trishakti-Patta, 1st class by H.M. King of Nepal, 1977. *Address:* C/o National and Grindlays Bank, Bombay & New Delhi: 'Stavica', Coonoor (S.I.) 643101.

MANGALDAS, Madanmohan, B.A. (Bom.), Industrialist and Businessman, Ahmedabad. Vice-Pres. of Intnl. Textile Mfgrs. Fedn., Zurich, 1983. *b.* Oct. 5, 1917. Chmn.: Victoria Mills Ltd.; Pres.: Ahmedabad Millowners' Assn., 1955 and 1958; Ahmedabad Management Assn., 1959; elected M.L.A., Bombay from Ahmedabad, 1951; rep. of employers on E.S.I. Corpn.; Vice-Pres., F.I.C.C. & I., 1971-72; Pres., F.I.C.C. & I., 1972-73; Chmn.: Gujarat Housing Board, 1960-67; Indian Cotton Mills Fedn., Bombay, 1967-69. *Address:* Mangal Bag, Ellis Bridge, Ahmedabad 380006.

MANGLA, Prof. P. B., Prof. of Lib. Inf. Sc., Delhi Univ., since 1972. *b.* July 5, 1936. Chmn., Board of Research Studies (Humanities) since 1979; Dean, Faculty of Arts, Delhi Univ., 1976-78; Prof. & Head, Dept. of Lib. Sc., 1972-79; Reader in Lib. Sc., Delhi Univ., 1966-70; visiting Prof. of Lib. Sc., Tabriz Univ. (Iran), 1970-72 & 1974-75; UNESCO Expert, Guyana (S. America), 1978-79; Chmn., Publication Adv. Cttee., Delhi Univ., since 1980; Mem. of Faculty of Arts in Kurukshetra Univ., Benaras Hindu Univ., Pres., Indian Library Assn.; Chmn., Bd. of Editors, "Journal of Library & Information Sc.", Univ. of Delhi, since 1976; Mem., Editorial Bd., "Annals of Library Sc. & Documentation", Insdoc (CSIR), 1981; Ind. Nat. Commn. for UNESCO; Expert Mem., Selection Cttee. of U.P.S.C. etc. *Address:* 19/4, Cavalry Lines., Delhi Univ. Campus, Delhi 110007.

MARZBAN, Adi Pherozeshah, B.A., Padma Shri (1964), Editor, *Jame Jamshed*, Bombay, since '36. *b.* Apr. 17, 1914. Graduate in Drama & Radio (Pasadena Playhouse, U.S.A.). Producer of English & Gujarati Plays, A.I.R., Bombay, '46; received Intnl. Theatre Instt. Scholarship (UNESCO), '52; Sangeet Natak Akademi Award for best Director, '70; Originator of Bombay T.V.'s game "What's The Good Word?"; Hony. Mem.: Indian Socy. of Magicians. *Address:* Jame Jamshed, Ballard House, Mangalore St., Bombay 400038.

MEHAN, Kewal Krishna, B.Com., M.A., MBIM (Lond.), MIIE (India), AMT (Harvard), CSBMTC (Tokyo), Mg. Dir., Mehan & Associates, Mgmt. Consultants & Trainers, since 1976. *b.* May 11, 1929. Univ. Teaching of Mgmt. 1951-57; Mg. Consultancy & Trg., 1957-71; Sr. Prof. of Mgmt. & Chmn. (Consultancy), NITIE, Bombay, 1971-76; Fellow, Asian Productivity Orgn.; decorated by the Central Japan Instt. of Indl. Mgmt. for notable contribution to productivity movement; has done consultancy assignments for Indian Railways, Ford Foundation, Central & State Govts., etc. *Address:* Mehan & Associates, "The Garib", Fifth North South Rd., Juhu-Vile Parle Scheme, Bombay 400049.

MEHRA, Kamlesh Chander, B.A. (Hons.), Business Executive. *b.* Sept. 20, 1939. Vice-Pres. (Commercial), Tata Iron & Steel Co. Ltd. *Address:* Tata Iron & Steel Co. Ltd., 43, Chowringhee Road, Calcutta 700071; *Res.:* 10, Judges Court Rd., Alipur, Calcutta 700027.

MEHRA, Om Prakash, Air Chief Marshal (Retd.), M. A.; Governor of Rajasthan, since Mar. 6, 1982, Governor of Maharashtra, from Nov. 3, 1980 to Mar. 5, 1982. *b.* Jan. 19, 1919. Joined I.A.F., 1940, and was on active service during World War II; held various field and command appointments in the air force; Chief of the Air Staff, Jan. 1973-Jan. 1976; was Head, Instt. of Armament Technology; Chmn., Hindustan Aeronautics Ltd.; Ex-Pres., Indian Olympic Assn., Asian Games Fedn. and Aeronautical Socy. of India. *Address:* Raj Bhavan, Jaipur 302006.

MEHTA, Fredie Ardeshir, M.A. (Bombay), M.Sc. and Ph.D. (London School of Economics); Business Economist. *b.* July 31, 1928. Master of Science Thesis on "Economic Co-operation Between India and South-East Asia", 1953; Doctoral Thesis on "Terms of Trade as a Factor of Economic Growth", 1955; joined the Tata Admive. Service, 1956; Economic Adv. to Tata Inds., 1966; Dir., Tata Inds. Ltd., Tata Sons Ltd., Burroughs Wellcome & Co. (India) Pvt. Ltd., Tata Oil Mills Co. Ltd., Tata Precision Inds. Pvt. Ltd., Singapore, Bayer (I) Ltd., Rallis India Ltd., Standard Mills Co. Ltd., Indl. Devpt. Bank of India, Bayer (India) Ltd., Siemens India Ltd., Gujarat State Petro-Chemicals Corpn. Ltd., and Assoc. Bearing Co. Ltd.; Vice-Chmn., Ahmedabad Advance Mills Ltd.; in charge of Tata Economic Consultancy Services, Tata Sons Ltd.; Mem.: Govng. Body of the Indian Investment Centre; Chmn. and Mg. Dir., Forbes Forbes Campbell & Co. Ltd.; Chmn.: Investment Corpn. of India Ltd., Gokak Patel Volkart Ltd., I.V.P. Ltd., Ewart Investments Ltd., etc.; Mem.: Indo-German Cham. of Commerce. *Address:* Bombay House, Homi Mody St., Bombay 400023.

MEHTA, Zubin, internationally acclaimed wonder-boy of concerts and only Indian to head the Los Angeles Philharmonic Orchestra since 1962-78. Currently music director of New York Philharmonic Orchestra since 1978. *b.* April 29, 1936 in Bombay. Studied piano, composition, string bass and conducting at the Academy of Music in Vienna. Received Diploma in 1957. Won International Conductors' Competition sponsored by Liverpool Philharmonic Orchestra in 1958. Youngest conductor to lead Vienna Philharmonic and Berlin Philharmonic. Only music director to have been signed for two symphony Orchestras in North America—Los Angeles and Montreal. Awarded Dr. of Law by Sir George William Univ. of Montreal in 1965, Padma Bhushan in 1966, Watumall Foundation Prize in 1967. Conferred the Italian award of Knight Commander of the Order of Merit of the Italian Republic in 1976; Sangeet Natak Akademi Award in 1977. Received Australian State Prize. Honoured as Artist Adviser to Israel Philharmonic Orchestra for 3 years—since 1968 and then its music director for life. Main Actor in his film *A Quest for Zarathustra.*

MENON, Dr. Mambillikalathil Govind Kumar, M.Sc. (Bombay), Ph.D. (Bristol), F.A.Sc., F.N.A., D.Sc., (h.c.), Jodhpur Univ., Delhi Univ., Allahabad Univ., Sardar Patel Univ., Roorkee Univ., Banaras Hindu Univ., Jadavpur Univ., Sri Venkateswara Univ. (Tirupati) and IIT, Madras. S. S. Bhatnagar Award for Physical Scs. (1960), F.R.S.; Khaitan Medal, RAS 1973; Padma Shri (1961); Padma Bhushan (1968); Member, Plng. Comm., Govt. of India; Chmn., Sci. Adv. Cttee. to the Cabinet; Secy., Dept. of Sci. and Tech., Govt. of India, from Oct. 9, 1978 till May 1982; Pres., Indian Intnl. Centre since Jan. 1983. *b.* Aug. 28, 1928. Held Senior Award of the Royal Commn. for the Exhibition of 1851 (1953-55) at the Tata Instt. of Fundamental Res., Bombay—as Reader, 1955-58; Assoc. Prof., 1958-60; Prof., 1960-64; Senior Prof. and Dy. Dir. (Physics), 1964-66; Dir., Tata Instt. of Fundamental Res., Bombay, 1966-75; Chmn., Electronics Commn. and Secy. to Govt. of India, Deptt. of Electronics (Feb. 1971 to Dec. 1978); Scientific Adv. to Minister of Defence; Dir.-Gen., DRDO and Secy. in the Ministry of Defence for Defence Res. (Aug. 1974 to July 1978); Mem.: U.N. Secy.-Genl.'s Advy. Cttee. on Application of Sci. & Tech. to Devpt. (1972-79); Spl. Adv., Intnl. Fedn. of Instts. for Advanced Study, Stockholm; Fellow, Ind. Academy of Scs. (Pres., 1974-76), Indian Nat. Sci. Acad. (Pres., 1981-82); Pres., Indian Sci. Cong. Assn. (1981-82); Hon. Foreign Mem. of USSR Academy of Scs.; Mem., Pontifical Academy of Scs.; Hon. Mem., American Acad. of Arts and Scs.; Hon. Fellow, Instn. of Electronics and Telecommunications Engineers. *Address:* Planning Commn., Yojana Bhavan, Parlt. St., New Delhi 110001.

MENON, Dr. V. K. Narayan, M.A., Ph.D., Padma Bhushan (1969), Chmn., Sangeet Natak Akademi, N. Delhi, since 1st Dec. 1982, was Exec. Dir., National Centre for the performing Arts, Oct. 1968—30 Nov. 1982; Hon. Exec. Dir., Homi Bhabha Fellowships Council. *b.* June 27, 1911. BBC Eastern Services, 1942-47; All India Radio—various positions including Dir. of Calcutta, Madras and Delhi Stations, External Services; Dy. Dir.-Gen. etc., 1948-63; Secy., Sangeet Natak Akademi, 1963-65; Dir.-Gen., A.I.R., 1965-68; Rockefeller Travel Grantee, 1957; Pres., Intnl. Music Council (UNESCO), 1966-68; Trustee, Intnl. Broadcast Instt., 1968-76; Mem.: UNESCO Adv. Panel on Space Communication, 1965-68; Exec. Bd., Sangeet Natak Akademi; Scholar-in-Residence, Aspen Instt. for Humanistic Studies—Summer 1973; re-elected Pres., Intnl. Music Council, 1976. *Address:* Sangeet Natak Akademi, Rabindra Bhavan, 36, Ferozeshah Rd., New Delhi 110001.

MERCHANT, Vijay Madhavji, B.Com. (Bombay), Veteran Cricketer; Chmn. & Mg. Dir., Sirdar Carbonic Gas Co. Ltd.; Pres.; Nat. Assn. for the Blind, NASEOH (Nat. Socy. for Equal Opportunities for the Handicapped), Cricket Club of India Ltd. *b.* Oct. 12, 1911. Joined Thackersey Group, 1932; actively associated with blood donation and donation of eyes; played for India in intnl. cricket, 1933-34; figured in 10 Test matches for India—all against England; retd. from first-class cricket, 1951; average in first-class cricket, 72.23, only next to that of Don Bradman; Sheriff of Bombay, 1969-70. *Address:* Sir Vithaldas Chambers, 16, Bombay Samachar Marg, Bombay 400023.

MISRA, Mr. Justice R. N., M.A., LL.M., Judge, Supreme Court of India since Mar. 15, 1983. *b.* Nov. 26, 1926. Called to the Bar, 1950; worked as Stg. Counsel of Income Tax & Commercial Taxes Deptts. of Orissa; Judge, Orissa High Court, 1969; Chief Justice, Jan. 16, 1981. *Address:* 5, Safdarjang Rd., New Delhi 110001.

MISRA, Justice Ram Briksh, B.A., LL.B., Judge, Supreme Court of India, since Jan. 30 1981. *b.* June 15, 1921; Started practice, 1945; elevated to the Bench, 1968. *Address:* 8, Moti Lal Nehru Marg, New Delhi.

MISRA, Tribeni Sahai, M.A., LL.B., Chief Justice, Gauhati High Court, since Aug. 12, 1983. *b.* Nov. 15, 1922. Started legal practice, 1945; counsel for the Govt. of India and the Govt. of U.P., 1965-71; Addl. Judge, Allahabad High Court, Sept. 3, 1971; Permanent Judge, Dec. 12, 1972; Admve. Judge of the same Court, Aug. 15, 1977—Aug. 15, 1979. *Address:* Gauhati High Court, Gauhati 781001. (Assam).

MITTER, Bhaskar, Businessman; Chmn., Calcutta Electric Supply Corpn. Ltd. *b.* Oct. 11, 1919. Joined Andrew Yule & Co Ltd. & became Mg. Dir.; its Chmn., 1968-72; Dir.: Chloride India

Ltd., Dunlop India Ltd., Union Carbide India Ltd., Alkali & Chemical Corpn. of India Ltd., Bata India Ltd., Indian Oxygen Ltd., Mahindra Ugine Steel Co. Ltd., Graphite India Ltd., Housing Devpt. Fin. Corpn. Ltd., Upper Ganges Sugar Mills Ltd., Metal Box Co. of India Ltd., Tinplate Co. of India Ltd., Tata Robins Fraser Ltd., Assam Co. (India) Ltd., Bhadrachalam Paper Boards Ltd., etc. Pres., Assoc. Chambers of Comm. & Ind. of India, 1971-72; Ex-Pres., Bengal Chamber of Comm. & Ind.; Ex-Chmn., Calcutta Mgmt. Assn. *Address:* 7/1, Queen's Park, Calcutta 700019.

MODI, Kedar Nath, Industrialist; Chairman, Modipon Ltd., Modi Ind. Ltd., Modi Spg. & Wvg. Mills Co. Ltd., Modi Rubber Ltd., Modi Carpets Ltd., Modi Alkalies & Chemicals Ltd., Bombay Tyres Intnl., Gujarmal Modi Hospital and Res. Centre for Medical Sciences. *b.* May 2, 1922. Dir. of Several companies including Govt. undertakings such as U.P. State Ind. Devpt. Corpn. Ltd.; Pradeshiya Ind. Investment Corpn. of U.P. Ltd., etc.; Ex-Chmn., Devpt. Council for Man-made Textiles; All India Mfgrs. Orgn.; Chmn.: Northern India Textile Mills Assn.; All India Orgn. of Employers; Ex-Pres., F.I.C.C. & I.; Mem.: I.C.A.R., U.P. State Plng. Bd., Bd. of Inds. and Mineral Resources (M.P.), etc.; initiated the formation of Northern India Textile Res. Assn. *Address:* Modi Bhawan, Modinagar 201201.

MODI, Suresh Kumar, Businessman. *b.* June 6, 1939. Dir.-in-Charge, Modi Flour Mills, since 1959; Chairman, Patiala Flour Mills Co. Ltd.; Mg. Dir., Modi Ind. Ltd., Modinagar; looks after Modi Gas & Chemicals, Modi Paints & Modi Soap; Mem.: All India Toiletries Mfgrs.' Assn.; Adv. Bd. of Employees State Insc.; Ex-Vice-Pres., A.I.M.O. (N. Regn.); Ex-Chmn., All India Paints Assn. (N. Zone); Ex-Pres.: A.I.M.O., Delhi State Bd.; Lions Club of Delhi United, etc. *Address:* Modi Flour Mills, Okhla Ind. Estate, New Delhi 110020.

MODY, Minoo Hormusji, B.Com., F.C.A. (Eng. & Wales). *b.* June 11, 1932. Joined A. F. Ferguson & Co. and became partner, Nov. 1961; Chief Exec. Officer, Tata Sons Ltd., Nov. 1973; Chmn.: Indian Standard Metal Co. Ltd., Maharashtra Elektrosmelt Ltd.; Dy. Chmn.: Goodlass Nerolac Paints Ltd.; Vice-Chmn.: Tata Services Ltd., Tata Press Ltd., Ewart Investments Ltd., Sandvik Asia Ltd., Dir.: Tata Inds. Ltd., Tata Burroughs Ltd., Forbes Forbes Campbell & Co, Ltd., Tata Aircraft Ltd., Precision Fasteners Ltd., Merck Sharp & Dohme of India Ltd., RDI Print & Publishing Pvt. Ltd., CBS Gramophone Records & Tapes (I) Ltd., Optimum Investments Pvt. Ltd., Assoc. Building Co. Ltd.; Pres.: Bombay Chamber of Comm. & Ind., 1974-75, Assoc. Chambers of Comm. & Ind. of India, 1980-81, Maharashtra Economic Devpt. Council, 1980-82; Vice-Pres., Indo-Australian Socy.; Mem.: HRH The Duke of Edinburgh's Study Cfee., 1974, Indian Nat. Cttee. of Intnl. Cham. of Comm., Council of Mgmt. & Exec. Cttee. of the Forum of Free Enterprise, Faculty of Comm., Bombay Univ.; Trustee, JRD Tata Trust. *Address:* Bombay House, Homi Mody Street, Bombay 400023.

MOOLGAOKAR, Smt. Leela Sumant, Social Worker; Chmn., Central Social Welfare Bd., 1977-80. *b.* October 10, 1916. Chmn.: Tata Relief Cttee., since 1961; Third All-India Cfce. of Indian Socy. of Blood Transfusion & Immunohaematology, 1975; Fedn. of Bombay Blood Banks, 1980; Patron: Indian Socy. of Blood Transfusion & Immunohaematology, 1976; Bombay Haematology Group, 1977; Pres.: Karve Instt. of Social Service, 1976; Sheriff of Bombay, 1975-76; Trustee: Anand Kendra, 1977; Ind. Nat. Socy. for Deaf, 1977; Mem.: Govng. Bd., Tata Blood Bank and Transfusion Service, 1963; Bd. of Mgmt., Acworth Leprosy Hospital, 1977; Gandhi Kushta Punarnivarna Seva Socy., 1977; Sub. cttee. on Rural Devpt. of Fedn. of ICC & I., N. Delhi, 1977; Govng. Council, Children's Aid Socy., 1977; Nat. Cttee. for the Welfare of women, 1978; Haematology Res. Socy., 1979; Govng. Body, Hind Kusht Nivaran Sangh, 1980; Ethical Cttee., Cancer Res. Instt., Tata Memorial Centre, 1981; Ethical Cttee., Acworth Leprosy Hospital 1981; Exec. Cttee., Hind Kusht Nivaran Sangh, 1981; National Leprosy Eradication Commn., 1983; Outstanding Citizen Award by North Bombay Jaycees, 1975; District Citizenship Award by Lions Intnl., 1975; Giants Intnl. Award for Social Work, 1982. *Address:* Mayfair, B. G. Kher Marg, Bombay 400006.

MOOLGAOKAR, Sumant, B.Sc. (Hons.) (Lond.), SEM., Industrialist. *b.* March 5, 1906. Started career with the A.C.C. Ltd., 1930-48; Mg. Dir., TELCO Ltd., 1949; was Chmn.: Engg. Capacity Survey Cttee., Machine Tools Devpt. Cttee.; Mem.: Indian Defence Delegation to Washington, 1963, National Plng. Council, Plng. Commn., Adv. Bd., Coll. of Mily, Engg., Pune; Chmn.: TELCO Ltd.; Dir.: Tata Sons Ltd., A.C.C. Ltd., Cement Agencies Ltd., etc. *Address:* Bombay House, Homi Mody St., Bombay 400023. *Res.:* Mayfair, Little Gibbs Rd., Malabar Hill, Bombay 400006.

MOTHER TERESA, Bojaxhiu, world renowned humanitarian and missionary of charity known for her service to the poorest of the poor. *b.* Aug. 27, 1919 at Skopje, Yugoslavia. Founded Missionaries of Charity on Oct. 7, 1950 to spread love and compassion throughout the world; also Missionary Brothers of Charity on Mar. 25, 1963 with its Hq. at 7, Manasatola Row, Calcutta 700031, the Intnl. Assn. of Co-workers of Mother Teresa. Works of Love include Nirmal Hridoy Homes for sick and dying street cases. Shishu Bhavan Homes for unwanted, crippled and mentally retarded children. Mobile Clinics and Rehabilitation Centres for Leprosy patients, etc. Awarded Bharat Ratna (1980), Nobel Peace Prize (1979), Jawaharlal Nehru Intnl. Award (1972), Ramon Magsaysay Intnl. Award (1962), Fr. Maschio Platinum Award (1983), order of Merit (1983), etc. *Address:* 54A, Acharya Jagadish Chandra Bose Road, Calcutta 700016.

MUDALIAR, Arcot Lakshmanaswami Ananthakrishnan, B.Sc. (Hons.), M.A. (Chem), Chairman, I.C.I. Group of Companies in India, Alkali & Chemical Corpn. of India Ltd., Indian Explosives Ltd., Crescent Dyes & Chemicals Ltd., Chemical & Fibres of India Ltd., Alchemic Res. Centre Pvt. Ltd., 1976-83. *b.* Sept. 7, 1925. Joined I.C.I. (India) in England as Comml. Asstt., 1949; Dy. Regnl. Manager, Madras, 1960; Regnl. Manager, Calcutta, 1961; Group Comml. Dir. of I.C.I. Cos. in India, 1964; Chmn., Imkemex I. Ltd., 1965; Mg. Dir., Alkali & Chemical Corpn. of India Ltd., 1969-76; Dy. Chmn., 1974; Pres., Bengal Chamber of Comm. & Ind., 1975; Pres., Assoc. Chambers of Comm. & Ind. of India, 1979-80; Chmn.: All India Bd., of Technical Educ., 1982-85, Export-Import Adv. Cttee., Eastern Zone, 1981-83, East India Clinic, Calcutta, since 1977; Mem.: Central Adv. Cttee. for Regional Engg. Colleges, Govt. of India, Council of Indian Instts. of Technology, Govt. of India, Mgmt. Professionals Assn., Madras, Cheshire Homes, Trustee; Mem.: Court of Governors, Adm. Staff Coll., Hyderabad. *Address:* I.C.I. House, 34, Chowringhee Rd., Calcutta 700071; *Res.:* 5, White House Gardens, 17, Alipore Rd., Calcutta 700027.

MUKHARJI, Mr. Justice Sabyasachi, B.A. (Hons.) (Economics), Barrister-At-Law, Judge, Supreme Court of India, since Mar. 15, 1983; *b.* June 1, 1927. Advocate, Calcutta High Court, Nov. 1949 & thereafter Supreme Court of India; Judge, Calcutta High Court, July 31, 1968; Ag. Chief Justice, Calcutta High Court, Mar. 1, 1983. *Address:* Supreme Court of India, Tilak Marg, New Delhi 110001.

MUKHERJEE, Pranab Kumar, M.A. (His. & Pol. Sc.), Minister for Finance, Govt. of India, since Jan. 15, 1982. Was Min. for Commerce and Steel & Mines, Jan. 14, 1980-Jan. 14, 1982. *b.* Dec. 11, 1935. Mem.: Exec. Cttee., Congress Parl. Party, 1972-73; Dy. Min., Min. of Indl. Devpt., Feb. 1973; Min. of Shipping & Transport, Jan. 1974; Min. of State for Finance, Oct. 1974-Dec. 1975. *Address:* North Block, New Delhi 110001.

MUTHIAH, M.Ct. (Muthiah Chidambaram Muthiah), Industrialist. *b.* Oct. 19, 1929; Chmn.: Chemoleums Pvt. Ltd., Reliance Motor Co. Pvt. Ltd.; Mg. Dir.: Cigfil Ltd.; Trustee, Sir M.Ct. Muthiah Chettiar High School, Madras; Dir.: V.S.T. Tillers Tractors Ltd., Lakshmi Machine Works, Ltd., Polychem Ltd., Travancore Rayons Ltd., Thiru Arooran Sugars Ltd., etc.; Exec. Cttee. Mem., Southern India Chamber of Comm. and Industry; Council Mem.: Fedn. of Automobile Dealers Assn.; Mem., Mg. Cttee., Motor Vehicles & Allied Inds. Assn. *Address:* Bedford House, Madras 600084.

NAMBIAR, K. P. P., M.Sc. (Lond.), D.I.C. (Lond.), F.I.E.E. (Lond.), F.I.E.T.E., S.M.I.E.E.E. (U.S.A.). Chmn. & Mg. Dir., Kerala State Electronics Development Corpn. Ltd., Keltron Component Complex Ltd.; Secy. to the Govt. & Commr. for Electronics Devpt., Inds. Dept., Govt. of Kerala. *b.* April 15, 1929. Chmn., Keltron Crystals Ltd., Keltron Magnetics Ltd., Keltron Projectors Ltd., Keltron Entertainment Systems Ltd., Dielectro magnetics Ltd., Keltron Resistors Ltd., Keltron Power Devices Ltd., Keltron Rectifiers Ltd., Keltron Counters Ltd., Keltron Ferrites Pvt. Ltd.; Bd. of Governors, Electronics Res. & Devpt. Centre; Fellow: I.E.T.E., I.E.E.; Mem., Sci. Advisory Cttee. to the Union Cabinet; Sr. Member: Instt. of Electrical & Electronics Engrs. Inc., New York. *Address: Off.:* Keltron House, Vellayambalam, Trivandrum 695001. *Res.:* Sthanu Nivas, P.T.P. Road, Pattom, Trivandrum 695004.

NANDA, Harparshad, B.Sc., Industrialist. *b.* Jan. 9, 1918. Mg. Dir., Escorts Ltd, Goetze (India) Ltd.; Chmn.: Escorts Tractors Ltd.; Sharpedge Ltd.; Lintas India Ltd.; GGR India Ltd.; Escorts JCB Ltd.; Thomson Press (India) Ltd.; Indo-German Chamber of Comm. (Northern Region); Pres.: Indo-Polish Chamber of Comm. & Ind.; Vice-Pres.: Fedn. of Indo-German Socs. in India; Mem., Exec. Cttee.: Asso. Chambers of Comm. and Ind. of India; Vice-Chmn., Governing Body, Indian Instt. of Foreign Trade (Ministry of Comm.). *Address: Off.:* 11, Scindia House, New Delhi 110001; *Res.:* 12, Jor Bagh, New Delhi 110003.

NANDY, Pritish, Publishing Director, Bennett Coleman & Co. Ltd.; Editor, *The Illustrated Weekly of India*. *b.* Jan. 15, 1947. Awarded Padma Shri, 1977, Homi Bhabha Award, 1981, E. M. Forster Literary Award, 1984; has published several books of poetry, fiction, translations and anthologies. *Address:* 93, Gitanjali, 73 Walkeshwar Road, Bombay 400006; 9D Sonali, 8/2A Alipore Park Road, Calcutta 700027.

NARAIN, Prakash, B.A., LL.B., Chief Justice, Delhi High Court, since Jan. 8, 1981. *b.* Aug. 6, 1923. Addl. Standing Counsel for Central Govt. & Delhi Admn. for Dist. Courts and later Standing Counsel, 1956-58; Addl. Central Govt. Counsel for Punjab High Court Bench at Delhi, March 1963; Central Govt. Counsel for Delhi High Court, May 1967; Judge, Delhi High Court, Jan. 1967-69; Actg. Chief Justice, June 27, 1980. *Address:* 37, Aurangzeb Rd., New Delhi.

NARASIMHA RAO, Pamulaparti Venkata, B.Sc., LL.B.; Sahitya Ratna; Minister of External Affairs, Govt. of India, since Jan. 1980. *b.* June 28, 1921. Vice-Pres., Andhra PCC, 1956; M.L.A., 1957-77; Min. for Law & Inf., Andhra Pradesh, 1962; Law & Endowments, 1964; Health & Medical, 1967; Edn., 1968; Chief Minister, 1971-73; Gen. Secy., Indian National Congress, 1974-77; Mem., Lok Sabha, 1977-79; Chmn., Bharatiya Vidya Bhavan's Andhra Centre; Telugu Academy, 1968-74; Vice-Pres., Dakshin Bharat Hindi Prachar Sabha. *Address:* Ministry of External Affairs, New Delhi 110011.

NARAYANASWAMY, S., Chmn.: Aluminium Inds. Ltd., Central Scientific Supplies Co. Ltd., India Forge & Drop Stampings Ltd., Mettur Chemical & Ind. Corpn. Ltd., Seshasayee Inds. Ltd., Simco Meters Ltd., etc. *b.* Apr. 12, 1905. Dir.: Chemicals & Plastics India Ltd.; was Pres., S. India Chamber of Comm. & Ind., Madras; Pres., Brahma Gana Sabha, Madras; Vice-Pres., Bharatiya Vidya Bhavan, Madras Kendra; Cttee. Mem.: Madras Shareholders' Assn., Kalakshetra, Adyar; Vice-Pres., Besant Centenary Trust; M.L.C., 1971-76. *Address:* "Seshadri", 8, Chittaranjan Rd., Teynampet, Madras 600018.

NARIELWALA, Phirozeshah Ardeshir, Industrialist. *b.* June 6, 1900. Vice-Pres., Indian Cancer Socy., Bombay; Trustee, Prime Minister's Natl. Relief Fund, New Delhi; Secy., Jawaharlal Nehru Memorial Fund, New Delhi. *Address:* Breach Candy Gardens, B. Desai Rd., Bombay 400026.

NARLIKAR, Dr. Jayant Vishnu, M.A., Adams Prize of Cambridge Univ., May 5, 1967, Sc.D. (Cantab.), Staff Member, Instt. of Theoretical Astronomy, Univ. of Cambridge, 1967-72; Fellow, King's Coll., Cambridge, 1963-72; Jawaharlal Nehru Fellow, 1973-75; Prof., Tata Instt. of Fundamental Res., Bombay; Scientist. *b.* July 19, 1938. Admitted to Fitzwilliam House, Cambridge, 1957; elected Berry-Ramsey Fellow of King's Coll., Jan. 1963; awarded the Tyson Medal, 1960 and the smith's Prize, 1962 by Cambridge Univ.; Bhatnagar Award for Physical Scs., 1978; Rashtrabhushan Award, FIE Foundation, 1981; Tata Scholar, 1957-63; elected Associate of the Royal Astronomical Socy., 1983; Fellow: Senior Research, King's Coll., Cambridge, 1969; Indian Natl. Sci. Academy (1977); Pres.: Indian Assn. for General Relaivity and Gravitation, 1982; Astronomical Socy. of India, 1982. *Address:* Tata Instt. of Fundamental Research, Bombay 400005.

NEHRU, Braj Kumar, B.Sc., B.Sc.(Econ.), Hon. LL.D. (Missouri Valley College), Hon. Litt. D. (Jacksonville Univ.), Hon. Fellow, London School of Economics, Bar-at-Law, I.C.S. (Retd.), apptd. Governor of Gujarat; was Governor of Jammu & Kashmir State till Mar. 1984. *b.* Sept. 4, 1909. Exec. Dir., World Bank, 1949-53 & 1958-62; Jt. Secy., Deptt. of Econ. Affairs, 1954-57; Secy., 1957-58; Commr. Gen. for Econ. Affairs, Washington, 1958-61; Amb. to U.S.A., 1961-68; Governor of Assam & Nagaland, 1968-73 and of Manipur, Meghalaya & Tripura, Jan. 1972 to Sept. 1973; Indian Rep. at: Commonwealth Fin. Ministers' Cfce., 1949-50; 1955-56; U.N. Gen. Assembly, 1949-52, 1960; F.A.O., 1949-50; Bandung Conf., 1955 etc.; High Commr. to U.K., 1973-77; Mem., U.N. Cttee. on Admve. & Budgetary Questions, 1951-53, U.N. Investments Cttee., 1961; Chmn., 1977; Vice-Pres., Vienna Instt. of Devpt., 1961. *Address:* Raj Bhavan, Gandhinagar 382020.

OBEROI, Mohan Singh, is the only major hotelier in the developing world with a multinational chain of 30 hotels in ten countries. *b.* August 1900. Pres. of Honour of the Fedn. of Hotel & Restaurant Assn. of India. Awarded "Man of the World" and "Outstanding hotelier of the year" by Intnl. Hotel Assn. (I.H.A.) in 1983; Intnl. Punjabi Society's "Man of the World" in 1983; "Hall of Fame" by American Socy. of Travel Agents (ASTA) in 1981; "Escorts-NIF Man of the year 1978"; Newsweek named him one of the winners of 1978; Govt. of India's "Udyog Patra" in 1977; "Agastya Award" of Travel Agents Assn. of India and "The Victory Pillar" from Hotel and Catering Industry of India, 1976. Remained M.P. for 12 years. Founded Oberoi School of Hotel Mgmt. in Delhi. *Address:* Oberoi Hotels Corporate Office, 7, Sham Nath Marg, Delhi 110054.

PALKHIVALA, Nani Ardeshir, M.A. (1942), LL.B. (1944), Hon. LL.D. (Princeton & Lawrence Univs.), Sr. Advocate, Supreme Court of India. *b.* Jan. 16, 1920. Chmn.: Assoc. Cement Cos. Ltd., Tata Exports Ltd., Tata Consultancy Services Ltd.; Vice-Chmn.: TELCO, Assoc. Bearing Co. Ltd.; Dir.: Tata Sons Ltd., Tata Iron & Steel Co. Ltd., Tata Energy Res. Instt., Tata Inc. (U.S.A.), Tata Ltd. (U.K.), Tata Intnl. AG (Switzerland), NOCIL; Hon. Mem., The Academy of Political Sci., N. York; Indian Ambassador to the U.S.A., 1977-79; Vice-Chmn.: Blood Bank Assn., Bombay; Trustee: Sir Ratan Tata Trust, Sir Dorabji Tata Trust; Chmn.: A. D. Shroff Memorial Trust, Lotus Trust; Pres., Forum of Free Enterprise. *Address:* C/o Bombay House, 24, Homi Mody St., Bombay 400023.

PASCARELLI, H.E. Dr. Elio, Doct. Pol. Sc., LL.D., Ambassador of Italy to India, since Aug. 1983. *b.* Sept. 26, 1922. Army Officer, 1943-45; Journalist, bar-at-law & banking, 1945-47; career diplomat, 1948; served in Austria (Innsbruck and Salzburg), 1950-52; U.S.S.R. (Moscow), 1952-55; France (Metz), 1955-58; U.S.A. (Washington), 1960-63; Japan (Tokyo), 1964-67; Texas ("Hemisfair"), 1968; Foreign Ministry (Economic Affairs), 1969-70; Amb. to Burma, 1971-75; Indonesia, 1976-80; Rome, Centre for Higher Defence Studies, 1981-83. Married to Annateresa Giunta. *Address:* 15/B. Motilal Nehru Marg, New Delhi.

PATEL, Dr. Indraprasad Gordhanbhai, is an internationally acclaimed practising economist. B.A. (Hons.), Ph.D. (Cambridge); Dir., London School of Econ. and Pol. Sci. since Oct. 1, 1984; Governor, R.B.I. from Dec. 1, 1977 to 1982; Dir. Instt. of Mgmt., Ahmedabad from 1982-1984. *b.* Nov. 11, 1924. Chief Econ. Adv., Govt. of India, 1961-63; 1965-68; Econ. Adv., Plng. Commn., 1961-63; Spl. Secy. & Secy., Min. of Finance, Govt. of India, 1968-72; also Govt. Dir. on R.B.I. and I.D.B.I.; Mem.: Atomic Energy and Space Commns., Monopolies Commn.; served as Alternate Governor for India on the Bd. of Governors of the Intnl. Bank for Reconstruction & Devpt. and Asian Devpt. Bank; Mem.: Expert Groups of U.N. including Group on the Capital Devpt. Fund, Intnl. Monetary Reform and Preparatory Work for UNCTAD-I; Dy. Admr., U.N. Devpt. Programme, 1972-77. *Address:* London School of Economics and Political Science, Houghton Street, Aldwych, London, England WC2A2AE.

PATHAK, Dambarudhar, B.A., LL.B., LL.M. (Lond.), Barrister-at-Law (Lincoln's Inn), Chief Justice, Orissa High Court, since Aug. 11, 1983. *b.* Mar. 1, 1924. Enrolled as Advocate, Gauhati High Court, 1958; Supreme Court, 1961; Mem. of Law Faculty & of Panel of Legal Advisers of Gauhati Univ.; Mem.-Secy., State Law Commn., Assam, Apr. 4, 1964 to July 31, 1973; Judge, Gauhati High Court, Aug. 8, 1973; Ag. Chief Justice, Mar. 1, 1980. *Address:* High Court, Cuttack 753002.

PATHAK, Mr. Justice Raghunandan Swarup, B.Sc. (1945), LL.B. (1947), M.A. (1948), Judge, Supreme Court of India, since Feb. 20, 1978. *b.* Nov. 25, 1924. Advocate, Allahabad High Court, Nov. 8, 1948 and of Supreme Court, 1957; Addl. Judge, Allahabad High Court, Oct. 1, 1962; Permanent Judge, July 23, 1963; Chief Justice, Himachal Pradesh High Court, Mar. 18, 1972; Mem.: Indian Law Instt., Intnl. Law Assn. (London), Exec. Cttee., Intnl. Law Assn. (Indian Branch); Vice-Pres., Indian Socy. of Intnl. Law. *Address:* 4, Motilal Nehru Marg, New Delhi 110011.

PATIL, Vasantdada, Chief Minister, Maharashtra State, since Feb. 2, 1983. *b.* Nov. 13, 1917. Participated in the Quit India Movement, 1942; played a key role in the co-optve. movement and organised the setting up of distilleries, cement factory, spg. mills, poultry farms, sugar factories, etc. in that sector; was Pres., M.P.C.C.; Irri. & Power Minister, Maharashtra, Mar. 16, 1972—Feb. 1976; Chief Minister, Apr. 17, 1977; elected to Lok Sabha from Sangli, Jan. 1980; Gen. Secy., Congress (I) Party, Sept. 1980. *Address:* Chief Minister's Sectt., Mantralaya, Bombay 400032.

PATNAIK, Janaki Ballav, M.A. (Pol. Sc.), Chief Minister, Orissa, since June 9, 1980. Editor, *Eastern Times*, Cuttack, 1952-66; *Prajatantra* (Oriya), 1952-67; Mem.: Standing Cttee., All India Newspaper Editors, Cfce., 1956-60; Orissa Sahitya Akademi, 1956-67; A.I.C.C.; Fellow, Utkal Univ, Senate, 1957-67; Dy. Min. of Defence, Govt. of India, Feb. 1973; Min. of State for Defence, Govt. of India, 1976; elected to Lok Sabha, 1980; Min. for Labour and Tourism and Civil Aviation, Govt. of India, Jan. 1980 to June 1980. *Address:* Chief Minister's Residence, Unit 1, Bhubaneswar.

PHILIP, Kandathil Mammen, M.A. (Hons.), FPRI (U.K.), Industrialist. *b.* May 2, 1912. Promoter & Dir., Madras Rubber Factory Ltd., M. M. Rubber Co. Ltd., India Coffee & Tea Distributing Co. Ltd., etc.; Hony. Life Mem., All India Rubber Inds. Assn.; Ex-Pres., Indian Rubber Inds. Assn. and World Alliance of YMCAs, Geneva; Dir.: Kerala Shipping Corpn. Ltd., OEN Connectors Ltd., Dhrangadhra Chemical Works Ltd.; Pres., National Council of YMCAs of India, Indian Rubber Mfgrs. Res. Assn. *Address:* Silver Arch, 1st Flr., Petit Hall Compound, Nepean Sea Rd., Bombay 400006.

PILLAI, Subramanian Velayudhan, Mg. Dir., Pfizer Ltd., since Dec. 1970. *b.* Aug. 1928. Joined Pfizer Ltd., 1950; Elected on the Pfizer-India Bd. of Directors, 1965; Gen. Manager, Sept.-Dec. 1970; was also Area Controller for South East Asia Region. *Address:* Pfizer Ltd., Express Towers, Nariman Point, Bombay 400021.

PIRACHA, H.E. Mr. Riaz, B.A. (Hons.), M.A., Amb. of Pakistan to India, since Aug. 3, 1982. *b.* 1924. Joined Foreign Service, 1949 & served in various diplomatic assignments at New York, Cairo, Khartoum, Kuala Lumpur & Hongkong; Under-Secy: Dir. & Dir.-Genl., Foreign Office; Amb. to Belgium, Luxemburg & E.E.C., 1968-70; Burma & Singapore, 1970-75; Australia, New Zealand & Fiji, 1975-78; Afghanistan, 1978-79; Addl. Secy. at Hqrs., 1979-80; Foreign Secy., May 1980. *Address:* Embassy of Pakistan, 2/50-G, Shanti Path, Chanakyapuri, New Delhi 110021.

PISHAROTY, Dr. Pisharoth Rama, B.A. (Hons.), M.A. (Madras), M.A. (Calif.), Ph.D. (Calif.); F.N.A., F.A.Sc., Scientist; Sr. Professor, Physical Research Laboratory, Ahmedabad, 1966 to 1976. *b.* Feb. 10, 1909. Conducted substantial research under Sir C.V. Raman at Bangalore; joined the Indian Meteorological Deptt., 1942; Research Meteorologist in U.S.A., 1952-54; Dir., Colaba & Alibagh Observatories, 1959-62; Instt. of Tropical Meteorology, 1962-66; Chmn., WHO Advy. Cttee., 1968; Mem., Intnl. Orgn. Cttee. for Global Atmospheric Res. Programme, 1968-75; Vice-Pres.: Intnl. Assn. for Meteorology and Atmospheric Physics, 1972-79; Advisor, India Space Res. Orgn. *Address:* Professor Emeritus, Physical Research Laboratory, Ahmedabad 380009.

PODAR, Ganesh Narayan R., Industrialist & Businessman; Chairman Podar Group consisting of: Textile Mill, Plastics Mfg., Trading, Warehousing, Finance & Investment. *b.* May 11, 1930. Chmn.: Ganesh Podar Foundn. Donors of: Seth Anandilal Podar High School, Santa Cruz, Bombay; Raja Ramdeo Podar Multipurpose Higher Secondary School, Jaipur; R. A. Podar Coll. of Commerce & Economics, Matunga, Bombay; Cttee. Mem.: Indian Merchants' Chamber, Bombay, etc.; Ex-Cttee. Mem.: F.I.C.C.I., New Delhi; All India Mfgrs'. Orgn., Bombay; Ex-Pres.: Western India Automobile Assn., Bombay; Indian Merchants' Chamber, Bombay; Silk & Art Silk Mills' Res. Assn., Bombay; Rajasthan Textile Mills' Assn., Jaipur. *Address:* Podar Chambers, S. A. Brelvi Road, Fort, Bombay 400001.

PODAR, Kantikumar R., B.Com., Industrialist. *b.* Apr. 12, 1935. Vice-Chmn., Podar Orgn.; Chmn. of several Cos. under it and Dir. of several Pub. Ltd. Cos., Pres., All India Orgn. of Employers, Apr. 1974—Mar. 1976; Employers' Assn. of Rajasthan, 1968-76; Mgmt. Assn. of Rajasthan, since 1968; Textile Assn. (India), Bombay, 1975; Chmn., Millowners' Assn., Bombay, 1976-78: Vice-Pres., Indian Council of Foreign Trade, 1972-83; Sheriff of Bombay, 1974; Pres., Indian Merchants' Chamber, 1982; Dy. Chmn., Bombay Textile Res. Assn.; Indian Cotton Mills' Fedn.; Cttee. Mem.: All India Orgn. of Employers, Millowners' Assn., Bombay, Nat. Labour Instt., etc. Mem. of Senate of Univ. of Bombay. *Address:* Podar Chambers, S. A. Brelvi Road, Bombay 400001.

PODAR, Ramnath Anandilal, LL.D. (Honoris Causa), Industrialist. *b.* Jan. 21, 1910. Joined business, 1927; Chmn.: Bank of Jaipur, 1949-57; Devpt. Council for Silk and Art Silk Industry, 1955-59; Rajasthan Financial Corpn., 1955-68; Mill Owners' Assn., Bombay, 1957-61; Cotton Advy. Bd., 1957-62; Export Credit & Guarantee Corpn., 1962-64; Indian Cotton Mills, Fedn., 1963-65;

Pres.: F.I.C.C.I., 1969-70; Rajasthan Chamber of Comm. and Industry, 1950-52 & 1960-68; Indian Merchants' Chamber, 1966-67; Dy. Chmn.: Bombay Textile Res. Assn., 1959-65; Dir.: East India Cotton Assn., 1946-49; State Bank of India (Central Bd.), 1957-67; Mem.: Bombay Municipal Corpn. (1943-52); Bombay Legislative Assembly (1946-52); Mem. of Parliament, 1952-54. *Address:* Podar Chambers, S. A. Brelvi Rd., Bombay 400001.

PODDAR, Ramprasad, President, Century Spg. & Mfg. Co. Ltd., Bombay. *b.* 1914. Started with Birla Orgn. of Jiyajeerao Cotton Mills, Gwalior, 1936; Gen. Manager, Birla Cotton Mills, Delhi, 1943; Dir., Udyog Services Ltd., Bombay; Pilani Investment & Industries Corpn. Ltd., Gwalior; Nav Bharat Refrigeration Co. Ltd., Bombay; Ex-Pres., Delhi Factory Owners, Fedn., 1953-54; Hony. Major in Territorial Army; Past Pres., Textile Assn. (India); Chmn., Millowners' Assn., 1973 & 1974; Ex. Mem., Cttee. of Indian Cotton Mills' Fedn., 1971-76; Mem., Cttee. of Cotton Textiles Export Promotion Council, Millowners' Assn.; Ex-Pres.: All India Marwari Fedn. *Address:* Century Spg. & Mfg. Co. Ltd., Century Bhavan, Dr. Annie Besant Rd., Worli, Bombay 400025.

PREMJI, Akber Alibhai, S.E.M., Social Worker and Businessman. *b.* Sept. 30, 1922. Sr. Mem., Allibhai Premji Tyrewalla; Mem., Prince Aga Khan Ismailia Federal Council of India, Mah. State Nat. Integration Cttee., Intnl. Tourism Council, etc.; Pres., Fidai Academy, Socy. of the Special Exec. Magistrates & Hony. Metropolitan Magistrates of Bombay, Greater Bombay New Tyre Dealers Assn.; Vice-Pres., Indo-Arab Socy.; Dir., Awami Co-op. Bank Ltd. *Address:* Allibhai Premji Tyrewalla, Allibhai Premji Rd., Near Apsara Cinema, Bombay 400007.

RAM, Dr. Bharat, Chmn. & Mg. Dir., Delhi Cloth & General Mills Co. Ltd.; Pres., Intnl. Chamber of Comm., 1969-71, *b.* Oct. 5, 1914. Chmn.: Coromandel Fertilisers Ltd., Shriram Bearings Ltd., Bengal Potteries Ltd., DCM Intnl. Ltd.; Dir.: Escorts Ltd., Bajaj Electricals Ltd., East India Hotels Ltd., New India Assurance Co., Ltd., etc.; Mem.: Nat. Commn. on Labour, All India Council for Tech. Educ., Exp. Promotion Adv. Council, Council of Inventions Promotion Board, Export Import Adv. Council, Ind. Nat. Cttee. of ICC, Cttee. of All India Orgn. of Ind. Employers etc., and several other bodies; ex-Chmn., I.A.C. *Address:* 25, Sardar Patel Rd., New Delhi 110021.

RAM NARAIN, Pandit, Musician & Sarangi Player. *b.* Dec. 25, 1927. Gave solo concert status to the Sarangi; has given performances in music festivals all over the world; recipient of "Best Indian Instrumentalist" award for 1975, Sangeet Natak Academy. Awarded Padma Shri, 1975; made 20 L.P. recordings all over the world. *Address:* 20, Sujata, Ghodbunder Rd., Bandra, Bombay 400050.

RAMACHANDRA, Kanakanahalli, M.Sc., Ph.D., F.N.A., F.A.Sc., Fellow of Biographical Acad. of Commonwealth, Scientist; Prof., School of Mathematics, Tata Instt. of Fundamental Res., Bombay, since 1975. *b.* Aug. 18, 1933. Took up res. career, TIFR, Bombay, 1958; Doctorate degree, 1964; Associate Prof., School of Mathematics, Tata Instt. of Fundamental Research, 1970-75; published Papers on Algebraic numbers, Transcendental numbers, Diophantine Analysis & Prime Numbers. *Address:* School of Maths., TIFR, Homi Bhabha Rd., Colaba, Bombay 400005.

RAMACHANDRAN, M. G., Chief Minister, Tamil Nadu, since June, 1980. *b.* Jan. 17, 1917. Was member, D.M.K. prior to founding of AIADMK on Oct. 17, 1972; actor, producer and director; M.L.A., since 1967; Chief Min., Tamil Nadu, 1977 to Feb. 2, 1980. *Address:* Secretariat, Fort St. George, Madras 600009.

RAMACHANDRAN, Parthasarathi, M.A. (Econ.), Governor of Kerala, since Oct. 27, 1982. *b.* July 15, 1921. Associated with Indian National Congress since student days; Secy., T. N. Congress (O) Cttee., 1969-72; its Pres., 1972-77; M.L.A., Madras, 1957-67; elected to Lok Sabha from Madras Constituency, 1977; Min. of Energy in the Union Cabinet, 1977; Chmn., Food Corpn. of India, Dec. 11, 1981 to Oct. 25, 1982. *Address:* Raj Bhavan, PO. K.G. Camp, Trivandrum 695099.

RAMALINGASWAMI, Prof. V., M.B.B.S., M.D., D.Phil., D.Sc. (Oxford Univ.), F.R.C.P. (Lond.), F.R.C. Path. (Lond.), Dir.-Genl., Ind. Council of Medical Res., New Delhi. *b.* Aug. 8, 1921. Pathologist, Nutrition Res. Lab., 1947-54; Dy. Dir., I.C.M.R., New Delhi, 1954-57; Prof. of Pathology, All India Instt. of Medical Sci., New Delhi, 1957-69; Dir., 1969-79; contributed to med. res. in the fields of 'Protein Calorie Malnutrition', 'Himalayan Endemic Goitre' & 'Endemic Goitre in S. East Asia', 'Liver Diseases in India', 'Liver Cancer', etc. *Address:* I.C.M.R., Ansari Nagar, New Delhi 110029.

RAMANNA, Dr. Raja, B.Sc. (Hon.), Ph.D., D.Sc. (Honoris Causa) by several Univs. *b.* 1925. S. S. Bhatnagar Memorial Award for Physical Sciences. 1963; Padma Shri, 1968; Padma Bhushan, 1973 and Padma Vibhushan, 1975. Joined Atomic Energy Establishment, Trombay (now Bhabha Atomic Research Centre) in 1953 as Head, Nuclear Physics Divn. and later became Dir., BARC and Member for R. & D. Atomic Energy Commn., June 1972 to June 1978; Scientific Adviser to Defence Minister; Dir.-Gen., Defence Res. and Devpt. Orgn. & Secy. in the Ministry of Defence for Defence Res., July 1978; Dir., BARC and Secy., Deptt. of Atomic Energy since Jan. 1, 1981; Chmn., Atomic Energy Commn. since Sept. 1, 1983; collaborated in the design, installation & commissioning of various research reactors & accelerators; Chmn., Indian Instt. of Tech., Bombay, since 1975; Mem., Scientific Adv. Cttee. to the Dir. Gen., IAEA, Vienna, since 1982; Mem., Scientific Adv. Cttee. to the Cabinet; Gen. Secy., Nehru Science Centre; Pres., Physics Secn., Golden Jubilee Session (1963) of the Indian Science Congress; Ex-Chmn., Bharat Electronics Ltd., Bangalore; Pres., Indian National Science Acad.; Vice-Pres., Indian Acad. of Sci. *Address:* Deptt. of Atomic Energy, Bombay 400039.

RAMA RAO, Nandamuri Taraka, Chief Minister, Andhra Pradesh. *b.* May 28, 1923. Enacted male and female roles in Telugu dramas during student days; entered films, 1948 and has enacted roles in more than 300 films of mythological, historical, folklore and social themes, attaining fame and popularity; also entered the field of films production & direction; has evinced keen interest in national affairs and contributed & collected his best for the amelioration of sufferers of natural calamities; 'Padma Shri', 1968; 'Kala Prapoorna' from Andhra Univ., 1978; 'Nataratna' by his admirers; 'Viswavikhyata Nata Sarvabhouma' by Srisailam Pitadhipati; founded Telugu Desam Party, March 29, 1982 and became its first Pres., elected to A.P. Leg. Assembly from Tirupati & Gudivada constituencies, Jan. 5, 1983. *Address:* Chief Minister's Sectt., Hyderabad 500022.

RAMASARMA, Gollakota Butchi, B.Sc. (Hons.), A.I.I.Sc., Ph.D.; Acharya Sir P. C. Roy Memorial Gold Medal (1970), Prof. M. L. Schroff Memorial Award (1979 Tech. Adviser, Raptakos, Brett & Co. Ltd. Bombay *b* Feb. 20, 1915. Joined Raptakos, Brett & Co. Ltd. as Biochemist, 1943; Chief, Res. & Control Divn., since 1951; Staff Dir., 1954; Dy. Mg. Dir., 1964-72; Mg. Dir., 1972-75; Editor, *Indian Journal of Pharmacy*, 1954-67; Pres.: 29th Indian Pharmaceutical Congress, 1977; Chmn.: Govg. Body, Bombay College of Pharmacy since 1976; was Mem.: Dev. Council for Drugs & Pharmaceuticals, Pharmacy Council of India, Indian Pharmaceutical Delegation to Europe, U.K., U.S.A. & Japan, Indian Pharmacopoeia Cttee., Drugs Technical Adv. Bd.; Pres., Indian Phamaeceutical Assn., 1972-74. *Address:* 152, Rd. No. 9, Wadala, Bombay 400031.

RAMASWAMY, S., better known as Cho, a well-known figure in Tamil Nadu, lawyer, playwright, stage and screen artiste, journalist, amateur photographer and political satirist. *b.* Oct 5, 1934. Editor of Tamil fortnightly 'Thuglak', which was started in 1970 with 35,000 circulation and crossed the 2 lakh mark in 1971. Started English fortnightly 'Pickwick' in 1977. Written scripts for 10 films, acted in 120, written and directed 20 dramas, 4 novels. Popular plays are 'Mohammad Bin Tughlak', 'Vedachari', 'Sambhavami Yuge Yuge', 'Yarrukum Vetkamillai', etc. Acted as Pres. of the People's Union of Civil Liberties (PUCL) from which he resigned in 1982. *Address: Office:* Cho Ramaswamy, Thuglak, 8, Seethamma Road, Alwarpet, Madras 600018.

RAMESH Chandra, B.Sc. (Banaras Hindu Univ.), Exec. Dir., Bennett, Coleman and Co. Ltd., Proprietors, Times of India Group of Publications. *b.* Aug. 15, 1925. Served as Sr. Vice-Chmn., Municipal Bd., Najibabad (U.P.); joined the Times of India Group in 1959; presently Dir.: Press Trust of India & Samachar Bharti; Exec. Mem.: Indian & Eastern Newspaper Society, New Delhi; Mem.: Central Advisory Bd. for Comml. Broadcasting, Govt. of India; Trustee: Bharatiya Jnan Peeth; Hon. Secy.-Gen.: All India Jain Parishad; Thomson Foundation Fellow (1968); Indian delegate to Intnl. Press Cfce. in Oslo and the Commonwealth Press Cfce., London, 1977. *Address:* 4, Tilak Marg, New Delhi 110001.

RAMISCH, H.E. Mr. Rolf, Ambassador of Federal Republic of Germany to India, since 1980. *b.* Sept. 18, 1919. Foreign service, 1952; Embassy in Rio de Janeiro, 1954-57; Colombo as Dy. Chief of Mission, 1959-66; Foreign Office, 1966-70; Amb. to Burma, 1970-73; Head, Foreign Service Trg. Instt., Bonn, 1973-77; Insp. Gen., Foreign Office, 1977-79. *Address:* Embassy of the Federal Republic of Germany, 6, Shantipath, Chanakyapuri, New Delhi 110021.

RANGANATHAN, Gopal Shankar, M.S. (Wood Tech.) (Univ. of Michigan). Pres.: Ion Exchange (India) Ltd., Bombay. *b.* Feb. 14, 1926. Fellow, Mah. Academy of Sciences; Mem., Govng. Bd., Socy. for Promotion of Wastelands Devptt. Actively interested in conservation and rural development. *Address:* 2, Flowermead, Westfield Estate, B. Desai Rd., Bombay 400026.

RANGANATHAN, Saurirajan, Ex-M.P. (Rajya Sabha), M.A. (Madras), I.C.S. (Retd.), Chmn., Lucas-TVS, Madras; Ex-Chmn., Ashok Leyland Ltd. *b.* Nov. 12, 1908. Was permanently deputed from U.P. to the Govt. of India, 1939; was Secy., Min. of Ind., Govt. of India, 1956-66; Retd. from I.C.S., 1966; Comptroller & Auditor Gen. of India, 1966-72; was Chmn.: Indian Red Cross Socy., St. John's Assoc. & Hind Kushst Nivaran Sangh for six years; Pres., T.B. Assn. of India. *Address:* D73, Panch Sheel Enclave, New Delhi 110017.

RAO, Dr. Calyampudi Radhakrishna, M.A., Ph.D. and Sc.D. (Cantab.), Fellow, Royal Socy., Lond., 1967; Foreign Hon. Mem., Am. Acad. of Arts & Sci., 1975; Hon. D.Sc.: Andhra, Delhi, Athens, Ohio State, Osmania, Philippines & Leningrad Univs.; Scientist. *b.* 1920. Hon. Fellow & Guy Medallist, Royal Stat. Socy.; Hon. Fellow, Kings Coll., Cambridge; Mem.: Intnl. Stat. Instt.; Council, Biometric Socy., 1952-61; 1966-68; Fellow, Instt. of Mathematical Stat.; American Stat. Assn.; Econometric Socy., U.S.A.; Indian National Sci. Academy; Ind. Acad. of Sci.; Treasurer, Intnl. Stat. Instt., 1962-65; Vice-Pres., INSA 1973; Pres.: Biometric Socy., 1974; Intnl. Stat. Instt., 1977-79; Inst. Math. Stat., 1977; "Prof. Honorario", Univ. San Marcos, Lima, Peru, 1982; Hon. Mem., Intnl. Statistical Instt., 1982; and Editor, *Sankhya;* recipient of S. S. Bhatnagar Award, 1963; Meghnad Saha Medal, 1969; J. C. Bose Gold Medal; Prof., Ind. Stat. Instt.; visiting professorships abroad. *Address:* 7, S. J. S. Sansanwal Marg, New Delhi 110029.

RAO, Chintamani Nagesa Ramachandra, M.Sc. (Banaras), D.Sc. (Mysore), Ph.D. (Purdue), D.Sc. Ch. c. Purdue and Bordeaux), F.R.S.C. (Lond.), F.A.Sc., F.N.A., F.R.S., Marlow Medal, Faraday Socy., Lond. (1967); Bhatnagar Award (1968); Yeddanapalli Medal and Prize (1973); Jawaharlal Nehru Fellow (1973); Centennial Foreign Fellow, American Chem. Soc.; Scientist; FICCI Award in Physical Sci. (1975); Sir C. V. Raman Award in Physical Sci. of U.G.C. (1978); S. N. Bose Medal of Indian Nat. Sci. Acad. (1980); The Chemical Society (London) Medal (1981); Fellow of the Royal Society (1982); Jawaharlal Nehru Prof., Univ. of Cambridge, U.K., 1983-84; Commonwealth Visiting Prof. at Oxford Univ., 1974-75; Chmn., Hindustan Insecticides Ltd. (1969-75); Sr. Prof. of Chem., Indian Instt. of Technology, Kanpur. *b.* June 30, 1934. Head, Chemis. Deptt., I.I.T., Kanpur & later Dean of Res. & Devpt.; Chmn., Chemical Res. Cttee. of the C.S.I.R.; Mem., Scientific Adv. Ctte, to the Cabinet, 1981; Pres-Elect, Intnl. Union of Pure and Appl. Chem. and Cttee. on Data on Sci. & Tech. I.C.S.U.; National Cttee. on Sci. & Tech.; Vice-Pres.: Acad. of sciences and Indian Nat. Sci. Akademy; Mem., Science Advisory Cttee. to the Union Cabinet; contributed to the molecular structure & spectroscopy, solid state chemistry & surface science. *Address:* Chmn., Solid State and Structural Chemistry Unit, Indian Instt. of Sci., Bangalore 560012.

RAO, Dr. Vijayendra Kasturi Ranga Varadaraja, M.A. (Bombay), B.A., Ph.D. (Cambridge), D.Litt. (Delhi), D.C.L. (Hon.), Oxford, 1969; Hon. Fellow; Gonville and Caius Coll., Camb., 1971; foremost economist and national professor. *b.* July 8, 1908. Dir. of Stat. and subsequently Plng. Adv., Food Dept., Govt. of India (1944-46); Chmn., U.N. Sub-Commn. on Eco. Devpt. (1947-50); Corresponding Mem., Instt. de Science Economique Applique, Paris since 1948; Mem., Univ. Prof. and Founder Dir., Delhi School of Economics, Univ. of Delhi, 1942-57; Vice-Chancellor, Delhi Univ., 1957-60; Founder Dir., Instt. of Economic Growth, 1960-63; Mem., Plng. Commn., 1963-66; Min. for Transport & Shipping, 1967-69; Min. for Edn. & Youth Services, Govt. of India, Feb. 1969—Mar. 1971; Elected M.P., 1971; Founder Dir.: Instt. for Soc. & Econ. Change, 1972-77; Prof. Emeritus, Instt. for Soc. & Econ. Change, 1980. *Address:* 'Dayanidhi', 1170-A, 26-A, Main Rd., 4th Block, Jayanagar, Bangalore 560011.

RAY, Satyajit, B.A., Magsaysay Award for Journalism and Literature (1967); Film Producer and Dir. *b.* May 2, 1921. Produced the film *Pather Panchali;* won the 1959 Selznick award and the Gold Laurel trophy for his films *Pather Panchali* and *Aparajito;* won the 1963 Selznick's Golden Laurel for the non-American best film showing intnl. understanding; his other films are *Aparajito, Apur Sansar, Paras Pathar, Jalsaghar, Devi, Teen Kanya, Abhijan, Kanchenjunga, Nayak, Goopy Gyne and Bagha Byne, Aranyer Din Ratri, Pratidwandi, Simabaddah, Ashani Sanket, Sonar Kella, Jana-Aranya & Shatranj ke khilari;* awarded first prize for best film direction for his *'Mahanagar' and Charulata'* by the Berlin Intnl. Film Festival, 1964 and 1965; special award of honour by the 16th Intnl. Film Festival in Berlin in recognition of his artistic eminence in the world of film, 1966. *Address:* 1/1, Bishop Lefroy Rd., Calcutta 700020.

REDDY, Mr. Justice Ontethupalli Chinnappa, M.A., B.L., Judge, Supreme Court of India, since July 17, 1978. *b.* Sept. 25, 1922. Advocate, High Court, Madras, 1944; Hyderabad, 1956; State Pub. Prosecutor, 1960; Addl. Judge, A.P. High Court, Aug. 1967—Nov. 1967; Punjab & Haryana High Court, June 1976; Actg. Chief Justice for some time; re-transferred to A.P. High Court, Aug. 1977. *Address:* Supreme Court of India, Tilak Mrg., New Delhi 110001.

RUIA, Madanmohan Ramnarain, B.A., Merchant, Banker and Millowner. *b.* Aug. 24, 1914. Dir.: Bajaj Auto Ltd., Baroda Rayon Corpn. Ltd., Great Eastern Shipping Co. Ltd., Century Spg. & Mfg. Co. Ltd., Bombay Oxygen Corpn. Ltd., etc.; Pres.: F.I.C.C.I., 1959-60; East India Cotton Assn., Ltd., 1956-73; Cotton Buyers' Assn.; Ex-Trustee, Bombay Port Trust, 1955-75; Mem.: Bombay Customs Advy. Cttee.; Leader: Indian Delegation to Afro-Asian Eco. Cfce., 1958; Intnl. Businessmen's Cfce., Karachi, 1960, etc. *Address:* Eucharistic Congress Bldg., 5, Convent St., Bombay 400039.

RUIA, Radhakrishna Ramnarain, B.A., Merchant and Millowner; Chmn. and Mg. Dir., Phoenix Mills Ltd. *b.* Jan. 9, 1916. Dir.:

U.P. Straw and Agro Products Ltd.; Radhakrishna Ramnarain Ltd.; Dhrangadhra Chemical Works Ltd., etc.; Chmn.: Govng. Council of Bombay Textile Res. Assn. *Address:* Phoenix Mills Ltd., Senapati Bapat Marg, Lower Parel, Bombay 400013.

SABAVALA, Sharokh, Hons. Deg., Oxford, Business Executive. *b.* Dec. 7, 1918. Reporter, *Bombay Sentinel*, 1943; Editor, *Free Press Journal*, 1949; McGraw-Hill World News Corspdt., 1952; Bombay Corspdt., *Christian Science Monitor*, 1953; CSM Spl. Corspdt. in New Delhi for India, Pakistan, Afghanistan, Sri Lanka, Nepal and Burma, 1962-1967; Pub. Relations Adv. to Tata Inds., 1967; Dir.: Tata Sons Ltd., Tata Inds. Ltd., Tata Iron & Steel Co. Ltd., Tata Press Ltd., Tata McGraw-Hill Publishing Co. Ltd., Lakme Ltd., Tata Aircraft Ltd., Indian Tube Co. Ltd., Mem.: Govng. Council, Tata Energy Res. Instt. National Centre for the Performing Arts. *Address:* Bombay House, Homi Mody St., Bombay 400023.

SALGAOCAR, Vasudeva Mahadeva, Industrialist. *b.* May 13, 1916. Chmn. of the Salgaocar Group of Companies covering mining, intnl. shipping, travel, industrial gases, chemicals, shipbuilding, river transport, ore processing, etc. Ex-Chmn.: Goa Zonal Cttee., Assn. of Indian Engg. Ind.; Chmn.: Shipbuilding Ind. Socy. of Goa; Automobile Corpn. of Goa Ltd.; Pres.: Goa Vocational Trg. Centre, Salgaocar Medical Res. Centre, etc.; Mem.: Indian Tech. Cttee., American Bureau of Shipping; Tech. Cttee., Lloyds Register of Shipping; Tech. Cttee., Nippon Kaiji Kyokai; Mormugao Plng. & Devpt. Cttee.; State Council of Techl. Educ.; Environmental Cttee. of Govt. of Goa, Daman & Diu. Ex-Pres.: Goa Chamber of Comm. & Ind.; Trustee: Mormugao Port Trust. *Address:* P. Box 14, Salgaocar House, Vasco-da-Gama, 403802, Goa.

SANDHAWALIA, Surjit Singh, B.A. (Hons.), LL.B., Chief Justice, Patna High Court. *b.* July 27, 1925. Advocate, Bombay High Court, 1948; Punjab High Court, 1952; Addl. Judge, Punjab & Haryana High Court, 1968; Judge, 1971; Actg. Chief Justice, July 17, 1978; Chief Justice, Pun. & Haryana 1978; Actg. Governor, Haryana, 1979-80; Actg. Governor, Punjab, 1983. *Address:* High Court, Patna 800004.

SANGMA, Capt. Williamson A., Chief Minister, Meghalaya, since Apr. 2, 1983. *b.* Oct. 18, 1919. Entered politics and Founder Mem.: Garo National Council; its Pres., since 1947 except for a year in 1949; first Chmn. of E. India Tribal Union, which launched demand for a separate Hill State for Autonomous Hills Dists. of Assam; elected to Assam Leg. Assembly, 1957; Min. for Tribal Areas, Transport, Pub. & Inf., Assam; resigned from the Cabinet, 1960; Assembly, 1961; one of the founders of All Party Hill Leaders' Confce; its Chmn., 1961-76; re-elected to Assam Assembly, 1962; resigned, 1963; M.L.A., 1967; resigned, 1968; elected to Interim Leg. Assembly of Meghalaya, Mar. 1970, and became the first Chief Min. of Meghalaya, April 2, 1970; elected Ldr. of the Congress Parl. Party and headed the first ever Congress Ministry, 1976-78; Chmn., State Plng. Board, May 1979; Chief Min., Meghalaya, May 8, 1981 to Feb. 24, 1983. *Address:* Rockside Bungalow, Shillong.

SEMA, Hokishe, Governor of Himachal Pradesh, since April 16, 1983. *b.* Mar. 6, 1921. Graduated from Gauhati Univ.; inducted in the State Civil Service and served as Asstt. Commr., 1956-61; resigned and entered politics, 1961; Councillor for Finance & PWD, Interim Govt. of Nagaland, 1961-63; Finance & Pub. Works Min., Nagaland, 1963-69; Chief Minister, 1969-74; made valuable contributions at the national level as a member of the High Power Panel of Minorities, Scheduled Castes & Scheduled Tribes as well as Commn. for Scheduled Castes & Scheduled Tribes, Govt. of India; Mem.: Indian delegation to U.N. Gen. Assembly, 1972 & 1974; led a delegation of the Indo-Soviet Friendship to Moscow, 1976. *Address:* Raj Bhavan, Simla 171002.

SEN, Mr. Justice Amarendra Nath, B.A., B.L., Judge, Supreme Court of India, since Jan. 28, 1981. *b.* Oct. 1, 1920. Called to the Bar by the Inner Temple, London, 1946; Barrister, Calcutta High Court, 1947; Judge, 1965; Chief Justice, Dec. 26, 1979. *Address:* Supreme Court of India, Tilak Marg, New Delhi 110001.

SEN, Mihir Kumar, B.Sc., LL.B., Barrister-at-Law, Associate Fellow, Br. Inter-Planetary Socy., Swimmer. *b.* Nov. 16, 1930. Called to the Bar from Lincoln's Inn, Nov. 1954; set up practice at Calcutta High Court, May 1956; first ever Indian to attempt and swim the English Channel from Dover to Calais, Sept. 1958, in 14 hours 45 mins., then the fourth fastest in this direction; first man to swim the Palk Strait, a distance of 22 miles between India & Sri Lanka in 25 hrs. 36 min., 5/6 April, 1966; first Asian to swim the Straits of Gibraltar on Aug. 24, 1966; first man to swim the Dardanelles Straits, a distance of about 45 miles, in 13 hours and 55 minutes, Sept. 12, 1966; swam the Straits of Bosporus, 16 miles, Sept. 21, 1966; Panama Canal, 42 miles, 35½ hours, Oct. 29 to 31, 1966; acknowledged as the world's Greatest Long Distance Swimmer by Guinness Book of Records, Lond., 1969; Fellow, Royal Geographical Socy., Lond., 1980. Founder, Explorers' Club of India, Calcutta. *Address:* 10, Government Place East, Calcutta 700069.

SETH, Darbari Shah, B.Sc. (Hons.), M.Sc. (Punjab), M.S. (Cincinnati), Industrialist. *b.* Jan. 1, 1920. Chmn. & Mg. Dir., Tata Chemicals Ltd.; Chmn.: Tata Oil Mills Co. Ltd., Tata Energy Res. Instt., N. Delhi: Rallis India Ltd., Tata-Finlay Ltd., Varuna Investments Ltd.; Chmn., Mgmt. Cttee., UNITATA Sdn. Bhd., Malaysia; Chmn. & Dir., Tritea Inc., New Jersey, Dir: Tata Sons Ltd., Tata Inds. Ltd., New India Inds. Ltd., Wallace Flour Mills Co. Ltd., Goodlass Nerolac Paints, Berta Services Sdn. Bhd., Malaysia, Tata A.G., Zug, Tata Ltd., London, Tata Inc., N. York; Mem.: Rural Welfare Bd., Sir Dorabji Tata Trust, Intnl. Solar Energy Socy., Australia, Trusteeship Foundn., Court of Ind. Instt. of Sci., Bangalore, Foundn. for Alternatives in Devpt. *Address:* Bombay House, 24, Homi Mody St., Bombay 400023.

SETHI, Prakash Chand, B.A., LL.B., Minister for Planning, Govt. of India, since July 1984; Home Minister, Sept. 1982-July 1984; Minister for Railways, Jan. 15 to 2nd Sept. 1982. Was Min. for Petroleum, Chemicals & Fertilizers, Oct. 19, 1980—Jan. 14, 1982. *b.* Oct. 19, 1920. Mem., A.I.C.C., 1951; M.P., Rajya Sabha, 1961; re-elected, 1964; to Lok Sabha, 1967, 1971, 1980; Dy. Min. for: Steel & Heavcy Engg., 1962-64; Steel & Mines, 1964-66; Iron & Steel, 1966-67; Min. for Steel, Mines & Metals, 1967-69; Min. of State for Finance, Feb. 1969-June 1970; Defence Production, 1970-71; Min. for Petroleum & Chemicals, 1971-72; Chief Minister, Madhya Pradesh, 1972-75; Min. for Chemicals & Fertilizers, 1976-77; elected to Lok Sabha, 1980; Min., Works & Housing, Jan. 14, 1980-Oct. 19, 1980. *Address:* North Block, New Delhi 110001.

SETHI, Dr. Pramod Karan, inventor of the 'Jaipur Foot' technique for rehabilitation of victims of polio and loss of limbs. Head, Dept. of Orthopaedics and Dir. of S.M. Hospital's Rehabilitation Research Centre, Jaipur. *b.* 1927, M.B.B.S., M.S., 1952, F.R.C.S. (Edin.); Fellow of Royal College of Surgeons, 1954; presented paper on 'Jaipur Foot' at first World Congress on Prosthetics in Switzerland in 1974, Awarded Western India Orthopaedics Assn. gold medal for Katrak Oration, Magsaysay Award, 1981, Guinness Award, 1982, Rameshwardas Birla national award, 1983. *Address:* Rehabilitation Research Centre, Sawai Mansingh Hospital, Jaipur.

SHAH, Viren J., Chmn. & Mg., Dir., Mukand Iron & Steel Works Ltd. *b.* May 12, 1926. Dir. of several industrial orgns.; Founder Chmn., Steel Furnace Assn. of India; Ex-Chmn., Steel Re-Rolling Mills' Assn. of India; Mem.: Janata Party Wkg. Cttee., Cttee of FICCI, New Delhi; M.P., Lok Sabha, 1967-70; Rajya Sabha, 1975-81. *Address:* Mukand Iron & Steel Works Ltd., Bajaj Bhavan, 3rd Flr., 226, Nariman Point, Bombay 400021.

SHAHANEY, Ram Javhermal, B.Sc. (Engg.) (Univ. of Lond.), ACGI (Univ. of Lond.), Chmn. & Mg. Dir., Ashok Leyland Ltd., Madras. *b.* Oct. 29, 1930. Joined Jessop & Co. Ltd., 1953; Dir., 1968; Mg. Dir., 1972; Chmn. & Mg. Dir., 1975. *Address:* C/o Ashok Leyland Ltd., 19, Rajaji Salai, Madras 600001.

SHANKAR, Ravi, Presidential Award (1962 & 1980), Hon. Doctor of Fine Arts (California Univ.) (1968), Hon. Doctor of Music, Indira Kala Sangit Viswavidyalaya (1972), Hon. Doctorate, Viswa Bharati (1973); Intnl. Music Council UNESCO Award (1975); Fellow, Sangeet Natak Akademi (1976), Hon. Doctorate, B.H.U. (1980). Musician. *b.* April 7, 1920. Began his career in the company of Uday Shankar; later devoted himself to sitar with Ustad Allaudin Khan of Maihar, 1938-44; joined IPTA and composed music for several ballets, 1945-46; Dir. of Music, A.I.R., 1949-55; participated in the 10th Anniversary celebration of the U.N. & UNESCO's music festival in Paris, 1958; first Indian musician to write music for foreign films; has concertised widely in Europe, U.S.A. & Australia, since 1961; wrote & conducted orchestral music for a ballet set to Nehru's *Discovery of India* and its revised version, 1948; opened the Kinnara School of Music in Los Angeles, May 1967; head of Indian music section, California Instt. of Arts, Oct. 1970; won Silver Bear for score and Venice Festival Award; Concerto for Sitar commissioned by London Symphony Orchestra, 1971; Mem., Intnl. Music Council; Pres., Shankar's Foundation of Creative Arts; composed and conducted Festival of Indian Music with top Indian musicians in Europe & America, 1969 & 1974. *Address:* C/o Research Institute for Music and Performing Arts, Hemangana, S. 13/131, Tarana Bazar, Shivpur, Varanasi.

SHANKARANAND, B., B.A. (Hons.), LL.B., Minister for Health & Family Welfare, Govt. of India, since Oct. 19, 1980. *b.* Oct. 19, 1925. Parliamentarian and social worker; has been active for the uplift of the downtrodden and backward classes;, Gen. Secy., Cong. Party in Parliament, 1969-71; Mem., A.I.C.C., since 1968; elected to Lok Sabha, 1967, 1971, 1977 and 1980; Dy. Min., Deptt. of Parly. Affairs, 1971-77; Cabinet Min. in charge of Edn., Health & Social Welfare, Jan. 14 to Oct. 18, 1980; Mem., Wkg. Cttee., A.I.C.C. (I). *Address:* Nirman Bhavan, New Delhi 110011.

SHANTARAM, Dr. V., leading Film Producer, Dir. & Actor. *b.* Nov. 18, 1901. Chmn., Children's Film Socy. India; of jury, 28th National Film Awards of India, 1981, Associated with film industry from 1920; Founder Mem., Prabhat Film Co., Pune; recipient of National & Intnl. Awards for best picture, best direction, best techniques, etc.; conferred degree of Dr. of Literature by Nagpur Univ., 1980; was Chief Producer, Govt. Films Divn.; his film "Two Eyes Twelve Hands" won the "Gold Bear" of the Intnl. Film Festival, Berlin, The Hollywood Foreign Press' Samuel Goldwyn Award for the "Best Picture" and a plaque by the Catholic Film Bureau, Brussels for the "best human document". *Address:* Rajkamal Kalamandir (Pvt.) Ltd., Parel, Bombay 400012.

SHARMA, Anant Prasad, Governor of West Bengal, Since Oct. 7, 1983. Was Minister of Communications, Govt. of India, Sept. 1982 to Feb. 1983. Minister of Tourism & Civil Aviation, Govt. of India, Oct. 19, 1980 to Sept. 1, 1982; Minister for Shipping & Transport, Govt. of India, Jan. 14, 1980 to Oct. 1980. *b.* Dec. 25, 1919. M.P., Lok Sabha, 1962-67, 1971, 1980; M.P., Rajya Sabha, 1968-71; Dy. Ldr., Congress Party in Lok Sabha, 1973, 1974; Min. of State for Industry & Civil Supplies, 1974-76; Governor of Punjab, Feb. 1983-Oct. 1983. *Address:* Raj Bhavan, Calcutta 700062.

SHARMA, Sq. Ld. Rakesh, first Indian astronaut selected as research member of the Indo-Soviet Cosmonaut team for an eight-day space mission launched in April, 1984. *b.* Jan. 13, 1949. Joined as cadet at the National Defence Academy, Khadakvasla in 1966; commissioned into Indian Air Force in Jan. 1970, flew 21 missions in MIG-21 in the 1971 Indo-Pakistani conflict. Completed Experimental Test Pilots course at Aircraft and Systems Testing Establishment, Bangalore. Credited with 1600 hours of flying experience in several types of aircraft including MIG variants HS-748, Canberra, Hunter, Caribou, Iskara, Kiran, Ajeet, Marut and HPT-32. Awarded Ashoka Chakra as well as the top Soviet award of the 'Order of Lenin' and the 'Gold Star' medal, all in 1984.

SHIV SHANKAR, Punjala, B.A. (Hons.), LL.B., Minister for Energy, Govt. of India, since Sept. 2, 1982. Was Min. for Law, Justice & Company Affairs, Petroleum, Chemicals and Fertilizers, Govt. of India. *b.* Aug. 10, 1929. Mem. & Vice-Chmn., Bar Council of A.P., 1965; Govt. Pleader, A.P. High Court, 1969-72; Judge, A. P. High Court, Oct. 1974 to June 23, 1975; was Sr. Advocate, Supreme Court; elected to Lok Sabha, 1979. *Address:* 7, Race Course Rd., New Delhi 110011.

SIDDIQUI, Dr. Obaid, prof. of molecular biology at TIFR. Elected Fellow of Royal Society; Vice-pres. of Indian Academy of Sc.s, Fellow of Indian Nat. Sc. Academy and mem. of Sci. Adv. Cttee. to the Cabinet; Bhatnagar Award in 1976. Visiting prof. of biology at M.I.T. and Sherman Fairchild Distinguished Scholar at California Inst. of Tech.; made important contributions in the field of molecular biology, genetics and neurobiology and one of early discoverers of suppressors of "non-sense mutations", a phenomenon which led to the elucidation of stop signals in the genetic code. *Address:* Molecular Biology Unit, Tata Institute of Fundamental Research, Homi Bhabha Road, Colaba, Bombay 400005.

SIDHU, Gurbachan Singh, B.Sc. (Hons.), M.Sc., Ph.D., Dir.-General, C.S.I.R. and Secy. to the Govt. of India for CSIR affairs, Deptt. of Science & Technology, since May 5, 1981. *b.* July 4, 1920. Dir., Regnl. Research Lab., Hyderabad, 1963-80; Chmn., National Research Devpt. Corpn., 1981-83; Padma Shri (1976), K. G. Naik Gold Medal (1966), Fedn. of Indian Chambers of Comm. & Ind. Award (1975). *Address:* C.S.I.R., 2, Rafi Marg, New Delhi 110001.

SINGH, Arjun, B.A., LL.B., Chief Minister, Madhya Pradesh, since June 9, 1980. *b.* Nov. 5, 1930. Elected to M.P. Vidhan Sabha as independent candidate, 1957; joined Congress, 1960; again elected on Congress ticket, 1962; Min. of State for Agri., 1963-67; Min. for Planning & Devpt., 1967; Mem., Indian delegation to the U.N., 1969; represented India at the U.N. Seminar on Human Rights, Belgrade, 1970; re-elected to Vidhan Sabha, 1972 and became Min. for Edn.; Leader of Opposition during Janata regime, July 1977 to Feb. 1980. *Address:* 6, Shamala Hill, Bhopal.

SINGH, Chandreshwar Prasad Narayan, M.A. (Calcutta Univ.), Padma Vibhushan (1977); Educationist, Admnr. and Interpreter of Indian Culture; Governor of Uttar Pradesh since Feb. 28, 1980. *b.* Apr. 18, 1901. Vice-Chancellor, United Patna Univ., 1945; Amb. to Nepal; Governor of Punjab, 1953; Amb. to Japan, 1958; was Dir., Reserve Bank of India, I.D.B.I. & Chmn. of several companies. *Address:* Raj Bhavan, Lucknow 227132.

SINGH, Kamaljit, B.A., Civil Ekonom. (Stockholm), Vice-Chmn., Wimco Ltd. Chmn., Vulcan-Laval Ltd., since Mar. 12, 1974. *b.* Feb. 2, 1930. Joined Swedish Match Group in India, 1955; Mg. Dir., Vulcan-Laval Ltd., Nov. 1963. *Address:* C/o Wimco Ltd., Indian Mercantile Chambers, Ramjibhai Kamani Marg, B. Estate, Bombay 400038.

SINGH, Dr. Manmohan, Eminent Economist & Governor, Reserve Bank of India, since Sept. 16, 1982. *b.* Sept. 1932. Prof. of Economics, Punjab Univ. till 1966; became Economic Affairs Officer & Later Chief of Financing for Trade Section, UNCTAD; Prof. of Intnl. Trade, Delhi School of Economics, 1969-71; Economic Adviser, Min. of Foreign Trade, Govt. of India, 1971; Chief Economic Adviser, 1972-76; Secy., Deptt. of Economic Affairs, Min. of Finance, Nov. 1976 to Apr. 1980; was Mem.-Secy., Planning Commission, until recently. *Address:* Reserve Bank of India, S. Bhagat Singh Rd., Bombay 400023.

SINGH, Thakur Vishva Narain, M.A. (1953), Diploma in Journalism (1955), Sahityaratna (1953). Braille Editor. *b.* July 30, 1928. Participated in the Quit India Movement, Hyderabad Police Action and Goa Liberation Movement; First Braille Editor of India; acknowledged as Father of Braille Literature and Journalism in India, 1957; Editor, *Nayanrashmi* and *Shishu Alok* (Braille journals); Recd. Hon. Degree of Patrakar Shiromani Nagri Pracharni Sabha, W.B. (1976); Soviet Land Nehru Award (1977); honoured by U. P. Hindi Sahitya Sammelan for promotion of Hindi (1983). *Address:* Central Braille Press, Rajpur Mrg., Dehra Dun 248001.

SINGHANIA, Hari Shankar, B.Sc., Industrialist. *b.* June 20, 1933. Pres., J. K. Orgn.; Vice-Pres., Confederation of Asian Chambers of Commerce & Industry; Chmn.: J. K. Industries Ltd.; Straw Products Ltd.; Mg. Dir.: Straw Products Ltd.; Ex-Pres.: F.I.C.C.I.; Mem., All India Orgn. of Employers; Ind. Comm. Intnl. Cham. of Com.; Bd. of Ind. & Min. Resources, Madhya Pradesh, etc.; *Address:* J. K. Orgn., Nehru House, 4, Bahadur Shah Zafar Marg, N. Delhi 110002.

SINGHVI, Dr. Laxmi Mall, B.A. LL.B., LL.M., Harvard, Dr. of Sci. of Law, Cornell, Vachaspati *(Honoris Causa)*. *b.* Nov. 9, 1931. Pres., Supreme Court Bar Assn. since 1979; Sr. advocate, Supreme Court. Mem., Lok Sabha 1962-67; U.N. Human Rights Sub.-Cttee., founder & Hony. Chmn., Instt. of Constitutional & Parly. Studies, New Delhi; Chmn., Commonwealth Legal Ed. Assn. London; Nat. Fedn. of UNESCO Assns. in India; Samachar Bharati; Nat. Cttee. for Abolition of Death Penalty; U.N. special *Rapporteur* on Independence of Judges and Lawyers; Pres., Centre for Independence of Lawyers and Judges; Ind. Nat. Centre for Human Rights Res. and Trg., Tagore Law Prof., Calcutta Univ., 1980; Hon. Prof. Delhi and Andhra Univs. *Address:* B-8, NDSE II, New Delhi-110049.

SIVAJI GANESAN (See GANESAN, Sivaji).

SIVARAMAKRISHNAYYA, Yellapantula Venkata, B. Com. (Hons.), C.A.I.I.B. Chmn. & Mg. Dir.: Bank of Baroda since Apr. 7, 1982. Was in R.B.I. 1946-64; joined Bank of Baroda, 1964; as Asst. Gen. Mgr., Bank of Baroda, 1971-81; Exec. Dir., Bank of Baroda, 1981; Dir.: Agri. Fin. Corpn. Ltd., I.B.U. Intnl. Fin. Ltd., Hongkong; Mem.: Adv. Council, Bankers' Trg. College, Indian Instt. of Bankers' Exam. Cttee., Mg. Cttee., Indian Banks Assn., Academic Adv. Cttee, Nat. Instt. of Bank Mgmt., Working Group, Ramanujam Cttee., Shiralkar's Cttee., Bhide Cttee., Baldev Singh Cttee., Study Group, Tandon Cttee. *Address:* 3, Walchand Hirachand Marg, Bombay 400038.

SIVASAILAM, A., B.Com., F.B.I.M., F. Inst. SM, UK; Businessman; Chairman: Amalgamations Ltd., Madras (Simpson Group of Companies) and Chmn. & Mg. Dir., Tractors and Farm Equipment Ltd., Madras. *b.* Aug. 24, 1934. Ex-Pres., Associated Chambers of Commerce & Ind. of India; Chmn., Bd. of Governors, Indian Instt. of Technology, Madras; Mem., Development Council for Automobiles, several State and Central Govt. Boards; Vice-Pres., Madras Kendra, Bharatiya Vidya Bhavan; Ex-Chmn., Madras Chamber of Commerce & Ind.; Sheriff of Madras, 1969-70. *Address:* 861, Anna Salai, Madras 600002.

SOLANKI, Madhavsinh, B.A., LL.B., Chief Minister, Gujarat State, since 1980. *b.* July. 29, 1927. Lawyer and Politician; M.L.A., Gujarat, since 1957; Dy. Min., 1962; Minister of Revenue, 1973; Chief Min., 1976; Pres., Gujarat P.C.(I) C. and also Mem. of the Congress(I) Wkg. Cttee. for a number of years. *Address:* C.M.'s Bungalow, Gandhinagar 382010 (Gujarat).

SRIVASTAVA, J. K., B.Sc. Tech. (Manch.), A.M.C.T., A.T.I., Ex-M.L.A., Chmn., Sir J. P. Srivastava Group of Industries. *b.* Nov. 13, 1913. Pres., Upper India Chamber of Commerce, 1957-60; Vice-Pres., Employers' Fedn. of India; Mem.: State Plng. Board, U.P.; Export Promotion Adv. Council, Govt. of India; Indian Cotton Mills' Fedn.; Exec. Cttee, All India Board of Tech. Studies in Management; Bd. of Governors, National Safety Council, Govt. of India; U.P. Leg. Assembly, 1945-52; Cttee., Cotton Adv. Board, Govt. of India and numerous Govt. and Pvt. bodies; Chmn.: Northern Regnl. Cttee., Employers' Assn. of India; Governing Council, Northern India Textiles Research Assn. *Address:* Kailash, Nawabganj, Kanpur 208001.

SUBBULAKSHMI; Smt. Madurai Shanmugavadivu, Indian Classical & Carnatic musician; Ramon Magsaysay Award (1974); President's Award for Carnatic Music, 1956. *b.* Sept. 1916. Gave solo performance and became a leading musician before 18; her part as heroine in the Hindi film "Meera" won for her all India popularity; has given more than 100 benefit recitals in aid of many national, social and religious causes; represented Carnatic Music in the Edinburgh Intnl. Festival of Arts, 1963; also gave concerts in London, Frankfurt, Geneva and Cairo; special concert before U.N. Assembly on U.N. Day (Oct. 23, 1966) on invitation; 7-week concert tour in the U.S.A., Oct.-Nov. 1966; had private audience with Pope, Dec. 3, 1966; has performed at Carnegie Hall (N. York) and in Tokyo, Bangkok, H. Kong, Manila, Singapore etc.; first woman musician to be elected Pres. of the Madras Music Academy Cfce., 1968 ; recipient of Tamil Isai Sangha title 'Isai Perarignar', 1970; conferred on her: D. Litt. by Rabindra Bharati Univ., 1967; 'Doctor of Letters' by Shri Venkateswara Univ., 1971 and by Delhi Univ., 1973; Ramon Magsaysay Award, 1974; Padma Vibhushan, 1975; 'Doctor of Letters' by Banaras Hindu Univ., D. Litt. by Indira Kala Sangit Vishwavidyalaya, M.P., 1979; 'Desikotama' doctorate by Visvabharati Univ., 1981; elected 'Member d' honneur' for life by UNESCO Intnl. Music Council. *Address:* 4, Tank Rd., Nungambakkam, Madras 600034.

SUMATI MORARJEE, Smt. is a leading shipping magnate and only lady in this field. *b.* March 13, 1909. Chairman: Scindia Steam Navigation Co. Ltd.; Eastern Bunkerers Ltd.; Indian Coastal Conference; Narottam Morarjee Instt. of Shipping; Scindia Workshop (I); India Lloyds Cttee.; Vice-Chmn., Maritime Law Assn. of India; Titulary Mem. of the Comite Maritime International (CMI), Antwerp, Belgium; Life Mem., World Wild Life Fund; Mem., Board of Trade; Board of Governors, World Maritime Univ., Malmo, Sweden; Dir. & Rep.: Gen. Council of the intnl. Shipping Fed.; represents Indian National Cttee. of I.C.C. on Surface Transport; Ex-President, Indian National Shipowners' Assn.; Mg. Trustee, Central Relief Fund; Sumati Morarjee Foundn.; Vice-Pres., Nathadwara Temple Board; Ex-Member, National Shipping Board; Padma Vibhushan, NIF-Escorts Award, "Lady of the Year 1975". *Address:* Palm Bun, Gandhigram, Juhu, Bombay 400054.

SUNDARAM, K., Industrialist; Mg. Dir., Lakshmi Mills Co. Ltd., Coimbatore; Dir.: Lakshmi Card Clothing Mfg. Co. Pvt. Ltd., Palladam; Ex-Chmn., Indian Cotton Mills Fedn., Bombay; Pres., Indian Chamber of Commerce and Industry; CBE; Chmn., SITRA, Coimbatore; Mg. Trustee, Kuppuswamy Naidu Charity Trust & Memorial Hosp.; Chmn., Bhavan's Kendra, Coimbatore. *Address:* Lakshmi Mills Co. Ltd., Pappanaickenpalayam, Coimbatore 641037.

SWAMINATHAN, Dr. Monkombu Sambasivan, Ph.D. (Camb.), D.Sc. Dir.-Gen., Intnl. Rice Research Inst., Philippines. *b.* Aug. 7, 1925. Asst. Botanist, Central Rice Res. Inst., Cuttack, 1954; Asst. Cytogeneticist, IARI, 1954-56; Cytogeneticist 1956-61; Head, Botany Divn. 1961-66; Dir. IARI, 1966-72; Fellow, Royal Socy., London, U.S. Nat. Acad. of Sci.s, Swedish Seed Assn., Ind. Nat. Sci, Acad., Ind. Acad. of Sci.s, Foreign Mem., Lenin Acad. of Agril. Sci. s, well-known for introducing dwarf wheat into India & initiating high-yielding varieties programme; Pres. Ind. Sci. Cong. Assn., 1976; Vice-Pres., Protein Adv. Group of U.N.; Secy., Agril. & Rural Devpt.., Govt. of India, 1979-80; Mem., Plng. Commn., Govt. of India, 1980-81. Received Shanti Swarup Bhatnagar Award, 1961, Mondel Memorial Award, 1965, Birbal Sahani Medal, 1965; Ramon Magsaysay Award for Community Leadership, 1971, Third World Prize, 1982; Ind. Nat. Sci. Acad. Silver Jubilee Award; Barclay Medal of Asiatic Socy. *Address:* International Rice Research Institute, Los Banos, Laguna, Philippines.

TALAULICAR, Jaivant Esvonta, B.A. (Hons.), B.Sc. (Econ.) (Lond. School of Economics), Industrialist. *b.* Sept. 26, 1929. Vice-Chmn. Mg. Dir.: Tata Engg. & Locomotive Co. Ltd.; Chmn.: Tata Precision Inds. Pvt. Ltd. (Singapore), Tata Engg. Services (PTE) Ltd., Singapore; Dir.: Tata Inds. Ltd., Tata Elxsi (Pte) Ltd., Singapore, Tata Aircraft Ltd.; Mem. of Bd., Tata Mgmt. Trg. Centre; Mem., Exec. Cttee., Association of Indian Automobile Mfgrs. *Address: Office:* Bombay House, 24, Homi Mody St., Bombay 400023. *Res.:* 202, Silver Arch, 66-A, L. Jagmohandas Marg., Bombay 400006.

TALEYARKHAN, Homi J. H., B.A. (Bombay, Ambassador to Italy since April 1984, was Governor of Sikkim, Jan. 1981-Mar. 1984; Pres., Intnl. Tourism Council. *b.* Feb. 9, 1917. M.L.A.; Min. for Health & Family Plng., Food, Civil Supplies, Housing, Tourism, etc., Maharashtra, 1952-67; Amb. of India to Libya, 1971-77; Mem., A.I.C.C.; Vice-Pres., BPCC; was Dir., Shipping Corpn. of India; Ex-Pres., Indian Council of Foreign Trade, etc.; was Chmn., Mah. State Finance Corpn., National Savings Reorganisation Commn. *Address.* Embassy of India, Via Venti Settembre 5, Rome.

TALWAR, Dr. Gursaran Prashad, M.Sc. (Tech.), D.Sc.; Fellow, Ind. Academy of Medical Scs., Ind. College of Allergy and Applied Immunology and Ind. Nat. Sci. Academy; Scientist; Hony. Dir., Nat. Instt. of Immunology, AIIMS, New Delhi. *b.* Oct. 2, 1926. Chmn., ICMR—Task Force on Immunological Approaches for Control of Fertility; Expert, WHO panel in Immunology; Pres., Endoctrine Socy. of India, 1978; Ind. College of Allergy and Applied Immunology, 1979; Exec. Mem., Intnl. Cttee. on Contraceptive Res.; Mem., Ciba Foundation, Sci. Adv. Cttee.; ICMR Sci. Adv. Bd.; ICSU-INSA-Ind. Nat. Cttee. for Immunology; ICSU-UNESCO Cttee. on Safeguards for Pursuit of Sci., Intnl. Brain Res. Orgn., Intnl. Coordination Cttee. for Immunology; Intnl. Union of Immunological Scs.; Nat. Award in Bio-Medicine, 1969-70; Basanti Devi Amir Chand Sr. Prize of I.C.M.R., 1972; Dr. P. N. Raju Oration Award of I.C.M.R., 1973, Alexander Von Humboldt Foundation Medal, 1977, FICCI Award, 1977, Jawaharlal Nehru Fellow, 1979-81, R. D. Birla Smarak Kosh Award, 1982; Fogarty Intnl. Senior Scholar-in-Residence Fellowship Award at the Nat. Instt. of Health, Bethesda, U.S.A., 1982-85. *Address:* National Institute of Immunology, Post Box No. 4922, New Delhi.

TARNEJA, Dr. Ram S., B.A. (Hons.) (Delhi), M.A., Delhi & Virginia, Ph.D. (Cornell), awarded Fellowship of the Indian Instt. of Personnel Management, 1973; Managing Director, Bennett, Coleman & Co. Ltd., (Proprietors of the Times of India and Allied Publications), since May 1, 1981; associated with this company since March 1970. *b.* Dec. 7, 1931, at Karachi. Gold Medalist. Research Asstt., Univ. of Virginia, 1953-55; Graduate Research Asstt., Cornell Univ., 1955-57; Asstt. Prof. of Management, Duquesne Univ., 1957-60; Dir., Graduate Dept. of Business Admn., Duquesne, 1958-61; Assoc. Prof. of Management, Duquesne Univ., 1960; Director of Personnel, Sahu Jain Group of Industries, Calcutta, 1961-70; Past Pres.: All India Management Assn.; Patna Management Assn.; Mem.: Acad. of Management; All India Board of Tech. Studies in Management; Council Mem.: All India Management Assn.; Mem.: Bd. of Directors, United News of India; Arim Metal Industries Pvt. Ltd.; Arim Tyres Pvt. Ltd.; Welcast Steels Ltd.; Indian & Eastern Newspaper Socy.; Audit Bureau of Circulations Ltd.; New Standard Engg. Co. Ltd.; Ceekay Automotive Products Ltd.; Otis Elevators (India) Ltd.; Anil Hardboards Ltd.; Bharat Gears Ltd.; Tarneja Farming Pvt. Ltd.; Transport Corpn. of India; Indrama Pvt. Ltd.; Nepa Mills; Dharmayug Investments Ltd.; Indian Merchants' Chamber; Fellow, Instt. of Directors, London, National Instt. of Personnel Mgmt. and All India Mgmt. Asscn. *Address: Res.:* 3-C, Woodlands, 67, Pedder Rd., Bombay 400026; *Office:* The Times of India, Dr. D. Naoroji Rd., Bombay 400001

TATA, Darab Ratanji Dadabhoy, Industrialist. *b.* Paris, Feb. 26, 1912. Trustee: Sir Dorabji Tata Trust, Lady Tata Memorial Trust. *Address: Res.:* Taj Mahal Hotel, Bombay 400039. *Office:* Bombay House, Homi Mody St., Bombay 400023.

TATA, Jehangir Ratanji Dadabhoy, D.Sc. (Hon. Causa) (Allahabad Univ.) (1947), Doctor of Laws (Hon. Causa) (Bombay Univ.) (1981), Hon. Air Vice-Marshal, I.A.F., Officer of the Legion of Honour, Paris, France (1954), Knight Commander of the Order of St. Gregory the Great (1964). Industrialist. *b.* July 29, 1904, in Paris. Chmn.: Tata Sons Ltd., Tata Iron & Steel Co. Ltd., Indian Hotels Co. Ltd., Tata Burroughs Ltd., Tata Ltd., London, Tata Inc., New York, Tata Intnl. A. G., Zug, Tata Instt. of Fundamental Research, National Centre for the Performing Arts, Mg. Council, Homi Bhabha Fellowships Council. Family Plng. Foundn.; Dir.: Tata Engg. & Loco. Co. Ltd., Air India; Pres., Court of the Indian Instt. of Science, Bangalore, Tata Sports Club, Aero Club of India; Chmn.: Sir Dorabji Tata Trust, J. N. Tata Endowment, Tata Energy Research Instt.; Trustee: Gandhi Smarak Nidhi and Kasturba Gandhi National Memorial Trust, Jawaharlal Nehru Memorial Fund; Mem.: National Council of Applied Economic Research (General Body), Atomic Energy Commn., National Integration Council, Govng. Council & Exec. Cttee., Rajaji Instt. of Public Affairs & Admn.; first pilot to qualify in India holding a private licence from 1929-75; Solo flight India-England, 1930; founded Tata Airlines, 1932 and piloted inaugural service Karachi-Bombay, Oct. 1932,; Chmn., Air India Ltd., 1946; solo flight Karachi-Bombay in Leopard Moth to commemorate 30th anniversary of Air India, 1962; Karachi-Bombay flight in Leopard Moth to commemorate Golden Jubilee of Indian Civil Aviation, 1982. *Address: Office:* Bombay House, 24 Homi Mody St., Bombay 400023; *Res.:* The Cairn, Altamount Rd., Bombay 400026.

TATA, Naval Hormusji, B.A., Industrialist. *b.* Aug. 30, 1904, Bombay. Chmn.: Tata Mills Ltd., Tata Electric Companies, Oriental Hotels Ltd., Indian Cancer Socy.; Dy. Chmn.: Tata Group of Companies; Dir.: Tata Exports Ltd., Telco Ltd., Tata Exports, Indian Hotels Co. Ltd.; Pres.: Employers' Fedn. of India; Trustee: Sir Dorabji Tata Trust, Sir Ratan Tata Trust, etc.; Mem.; Indian Cotton Mills Fedn., Governing Body, I.L.O., Geneva; Vice-Chmn.: Intnl. Orgn. of Employers, Geneva; Padma Bhushan, 1969; Sir Jehangir Ghandy Medal, 1969. *Address: Res.:* Tata House, Waudby Rd., Fort, Bombay 400001; *Office:* Bombay House, 24, Homi Mody St., Bombay 400023.

TATA, Ratan Naval, B.Sc., Industrialist; Dir-in-Charge, National Radio & Electronics Co. Ltd. *b.* Dec. 28, 1937. Chmn.: Central India Spg., Wvg. & Mfg. Co. Ltd.; Tata Industries Ltd., Tata Aircraft Ltd., C.B.S. Gramophone Records & Tapes Ltd., Tata Elxsi (Pte.) Ltd., Singapore; Dir.: Tata Sons Ltd., Tata Iron & Steel Co. Ltd., Bombay Dyeing and Manufg. Co. Ltd., Ahmedabad Advance Mills Ltd., Tata-McGraw-Hill Publishing Co. Ltd., Indian Resort Hotels Ltd., Andhra Valley Power Supply Co. Ltd., Tata Engg. & Loco Co. Ltd., Tata Fert. Ltd., Ewart Investments Ltd., Tata Ltd., London, Tata Intnl. A. G., Zug, Switzerland, Elxsi Intnl., California, U.S.A.; Trustee: J. N. Tata Memorial Trust, Sir Ratan Tata Trust, etc. *Address:* Bakhtavar, Flat No. 13, Lower Colaba Rd., Bombay 400005.

THIRANI, Sushil Kumar, Industrialist; Chmn. & Mg. Dir.: Kores (India) Ltd., since 1966. *b.* Oct. 20, 1930. Joined the Board of Directors, Kores (India) Ltd., after Indianisation. *Address:* Kores (India) Ltd., P.O. Box 6558, Plot No. 10, Off Dr. E. Moses Rd., Worli, Bombay 400018.

TILAKARATNA, H.E. Mr. Bernard, B.A., High Commr. for Sri Lanka to India; concurrently Amb. to Nepal. *b.* Dec. 8, 1926. Diplomatic service, May 1951; worked in Rangoon, Djakarta, Bombay, Paris, Moscow, New Delhi, Rio de Janeiro and U. N., New York; Amb. to Japan; concurrently Amb. to Manila and Seoul; Dir.-Genl., Min. of Foreign Affairs. *Address:* High Commn. of Sri Lanka, 27, Kautilya Mrg., Chanakyapuri, New Delhi 110021.

TIWARI, Narayan Datt. M.A., LLB., Chief Minister, Uttar Pradesh since Aug. 1984, was Minister for Industry, Govt. of India, Aug. 1981-Aug. 1984. *b.* Oct. 18, 1925. Political and social worker; Min. for Plng., Lab. & Panchayats, 1969; Min. for Finance & Parly. Affairs, U.P., 1970, 1971-73 & 1973-77; also held portfolios of Plng., Ind., Irr. & Power, Labour, etc. from time to time; Chief Minister, U.P., Jan. 1976 to Apr. 1977; M.L.A., U.P.' 1952-62 & 1969 to Jan. 1980; Dy. Leader of the Oppositon, 1957-62; Leader of the Opposition, July 1977 to Mar. 1978; Oct. 1978 to Oct. 1979; was Min. for Planning & Dy. Chmn., Planning Commission, Govt. of India, June 1980 to Aug. 1981; held addl. charge of Min. of Labour, Oct. 1980 to Jan. 1982; Min. of Ind. since Aug. 1981 with addl. charge of Min. of steel and Mines from Jan. 1982 to Feb. 1983. *Address:* Udyog Bhavan, New Delhi 110011.

TOBACCOWALA, Akhtarali, B.A., M.A., LL.B. (Bombay Univ.). M.B.A. (Chicago Univ.), Industrialist. *b.* January 17, 1925. Chmn.. Voltas Ltd., Voltas Intnl. Ltd., Volrho Ltd., OMC Computers Ltd., Communication & Power Equipment Co. Ltd., Dir.: Tata Industries Ltd., Merck Sharp & Dohme of India Ltd., Tata Projects Ltd., Tata Sons Ltd., Virat Investment Co. Ltd., Metrovol Ltd. (Sharjah, U.A.E.), Ensas (Pte) Ltd., Singapore, Walkers Piling Ltd., Colombo. *Address: Office:* 19, J. N. Heredia Marg, Ballard Estate, Bombay 400038.

TODI, Sanwarmal Bhagwandas, Industrialist. *b.* July 13, 1925. Chmn.: Hathising Mfg. Co. Ltd.: Dir., Todi Ind. Pvt. Ltd., Todi Woollen Mills Ltd., Crop Devpt. Pvt. Ltd., etc.; Chmn., All India Mfrs. Assocn.; Ex-Pres., All India Rope Mfrs. Assn., Marwadi Sammelan; Trustee, Marine Drive Citizens' Assn.; Trustee & Founder Mem., Bhagwandas Todi Charitable Trust; Wkg. Cttee. Mem., AIMO, DGS & D, Central Purchase Adv. Council, Central P. & T. Adv. Council, etc.; Partner, Todi & Co., Todi Udyog, G.T.N. Textiles, Alwaye. *Address: Office:* Todi Estate, Lower Parel, Bombay 400013; *Res.:* Vishwa Mahal, C. Rd., Churchgate, Bombay 400020.

TULZAPURKAR, Mr. Justice Vidyaranya Dattatraya, B.A., LL.B., Attorney-at-Law; Judge, Supreme Court of India, since Sept. 30, 1977; Advocate, Bombay High Court, Dec. 1, 1942; Judge, City Civil Court and Addl. Sessions Judge, Bombay, July 16, 1956; Principal Judge, Apr. 19, 1962; Addl. Judge, Bombay High Court, Dec. 21, 1963; Permanent Judge, Sept. 22, 1966. *Address:* 11, Tughlak Rd., New Delhi 110011.

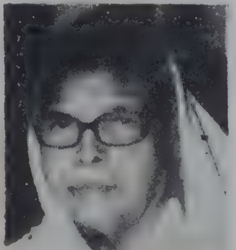
VAIDYA, Gen. Arun Shridhar, PVSM, MVC, AVSM, ADC., Chief of the Army Staff, since August 1, 1983. *b.* Jan. 27, 1926. Commissioned in to the then Royal Deccan Horse (now the Deccan Horse), Jan. 20, 1945; participated in Hyderabad Police Action, 1948; Brigade Major of 70 Infantry Brigade in Ladakh, 1962; has served as Brigadier General Staff, GOC 1 Armoured Dn.; Dir., Military Operations; Chief of Staff, HQ., Southern Command; Commandant, Armoured Corps Centre & School; Master General of Ordinance, etc.; GOC-in-C, Eastern Command, May 31, 1981; has the distinction of being the most decorated soldier in the Defence Services of the country since independence; also Principal Hon. Army ADC to the President. *Address:* Army Hqrs., New Delhi 110011.

VAJPAYEE, Atal Bihari, M.A., M.P. (Lok Sabha), Pres., Bhartiya Janata Party, 1980. Journalist. *b.* Dec. 25, 1926. Founder-Mem., Jan Sangh; Pres., Bharatiya Jan Sangh, 1968-73; elected to Lok Sabha from U.P., 1957 & 1967 and from M.P., 1971; Rajya Sabha, 1962; detained, June 26, 1975; elected to Lok Sabha from N. Delhi, 1977 & 1980; Mem.: Parly. delegation to the Commonwealth Parly. Cfce., Canada, 1966 and Zambia, 1980; Inter Parly. Cfce., Tokyo, 1974; Minister for External Affairs, 1977-79. Ex-Editor.: *Rashtradharma, Panchajanya* and *Veer Arjun* Publications *Amar Balidani, Mrityu Ya Hatia etc. Address:* 6, Raisina Rd., New Delhi 110001.

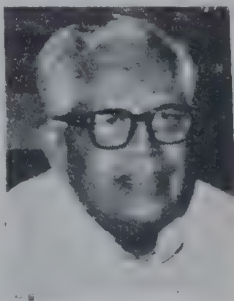
VAKIL, Shiavax Ratanshaw, Advocate, Supreme Court, Attorney-at-Law & Notary. *b.* July 9, 1917. Dir.: Tata Engg. & Locomotive Co. Ltd., A.C.C., Bombay Dyeing & Mfg. Co. Ltd., Tata Power Co. Ltd., Swadeshi Mills Co. Ltd., Ahmedabad Advance Mills Ltd., Herdillia Chemicals Ltd., Pennwalt India Ltd., Tata Inds. Ltd., Gokak Patel and Volkart Ltd., etc.: Trustee: Maneckji Cooper Education Trust, Ness Wadia Foundation, Sir Ratan Tata Trust, Hirabai Tata Trust, The Jayprakash Institute of Human Freedoms. *Address:* Bombay House, Homi Mody St., Bombay 400023.

VALLURI, Dr. Sitaram Rao, B.Sc. (Engg.), D.I.I.Sc. (Aeronautics), M.S. (Aeronautics), Ph.D. in Aeronautics; Dir., National Aeronautical Laboratory, since Nov. 1965. *b.* June 25, 1924. Research Fellow and Sr. Research Fellow, California Instt. of Technology, 1954-63; Sr. Prof., Indian Instt. of Tech., Madras, 1963-65. *Address:* National Aeronautical Laboratory, Post Bag No. 1779, Kodihalli, Bangalore 560017.

VARADARAJAN, Mr. Justice A., B.A., B.L., Judge, Supreme Court of India, since Dec. 1980. *b.* Aug. 17, 1920. Enrolled as advocate, Madras High Court, Aug. 1944; worked as Dist. Munsif, Subordinate Judge and Dist. Judge, 1949-71; was Presiding Officer, Labour Court, for a year and as an Industrial Tribunal for a short time; was judl. mem., Cttee. for the Examination of the Jurisdiction of Civil and Criminal Courts in T. Nadu; Judge, Madras High Court, 1973. *Address:* 6, Moti Lal Nehru Place, New Delhi 110011.



VARMA, Mrs. Mahadevi, outstanding poetess and litterateur in Hindi and one of the Nirala—Pant—Mahadevi trio of the symbolist school and representing *chhayabadi* or romantic mysticism in poetry. *b.* 1907 at Farrukhabad, U.P., M.A. in Sanskrit from Allahabad Univ. in 1933 and D. Litt. from Vikram Univ., Ujjain in 1979. Awarded Jnanpith Award for 1982 for collection of poems 'Yama', which includes earlier works 'Neehar', 'Rashmi', 'Neeraja', and 'Sandhya-Geet'. Earlier awarded Sakseria Prize for Neeraja' in 1934, Mangala Prasad Paritoshik in 1944, Padma Bhushan in 1956 and Bharat Bharati Puraskar in 1983. Has about 20 works to her credit including 'Deep-shikha'. Principal and later Vice-chancellor of Prayag Mahila Vidyapeeth, Allahabad; nominated member of U.P. Leg. Council for six years. Has 60 paintings on Bengal famine to her credit and illustrations on her own books. *Address:* 1, Elgin Road, Allahabad, U.P.



VENKATARAMAN, R., M.A., B.L., Vice-President of India, since Aug. 31, 1984. *b.* Dec. 4, 1910. Advocate, Madras High Court and Supreme Court; elected to the Lok Sabha 1952-57 and since 1977; Mem., Planning Comm., 1967-71; Min. for Finance, 1980-82; Min. for Defence, 1982-84; winner of *Soviet Land* Nehru Prize for travelogue on Kamaraj's visit to Russia; was Mg. Editor, *Labour Law Journal. Address:* 6, Maulana Azad, Road, New Delhi 110011.

VENKATARAMIAH, Mr. Justice Engalaguppe Seetharamiah, B.A., LL.B., Judge, Supreme Court of India, since March 8, 1979. *b.* Dec. 18, 1924. Enrolled as Advocate, Mysore High Court, Jan. 5, 1948; Spl. Govt. Pleader, Govt. of Mysore, June 2, 1966 to June 4, 1969; Govt. Advocate, June 5, 1969 to March 4, 1970; Advocate. General, Mysore, Mar. 5, 1970 to June 25, 1970; Addl. Judge, High Court of Karnataka, June 25, 1970; Permanent Judge, Nov. 20, 1970. *Address:* 4, Tughlak Rd., New Delhi 110011.

VERGHESE, Boobli George, B.A., Editor, *Indian Express* since June 1982; Gandhi Peace Foundation Fellow in rural development. Editor, "Voluntary Action", 1977-82; Chmn., Media Foundn.; Editorial Adviser, "Commerce" (1976); Editor. *Hindustan Times*, 1969-75 (Sept.), *b.* June 21, 1927. Special Corspdt. and Asstt. Editor, *The Times of India*, 1949-66; Information Adviser to the

Prime Minister, 1966-68; Ramon Magsaysay Award for journalism, 1975; Chmn.: Working Group on Autonomy for *Akashwani* and *Doordarshan*. 1977-78; Mem.: UNESCO Commission on Communication Policy, 1978-79. *Address:* C-11, Dewan Shree, 30, Ferozshah Rd., New Delhi 110001.

VERMA, Inderpal Singh, B.Sc. (Agri.), Ph.D. (Wisconsin); Dir., National Dairy Res. Instt., Karnal, since 1981. *b.* May 5, 1925. *Address:* National Dairy Research Institute, Karnal, Haryana 132001.

VERMA, V. K., Chartered Accountant (F.C.A.), B.A. Com. (Hons.); Diploma in Business Mgmt. (Delhi Univ.) with long professional experience in Taxation, Audit & Mgmt. Accounting; Fellow Mem., Corpn. of Secs., Lond.; Mem., Instt. of Company Secs. of India. *Address:* V. K. Verma & Co., C-37, Connaught Place, New Delhi 110001.

WADE-GERY, H.E. Sir Robert Lucian, KCMG (1983), British High Commr. to India, since July 1982. *b.* Apr. 22, 1929. Foreign Office, 1951; Third & Second Secy., Bonn, 1954; Foreign Office, 1957; First Secy., Tel Aviv, 1960; Foreign Office, 1964; Head of Chancery, Saigon, 1967; on loan to Bank of England, 1969; Foreign & Commonwealth Office, 1970; Cabinet Office, 1971; Minister, Madrid, 1973; Moscow, 1977; Cabinet Office, 1979-82. *Address:* British High Commission, Chanakyapuri, New Delhi 110021.

WADIA, Neville Ness, Chmn.: Nowrosjee Wadia & Sons (Private) Ltd.; National Peroxide Ltd.; Sturdia Chemicals Ltd.; Citurga Biochemicals Ltd.; Neville Wadia Pvt. Ltd. *b.* Aug. 22, 1911. *Address:* C/o Neville Wadia Pvt. Ltd.; *Office:* Neville House, Ballard Estate, Bombay 400038.

WADIA, Smt. Sophia, Editor, *The Aryan Path* (since 1930) and *The Indian P.E.N.*, since 1934, Bombay. *b.* Sept. 13, 1901. Associate of the United Lodge of Theosophists; Lecturer, Founder-Organiser of the P.E.N. All-India Centre; a Founder and Pres. of the Indian Instt. of World Culture, Bangalore; Chmn. & Mg. Trustee, Asian Book Trust; and worker in women's educl., social and cultural movements. *Address:* 40, New Marine Lines, Bombay 400020.

WAGLE, Nityanand Mangesh, M.A., M.Sc. (Econ.), I.C.S. (Retd.), Padma Bhushan, Chairman: Crompton Greaves Ltd.; Macmillan India; Paville Fashions Pvt. Ltd.; Albright Morarji & Pandit Ltd.; XLO India Ltd. *b.* Aug. 16, 1914. Entered I.C.S., 1938; served in the Dists. of Gujarat and in the Sectt. at Bombay; retired from the I.C.S. and joined Greaves Cotton & Co. Ltd., April 1947; Mg. Dir., Greaves Cotton & Co. Ltd., 1957-75; Vice-Chmn.: Bombay Dyg.; Glaxo Laboratories; Dir.: Greaves Cotton, Assoc. Bearing, WIMCO, Tata Hydro and other companies; Pres.: Bombay Chamber of Comm. & Ind., 1961 & 1968; Assoc. Chambers of Comm. & Ind., 1968-69. *Address:* 17-A, Carmichael Rd., Bombay 400026.

WARDEN, H.E. Mr. William Thomas, B.A., M.A., High Commissioner for Canada to India, since 1983. *b.* June 16, 1934. Joined Foreign Service, 1961; assignments in Moscow & Havana; Commr. to Hongkong, 1977; Amb. to Pakistan, 1981. *Address:* Canadian High Commission, 7/8, Shanti Path, Chanakyapuri, New Delhi 110021.

WARRIER, P. Krishnan Kutty, Managing Trustee, Arya Vaidya Sala, Kottakkal, since 1953. *b.* 1921 at Kottakkal. Has been with the Arya Vaidya Sala since 1947; is its Addl. Chief Physician; Mem., Exec. Cttee., Central Council of Indian Medicine; Ayurvedic Adv. Bd., Kerala. *Address:* Arya Vaidya Sala, Kottakkal 676503 (Kerala State).

YESUDAS (See Jesudas, k. Joseph).

GOVERNMENT OF INDIA PERSONNEL

(Corrected upto August 10, 1984. Further changes, if any, appear in "Late Particulars" at the end of the book.)

President: Giani Zail Singh.

President's Secretariat, Rashtrapati Bhavan, New Delhi 110004.

Secretary to the President, A. C. Bandyopadhyay; *Military Secy.*, Air Vice Marshal R. S. Naidu; *Press Secy.*, K. Suryanarayana.

Vice-President: R. Venkataraman.

CABINET MINISTERS

Prime Minister in charge of Atomic Energy, External Affairs, Space Science & Technology, Mrs. Indira Gandhi; *Finance*, Pranab Kumar Mukherjee; *Home Affairs*, P. V. Narasimha Rao, *Defence*, S. B Chavan; *Planning*, P. C. Sethi; *Railways*, A. B. A. Ghani Khan Choudhury; *Energy*, P. Shiv Shankar; *Chemicals and Fertilizers*, Vasant Sathe; *Industry*, Sripat Mishra; *Law, Justice and Company Affairs*, Jagannath Kaushal; *Labour and Rehabilitation*, Veerendra Patil; *Health and Family Welfare*, B. Shankaranand; *Agriculture*, Rao Birendra Singh; *Shipping & Transport*, K. Vijay Bhaskara Reddy; *Parliamentary Affairs and Sports, with additional charge of Works and Housing*, Buta Singh; *Irrigation*, P. C. Sethi.

Ministers of State (Independent Charge)

Education & Culture and Social Welfare, Mrs. Sheila Kaul; *Food & Civil Supplies*, Bhagwat Jha Azad; *Information & Broadcasting*, H. K. L. Bhagat; *Steel & Mines*, N. K. P. Salve; *Communications*, V. N. Gadgil; *Tourism & Civil Aviation*, Khursid Alam Khan; *Rural Development*, Mrs. Mohsina Kidwai.

Ministers of State

Science & Technology, Atomic Energy, Space, Electronics & Ocean Development, Shivraj V. Patil; *External Affairs*, A. A. Rahim, Ram Niwas Mirdha; *Industry*, S. B. P. Pattabhi Rama Rao; *Parliamentary Affairs*, H. K. L. Bhagat; *Shipping & Transport*, Z. R. Ansari; *Petroleum*, Gargi Shanker Mishra; *Agriculture*, Yogendra Makwana, *Irrigatin*, Harinath Mishra; *Commerce & Supply*, Nihar Ranjan Laskar; *Chemicals & Fertilisers*, Ramachandra Rath; *Railways*, C. K. Jaffer Sharief; *Coal*, Dalbir Singh; *Home Affairs*, Mrs. Ram Dulari Sinha; *Finance*, S. M. Krishna; *Defence*, K. P. Singh Deo; *Energy*, Arif Mohammad Khan; *Labour & Rehabilitation*, Dharam Vir; *Parliamentary Affairs*, Kalpanath Rai.

Deputy Ministers

Works & Housing, Mohammed Usman Arif; *Information & Broadcasting*, Ghulam Nabi Azad; *Sports*, Ashok Gehlot; *Health & Family Welfare*, Miss Kumudben M. Joshi; *Parliamentary Affairs, Sports, Works & Housing*, Mallikarjun; *Communications*, Vijay N. Patil; *Finance*, Janardhan Poojary; *Electronics*, Dr. M. L. Sanjeevi Rao; *Commerce*, P. A. Sangma; *Environment*, Digvijay Sinh; *Education & Culture and Social Welfare*, P. K. Thungon.

PRIME MINISTER'S OFFICE, New Delhi 110011.

Principal Secretary to the Prime Minister, Dr. P. C. Alexander; *Information Adviser*, H. Y. Sharda Prasad; *Sp. Secretary*, Dr. Arjun Kumar Sengupta; *Addl. Secy.*, G. K. Arora; *Adviser*, V. S. Tripathi; *Special Assistant*, R. K. Dhawan; *O. S. D.*, Usha Bhagat; *Director*, ' Wajahat Habibullah; *Sr. Petitions Officer*, M. L. Aseri.

CABINET SECRETARIAT, Rashtrapati Bhavan, New Delhi 110004.

Cabinet Secretary, C. R. Krishnaswamy Rao Sahib; *Sr. Adviser,* R. N. Kao; *Secy. (Co-ordn.),* S. Ramanathan; *Secy. (Projects),* R. S. Paramasivan; *Dir.,* G. C. Saxena; *Chairmen, J. I. C.,* P. P. Nayyar *(Internal),* S. M. Warty *(External), Addl. Secy.,* R. Venkatanarayan.

LOK SABHA SECRETARIAT, New Delhi 110001.

Speaker: Dr. Bal Ram Jakhar; *Dy. Speaker:* G. Lakshmanan; *Secretary-General,* Dr. Subhash C. Kashyap.

RAJYA SABHA SECRETARIAT, New Delhi 110001.

Chairman, Mohammad Hidayatullah; *Dy. Chmn.,* Shyam Lal Yadav, *Secy.-General,* Sudarshan Agarwal; *Addl. Secy.,* Smt. K. Chopra.

DEPARTMENT OF ATOMIC ENERGY, Chhatrapati Shivaji Maharaj Mrg., Bombay 400039.

Chairman, Atomic Energy Commission & Secy. to the Govt. of India, Dr. R. Ramanna; *Dir., Bhabha Atomic Research Centre,* Dr. P. K. Iyengar; *Addl. Secy.,* Y. S. Das; *Members, Atomic Energy Commn.,* P. K. Paul, Dr. P. C. Alexander, Prof. S. Dhawan, C. R. Krishnaswamy Rao Sahib, J. R. D. Tata; *Secy to the Commn., R. C. A. Jain.*

DEPARTMENT OF ELECTRONICS, Lok Nayak Bhavan, Near Khan Mkt., New Delhi 110003.

Minister, Smt. Indira Gandhi; *Ministers of State,* Shivraj V. Patil; *Dy. Minister & Chairman, Electronics Commission,* Dr. M. S. Sanjeevi Rao; *Secretary,* S. R. Vijaykar; *Secy. (Electronics Commn. & Ex-Officio Addl. Secy., Deptt. of Electronics),* Ashok Parthasarathi.

Electronics Commission, Lok Nayak Bhavan, 3rd Flr., Near Khan Market, New Delhi 110003.

Chmn., Dr. M. S. Sanjeevi Rao; *Members,* S. R. Vijaykar, S. K. Bhatnagar, Prof. S. Dhawan, R. Ganapati, S. K. Ghose, Prof. S. Sampath; *Secy.,* Ashok Parthasarathy; *Dir., Inf., Plng. & Analysis Group, E Wing, Pushpa Bhavan, Madangir Rd., New Delhi 110062.* Dr. N. Seshagiri.

DEPARTMENT OF PARLIAMENTARY AFFAIRS, 90, Parliament House, New Delhi 110001.

Minister, Buta Singh; *Ministers of State,* H. K. L. Bhagat, Kalpanath Rai; *Dy. Minister,* Mallikarjun; *Secretary,* Iswhari Prasad.

DEPARTMENT OF SCIENCE & TECHNOLOGY, Technology Bhavan, New Mehrauli Rd., New Delhi 110016.

Chmn., Scientific Advisory Cttee. to the Cabinet, Prof. M. G. K. Menon; *Secretary,* Dr. S. Varadarajan.

DEPARTMENT OF ENVIRONMENT, Bikaner House, Shahjahan Rd., New Delhi 110011.

Secretary, Dr. T. N. Khoshoo.

Council of Scientific & Industrial Research, Rafi Marg, New Delhi 110001.

Vice-Pres., C.S.I.R., Shivraj V. Patil; *Secy. to Govt. of India & Director-General, C.S.I.R.,* Dr. G. S. Sidhu.

DEPARTMENT OF SPACE, F Block, Cauvery Bhavan, Kempegowda Rd., Bangalore 560009. (Branch Sectt., Lok Nayak Bhavan, 3rd Flr., New Delhi 110003).

Secretary, Prof. S. Dhawan; *Addl. Secy.,* T. N. Seshan.

Space Commission & ISRO, *Chmn.,* Prof. S. Dhawan; *Secy., Space Commn. & Mem. (F & A), ISRO Council,* T. N. Seshan.

Indian Space Research Organisation (ISRO), F Block, Cauvery Bhavan, Kempegowda Rd., Bangalore 560009.

Chmn., Prof. S. Dhawan; **Vikram Sarabhai Space Centre (VSSC),** Post ISRO, Trivandrum 695022, *Dir.,* Dr. V. R. Gowariker; **Space Applications Centre (SAC),** Jodhpur Tekra, Ahmedabad 380053, *Dir.,* Prof. E. V. Chitnis; **SHAR Centre,** Sriharikota 524124 (Nellore Dist.—A.P.). *Dir.,* N. Pant; **ISRO Satellite Centre (ISAC),** A-1-6, Peenya Ind. Estate, Peenya, Bangalore 560058. *Dir.,* Prof. U. R. Rao.

DEPARTMENT OF SUPPLY, Nirman Bhavan, New Delhi 110011.

Minister of State, N. R. Laskar; *Secretary,* B. N. Sarup.

Directorate-General of Supplies and Disposals (Hqrs. Office), Jeevan Tara Bldg., Parliament St., New Delhi 110001.

Director-General of Supplies & Disposals, R. K. Singhal; *Addl. Director-Genl.,* S. P. Aggarwal; **Calcutta Office:** 6, Esplanade East, Calcutta 700069. **Bombay Office:** Sapt Bldg., Graham Rd., Ballard Estate, Bombay 400038. *Directorate of Supplies (Textiles),* 5th Flr., New C.G.O. Bldg., New Marine Lines, Bombay 400020. **Madras Office:** 26, Haddows Rd., Madras 600006. **Kanpur Office:** 7/29-B, Tilaknagar, Kanpur 208002.

Inspection Circles: 1. Ganesh Chandra Avenue, Calcutta 700013; Aayakar Bhavan Annexe, New Marine Lines, Bombay 400020; 26, Haddows Rd., Madras 600006; Jamshedpur 831007; Burnpur 713325; 4/286, Nawabganj, Kanpur 208002; Block No. 13, Jamnagar House, New Delhi 110011.

MINISTRY OF AGRICULTURE, Krishi Bhavan, Dr. Rajendra Prasad Rd., New Delhi 110001.

Minister, Rao Birendra Singh; *Minister of State,* Yogendra Makwana.

Department of Agriculture & Co-operation

Secretary, S. P. Mukerji; *Addl. Secs.,* B. S. Sarao, K. C. S. Acharya, P. S. Kohli; *Inspector-Genl. of Forests,* C. L. Bhatia; *Agricultural Commr.,* Harbans Singh; *Animal Husb. Commr.,* Dr. O. N. Singh; *Chmn., Agricultural Prices Commn.,* Dr. Yoginder K. Alaigh; *Fisheries Devpt. Commr.,* Dr. P. V. Dehadrai.

Department of Agricultural Research & Education

Director-Genl., ICAR & Secretary, Dr. O. P. Gautam.

Directorate of Cashewnut Development, M. G. Rd., Ernakulam, Cochin 682011.

Directorate of Cocoa, Arecanut & Spices Development, 1/500, Cannanore Rd., Calicut 673005. *Director,* Dr. C. K. George.

Directorate of Coconut Development, Ernakulam, Cochin 682011.

Directorate of Cotton Development, 14, R. Kamani Mrg., Ballard Estate, Bombay 400038.

Dir., K. Ramachandran.

Directorate of Economics & Statistics, Krishi Bhavan, New Delhi 110001.

Directorate of Extension, Shastri Bhavan, New Delhi 110001.

Directorate of Jute Development, Nizam Palace Campus, 234/4, Acharya J. B. Rd., Calcutta 700020.

Directorate of Lac Development, Circular Rd., Ranchi 834001.

Directorate of Millets Development, 4, Krishnamachari Rd., Madras 600034.

Directorate of Oilseeds Development, Telhan Bhavan, Himayatnagar, Hyderabad 500029.

Directorate of Plant Protection, Quarantine & Storage, N. H. IV, Faridabad 121001.

Directorate of Pulses Development, C-60/E, Mahanagar Extn., Lucknow 226006.

Directorate of Rice Development, 241, Pataliputra Colony, Patna 800013.

Directorate of Sugarcane Development, 1, Shyam Enclave, Gyani Border, P. O. Sahibabad 201005, Ghaziabad Dist., U.P.

Tambaku Vikas Nideshalaya (Directorate of Tobacco Development), 27, Eldams Rd., Teynampet, Madras 600018.

Dir., A. N. Singh.

MINISTRY OF CHEMICALS & FERTILIZERS, Shastri Bhavan, Dr. Rajendra Prasad Rd., New Delhi 110001.

Minister, Vasant Sathe; *Min. of State,* Ramachandra Rath; *Secretary,* B. B. Singh.

MINISTRY OF COMMERCE, Udyog Bhavan, New Delhi 110011.

Min. of State, N. R. Laskar; *Deputy Minister,* P. A. Sangma; *Secretary,* Abid Hussain. *Addl. Secs.,* V. C. Pande, Anand Sarup; *Addl. Secy. & Financial Adviser,* R. R. Gupta; *Economic Adviser,* Dr. Deepak Nayyar.

Department of Textiles

Secretary, Harbans Singh.

Office of the Chief Controller of Imports and Exports, New Delhi 110011.

Chief Controller, P. C. Jain; *Addl. Chief Controller*, N. N. Khanna; *Legal Adviser*, S. K. Bahadur; *Export Commr.*, M. E. Thomas.

Offices of the Jt. Chief Controllers of Imports & Exports: Central Licensing Area, Indraprastha Bhavan, New Delhi 110002; New C.G.O. Bldg., New Marine Lines, Bombay 400020; 4, Esplanade East, Calcutta 700069; 3, Vijaya Raghava Road, T. Nagar, Madras 600001; Damayanthi Chambers, 5-9-22/1, Adarsh Nagar, Ritz Hotel Rd., Hyderabad 500004; Multistoreyed Bldg., A Block, Lal Darwaja, Ahmedabad 380001; Cauvery Bhavan, 7th Flr., Bangalore 560009; 7/194, Swaroop Nagar, Kanpur 208002; *Other Offices: Dy. CCI&E:* T. D. Rd., Ernakulam, Cochin 682011; Santa-Inez, Ashirvad Bldg., Panaji 403001 (Goa); C. B. R. Bldg., The Mall, Amritsar 143001; Rajgarh Rd., Gauhati 781003; Bldg. 'A', Guru Teg Bahadur Commercial Complex, T. T. Nagar, Bhopal 462003; Udyog Bhavan, Jaipur 302005; *Controllers of Imports & Exports:* P. Box No. 14, Pondicherry 605001; Desai Bldg., Bhupindra Rd., Rajkot 360001; Air Cargo Complex Bldg., Sheermani Rd., Srinagar 190001; Near C.I.S.F. Quarter Guard & Quarter Master Stores, Visakhapatnam 530001; B. K. Rd. (Palace Compd.), Agartala 799001; Admve. Bldg., K. F. T. Zone, Gandhidham 370201; Biscomaun Bldg., Gandhi Maidan, Patna 800001; CSO-288, Sector 35-D, Chandigarh 160023; Bajrakabati Rd., Cuttack 753001; Morello Bldg., Shillong 793001.

Office of the Controller of Enemy Firms & Enemy Trading and Custodian of Enemy Property for India, Kaiser-I-Hind Bldg., Currimbhoy Rd., B. Estate, Bombay 400038.

Controller of Enemy Firms & Enemy Trading and Custodian of Enemy Property for India, Satyabir Singh Dodd.

Directorate-General of Commercial Intelligence and Statistics, 1, Council House St., Calcutta 700001.

Director-General of Commercial Intelligence & Statistics, D. C. Datta.

Office of the Development Commissioner (Handicrafts), Block 7 (West), Ramakrishna Puram, New Delhi 110066.

Devpt. Commr. for Handicrafts, Shiromani Sharma.

Office of the Textile Commissioner, New C.G.O. Bldg., 48, New Marine Lines, Bombay 400020.

Textile Commissioner, S. Ramamoorthi; *Regional Offices:* Ahmedabad, Amritsar, Bombay, Calcutta, Coimbatore, Madras & Kanpur.

Development Commissioner for Handlooms, Udyog Bhavan, New Delhi 110011.

Cardamom Board, Banerji Rd., Cochin 682018

Chmn., K. Mohanachandran; *Dir. (Cardamom Devpt.)*, Antony Cherian; *Secy.*, K. G. Nayar; *Pub. Officer*, A. Shahjahan.

Coffee Board, P. Box No. 5302, Bangalore 560001.

Chairman, S. K. Warrior; *Chief Coffee Mktg. Officer*, S. Jayaraman; *Secy.*, A. N. Balaram.

Rubber Board, Kottayam 686001.

Chmn., P. J. Thomas; *Rubber Prodn. Commr.*, P. Mukundan Menon; *Secy.*, V. Bhaskara Pillai.

Central Silk Board, United Mansions, 2nd Flr., 39, M. G. Rd., Bangalore 560002.

Chmn., B. Sivaraman; *V. Chmn.*, S. K. Misra; *Member-Secy.*, A. P. Bhatikar.

Tea Board, 14, Biplabi Tailokya Maharaj Sarani, Calcutta 700001.

Chmn., Jagdish Khattar; *Dy. Chmn.*, R. K. Tripathi; *Secy.*, N. Ramadurai; *Dir. of Tea Devpt.*, S. S. Nandkeolyar.

Tobacco Board, Lakshmipuram, Guntur 522002.

Chairman: M. C. Mahapatra; *Exec. Dir.*, J. Bapu Reddy; *Secy.*, L. Namassivaiah.

MINISTRY OF COMMUNICATIONS, Sanchar Bhavan, 20, Asoka Rd., New Delhi 110001.

Minister of State, V. N. Gadgil; *Dy. Minister*, V. N. Patil; *Secretary*, K. Thomas Kora; *Add. Secy.*, S. Shankar Sharan; *Financial Adviser & Addl. Secy.*, V. Devarajan; *Wireless Adviser*, T. V. Srirangan.

Post & Telegraphs Board, Sanchar Bhavan, Parliament St., New Delhi 110001

Chmn. & Dir. Genl., P & T., K. Thomas Khora.

Overseas Communications Service, Hqrs. Office, Videsh Sanchar Bhavan, Bombay 400023.

Director-General, K. C. Katiyar; *Addl. Dir.-Genl.*, D. K Narasimhan; *Other Offices:* Switching Complex, Videsh Sanchar Bhavan, Bombay 400023; Videsh Sanchar Bhavan, Bangla Sahib Rd., New Delhi 110016; Vikram Satellite Earth Stn., Arvi, Pune 412401; Beam Wireless Stn., Dighi, Pune 411015; 82A, Nari Shilp Mandir Rd., Dehra Dun 248001; OCS Troposcatter Project Office, Dagga House, Raj Baugh, Srinagar; Beam Wireless Stn., Dhond 413801; Videsh Sanchar Bhavan, Adams Rd., Madras 600002; Poddar Court, 18, Rabindra Sarani, Calcutta 700001.

MINISTRY OF DEFENCE, South Block, New Delhi 110011.

Minister, S. B. Chavan, *Minister of State*, K. P. Singh Deo; *Secretary*, S. K. Bhatnagar; *Scientific Adviser to the Defence Minister & Secy., Defence Research & Devpt.*, Dr. V. S. Arunachalam; *Secretary (Defence Prodn.)* M. C. Sarin; *Addl. Secy. & Financial Adviser*, B. M. Prabhu; *Addl. Secy. (Defence Supplies)*, Vacant; *Dir. Genl. of Resettlement*, Maj.-Gen. K. S. Barach; *Dir.-Genl. of Coast Guard*, Vice-Admiral V. A. Kamath.

Indian Army, Army Hqrs., New Delhi 110011.

Chief of Army Staff, Gen. A. S. Vaidya; *Vice-Chief of Army Staff*, Lt. Gen. G. S. Rawat; *Dy. Chief of Army Staff*, Lt. Gen. H. Kaul; *General Officer Commanding-in-Chief, Eastern Command, Fort William, Calcutta 700021*, Lt. Gen. K. Chiman Singh; *General Officer Commanding-in-Chief, Southern Command, Pune 411001*, Lt. Gen. T. S. Oberoi; *General Officer Commanding-in-Chief, Western Command*, Simla 171001, Lt. Gen. K. Sundarji; *General Officer Commanding-in-Chief, Central Command*, Lucknow 226002, Lt. Gen. Bhupinder Singh; *General Officer Commanding-in-Chief, Northern Command*, 56 APO, Lt. Gen. M. L. Chibber; *Adjutant-General*, Lt. Gen. N. S. Cheema; *Quarter Master-General*, Lt. Gen. M. M. L. Ghai; *Master-General of Ordnance*, Lt. Gen. M. L. Tuli; *Military Secretary*, Lt. Gen. S. Sahgal; *Engineer-in-Chief*, Lt. Gen. P. R. Puri; *Signal Officer-in-Chief*, Lt. Gen. M. S. Sodhi; *Director of Supplies and Transport*, Lt. Gen. J. N. Singh; *Director of Ordnance Services*, Lt. Gen. A. D. Mohoni; *Director of Electrical & Mechanical Engineering*, Lt. Gen. Sushil Kumar; *Director, Mil. Intelligence*, Lt. Gen. P. N. Kathpalia; *Director of Artillery*, Lt. Gen. J. R. Malhotra.

Indian Navy, Naval Hqrs., New Delhi 110011.

Chief of Naval Staff, Admiral O. S. Dawson; *Vice-Chief of Naval Staff*, Vice-Admiral R. H. Tahiliani; *Flag Officer Commanding-in-Chief, Western Naval Command, Shahid Bhagat Singh Rd., Bombay 400001*, Vice Admiral S. Mookerjee; *Flag Officer Commanding-in-Chief, Eastern Naval Command, Visakhapatnam*, Vice-Admiral J. G. Nadkarni; *Flag Officer Commanding-in-Chief, Southern Naval Command, Cochin*, Vice-Admiral K. K. Nayyar; *Flag Officer Commanding, Goa Area*, Rear Admiral S. C. Chopra; *Chief of Material*, Vice Admiral N. Bhalla, *Chief of Personnel*, Vice-Admiral S. M. Gadihoke; *Flag Officer Commanding, Western Fleet*, Vice-Admiral J. S. Khurana; *Flag Officer Commanding, Eastern Fleet*, Rear Admiral L. Ramdas; *Dy. Chief of Naval Staff*, Vice-Admiral G. M. Hiranandani.

Indian Air Force, Air Hqrs., Vayu Bhavan, New Delhi 110011.

Chief of Air Staff, Air Chief Marshal L. M. Khatre; *Vice-Chief of Air Staff*, Air Marshal J. R. Bhasin; *Deputy Chief of Air Staff*, Air Marshal K. D. Chaddha; *Air Officer-in-Charge, Maintenance*, Air Marshal S. C. Lal; *Air Officer-in-Charge, Personnel*, Air Marshal D. A. Lafontaine; *Air Officer-in-Charge (Adm.)*, Air Marshal S. K. C. Gupta; *Air Officer Commanding-in-Chief, Western Air Command, Palam, New Delhi*, Vacant; *Air Officer*

Commanding-in-Chief, Central Air Command, Allahabad, Air Marshal B. W. Chauhan; *Air Officer Commanding-in-Chief, Eastern Air Command, Shillong,* Air Marshal M. J. Dotiwalla; *Air Officer Commanding-in-Chief, Southern Air Command Trivandrum,* Air Marshal Terence De Sa; *Air Officer Commanding-in-Chief, Maintenance Command, Nagpur, Air Marshal* K. I. S. Chhabra; *Officer Commanding-in-Chief, Training Command, Bangalore,* Air Marshal E. P. R. Nair; *Air Officer Commanding-in-Chief, South Western Air Command,* Air Marshal C. K. V. Gole.

Directorate of Public Relations, Ministry of Defence, New Delhi 110011.

Ordnance Factory Board, 6, Esplanade East, Calcutta 700069.

Directorate of Electronics, D-1 Block, Sena Bhavan, New Delhi 110011.

Directorate-General, National Cadet Corps, West Block No. 4, Ramakrishnapuram, New Delhi 110066.

Director-General, Lt. Gen. S. L. Malhotra.

Office of the D.G., A.F.M.S., 'M' Block, New Delhi 110001.

Director-General of Armed Forces Medical Services, Lt. Gen. A. R. Subramanian; *Dy. D.G., A.F.M.S.,* Maj. Gen. P. V. Subbukrishnan.

Defence Institute of Fire Research, New Delhi 110046.

Defence Science Laboratory, Metcalfe House, New Delhi 110006.

Defence Scientific Information & Documentation Centre, Metcalfe House, New Delhi 110006.

Directorate of Aeronautics, D-1, Block, Sena Bhawan, New Delhi 110011.

Directorate of Electronics, D-I Block, Sena Bhawan, New Delhi 110011.

Directorage of Engineering, R. & D. Orgn., D-1 Block, Sena Bhawan, New Delhi 110011.

Directorate of Military Lands & Cantonments, H. Block, New Delhi 110011.

Directorate of Naval Research & Development, D-1 Block, Sena Bhawan, New Delhi 110011.

Directorate of Psychological Research, West Block, No. 8, R. K. Puram, New Delhi 110066.

Directorate of Research in Basic Sciences, M. Block, New Delhi 110011.

Directorate-General of Resettlement, Maulana Azad Rd., New Delhi 110011.

Electronic Data Processing Centre, Signal's Enclave, New Delhi 110010.

Institute of Armament Technology, Girinagar, Pune 411025.

National Defence Academy, Khadakvasla, Pune 411023.

Commandant, Rear Admiral R. P. Sawhney.

National Defence College, 6, Tees January Mrg., New Delhi 110011.

Solidstate Physics Laboratory, Lucknow Rd., Delhi 110007.

MINISTRY OF EDUCATION & CULTURE, Shastri Bhavan, New Delhi 110001.

Min. of State, Smt. Sheila Kaul; *Dy. Minister,* P. K. Thungon; *Chmn., Festival of India,* Smt. Pupul Jayakar, *Secretary,* Smt. Serla Grewal; *Spl. Secy.,* Kireet Joshi; *Addl. Secy.,* Dr. (Smt.) Kapila Vatsyayan; *Dir.-Genl., Festival of India & Addl. Secy.,* S. K. Misra; *Ednl. Adviser,* Prof. C. S. Jha.

Central Board of Secondary Education, 17-B, Indraprastha Estate, New Delhi 110002.

Dept. of Adult Education, J-17, Hauz Khas Enclave, New Delhi 110016.

National Archives of India, Janpath, New Delhi 110002.

National Gallery of Modern Art, Jaipur House, New Delhi 110011.

National Library, Belvedere, Calcutta 700027.

National Council of Educational Research & Training, NIE Campus, Sri Aurobindo Marg, New Delhi 110016.

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School of Planning & Architecture, 4, Block B. Indraprastha Estate, New Delhi 110002.

University Grants Commission, Bahadur Shah Zafar Marg, New Delhi 110002.

Chmn., Dr. (Mrs.) Madhuri R. Shah; *V. Chmn.,* Prof. Rais Ahmed; *Secretary,* Prof. S. K. Khanna; *Addl. Secy. (Offg.),* S. Viswanath.

MINISTRY OF ENERGY, Shram Shakti Bhavan, New Delhi 110001.

Minister, P. Shiv Shankar; *Minister of State,* Arif Mohammad Khan.

Department of Power

Secretary, S. Venkitaramanan.

Central Electricity Authority Ltd., Sewa Bhavan, R. K. Puram, New Delhi 110066.

Chmn., A. N. Singh; *Members,* L. R. Suri, L. C. Jain, M. K. Sambamurti, S. A. Subramaniam, Dr. R. Rajagopalan.

Department of Coal, Shastri Bhavan, Dr. Rajendra Prasad Rd., New Delhi 110001.

Minister of State, Dalbir Singh; *Secretary,* S. B. Lal; *Addl. Secy.,* J. C. Jetley.

Coal India Ltd., 10, N. Subhas Rd., Calcutta 700001.

Coal Controller, 1, Council House St., Calcutta 700001.

Department of Petroleum

Minister of State, Gargi Shankar Mishra; *Secretary,* A. S. Gill.

Oil Industry Development Board

Chairman, P. Shiv Shankar *(Minister of Energy), Members,* A. S. Gill *(Secretary, Deptt. of Petroleum),* B. B. Singh *(Secretary, Ministery of Chemicals & Fertilizers),* Dr. Vijaya L. Kelkar *(Adviser, Deptt. of Petroleum),* R. Vasudevan *(Jt. Secretary & Financial Adviser, Deptt. of Petroleum),* S. Sunder *(Joint Secretary, Deptt. of Economic Affairs),* Col. S. P. Wahi *(Chairman, Oil & Natural Gas Commission),* C. R. Jagannathan *(Chairman & Managing Director, Oil India Ltd.),* Dr. S. Ganguli *(Chairman & Managing Director, Indian Petrochemicals Corpn. Ltd.),* T. K. Sinha *(Mg. Dir., IOC (Refineries & Pipelines)),* Joseph Kurien *(Chairman & Mg. Dir., Madras Fertilizers Ltd.),* Dr. Hari Narayan *(Dir., National Geophysical Research Institute),* Raja Kulkarni *(Pres., National Federation of Petroleum Workers).*

Oil and Natural Gas Commission, Post Box No. 20, Tel Bhavan, Dehra Dun 248003.

Chmn., Col. S. P. Wahi.

Projects: Western Region, Makarpura Rd, Baroda 390009, *Ahmedabad Project,* Jn. of Kaba Kalel Rd., Sabarmati, Ahmedabad 380005; *Ankleshwar Project,* Ankleshwar 393001; *Cambay Project,* P.O. Kansari (via Anand); *Mehsana Project,* Near Aerodrome Rd., Mehsana 384001; *Eastern Region,* Nazira (Sibsagar Distt., Assam); *Cachar Project,* Silchar 788001 (Assam); *Central Region,* 41, Chowringhee Rd., Calcutta 700071; *West Bengal Project,* 1/1, Taratola Rd., Calcutta 700088; *Jaisalmer Project,* 114, Nehru Park Rd., Bhakat Sagar, Jodhpur; *Krishna-Godavari Project,* 36-10-13, Stadium Rd., Rajahmundry (AP); *Puranpur Project,* Civil Lines, Bareilly 243001; *Tripura Project,* Agartala 799001; *Offshore Region,* BOP, Nariman Pt., Bombay 400021; *Geoscience Division, Central Circle,* 50, Jawahar Lal Nehru Rd., Calcutta 700071; *Northern Circle,* Tel Bhavan, Dehra Dun; *Southern Circle,* 6th Floor, SPIC Centre, 97, Mount Rd., Madras 600032; *New Delhi Office,* 607, Kailash, 6th Flr., Kasturba Gandhi Marg, New Delhi 110001; *Hydrocarbons India Ltd.,* 7th floor, Bank of Baroda Bldg., 16, Parliament St., New Delhi 110001; *Iraq Project,* Braiha Mohalla, Post Box No. 3 & 5, Basrah

(Iraq); *Titan Project (ONGC)*, C-5, Community Centre, Safdarjang Development Area, New Delhi 110016; *Institutes: K. D. Malaviya Institute of Petroleum Exploration*, 9, Kaulagarh Rd., Dehra Dun 248195; *Institute of Drilling Technology*, Kaulagarh Rd., Dehra Dun; *Institute of Reservoir Studies*, Chandkheda, Sabarmati, Ahmedabad 380005.

Indian Oil Corporation Ltd., 254-C, Dr. Annie Besant Rd., Prabhadevi, Bombay 400025.

Chairman, A. J. A. Tauro; *Dir. (Personnel)*, Bimal Kapoor; *Financial Dir.*, S. K. Comal; *Chief Gen. Manager (Co-ordn.)*, J. Jayaraman; *Gen. Managers*, D. N. Sharma (*Intnl. Trade*), H. N. Roy Chowdhury *(Intnl. Audit)*; *Chief Pub. Relations Manager*, U. K. Dikshit.

Marketing Division

Gen. Managers, B. M. Lal *(Sales)*, G. S. Pandya *(F. C.)*, C. Y. V. Rao *(Technl. Audit)*, S. C. Ghose *(Supplies)*, Indu Vira *(Lubes)*, B. B. Bakhshi *(Personnel)*.

Regions: *Western Regn.*, Keshavrao Khadye Mrg., Mahalaxmi, Bombay 400034: *Gen. Manager*, R. M. Basrur; *Northern Regn.*, Indian Oil Bhavan, Janpath, New Delhi 110001: *Gen. Manager*, J. S. Oberoi; *Eastern Regn.*, 1, Shakespeare Sarani, Calcutta 700071: *Gen. Manager*, P. E. Mathews; *Southern Regn.*, 139, Nungambakkam High Rd., Madras 600034; *Gen. Manager*, S. P. Mathur; *General Manager, (LPG)*, J. L. Zutshi.

Research & Development Centre, Sector 13, Plot No. 1, Faridabad 121001 (Haryana). *Director*, Dr. P. K. Mukhopadhyay.

Refineries & Pipelines Division, Indian Oil Bhavan, Janpath, new Delhi 110001.

Mg. Dir., T. K. Sinha; *Chief Gen. Managers:* S. K. Nayak *(Projects)*, K. K. Malhotra *(Operations); Gen. Managers*, N. Guha Roy *(Pipelines)*, K. Jai Singh *(P. & A.)*; Gujarat Refinery Jawaharnagar 390001: *Gen. Manager*, J. L. Vasudeva; Mathura Refinery, 25, Gurunanak Nagar, Mathura 281001 (U.P.): *Gen. Manager*, K. C. Jain; Haldia Refinery, Haldia 721606 (Midnapur Dist., W. Bengal): *Gen. Manager*, N. L. Majumdar; Gauhati Refinery, Noonmati, Gauhati 781001: *Gen. Manager*, T. S. Krishnamoorthy; Barauni Refinery, Barauni Oil Refinery 851114. (Begusarai Dist., Bihar): *Gen. Manager*, S. N. Sarkar; Assam Oil Dn. (IOC), Digboi 786171 (Assam): *Gen. Manager*, B. N. Dutta.

Geological Survey of India, 27, J. L. Nehru Rd., Calcutta 700016.

Dir.-Genl., S. K. Mukherjee; *(Coal Wing* 29, *J. L. Nehru Rd., Calcutta* 700016; *(N. Region—*3, *Gokhale Mrg., Lucknow* 226001; *W. Region—A*3, *Swai Jaisingh Rd., Jaipur* 302006; *(S. Region—*5-5-449, *Mukharam Jahi Rd., Hyderabad* 500001; *(Central Region—New Secretariat Bldg., Nagpur* 440001; *(Eastern Region—*12 *AA & B. Russell St., Calcutta* 700071; *(North Eastern Kumud Villa Complex, Nongrim Hills, Laitumkhrah, Shillong* 793003; *(A.M.S.E. Wing*, 2, *Church St., Bangalore* 560001; *(Offshore Mineral Exploration & Marine Geology Wing, Ratnakar Bldg.*, 4, *Chowringhee Lane, Calcutta* 700016; *(GSI Trg. Instt.*, 2-11-252*A)*, *Jabbar Bldg., Begumpet. Hyderabad* 560016.

MINISTRY OF EXTERNAL AFFAIRS, New Delhi 110011.

Minister, Mrs. Indira Gandhi; *Chmn. Policy Planning Board*, G. Parthasarathy; *Min. of State*, A. A. Rahim, Ram Niwas Mirdha. *Foreign Secretary*, M. Rasgotra; *Secs.*, Romesh Bhandari, K. Natwar Singh; *Addl. Secs.*, Dr. J. S. Teja, S. K. Bhutani, I. S. Chadha.

Central Passport & Emigration Organisation

Jt. Secy. (CPV) & Chief Passport Officer, P. S. Sahai; *R.P.O.s/P.O.s*, A. S. Narkar *(Ahmedabad)*, S. K. Gudi *(Bangalore)*, K. S. Krishnamurthy *(Bareilly)*, Krishan Sur *(Bhopal)*, A. K. Banerjee *(Bhubaneswar)*, D. K. Kudtarkar *(Bombay)*, D. Sengupta *(Calcutta)*, A. L. Puri *(Chandigarh)*, P. Parameswaran *(Cochin)*, S. Kipgen *(New Delhi)*, B. K. Gogai *(Gauhati)*, K. Kondayya *(Hyderabad)*, Smt. Primrose R. Sharma *(Jaipur)*, M. M. Saigal *(Jullundur)*, K. G. Dharmapalan *(Kozhikode)*, Ajay Swarup *(Lucknow)*, T. K. Gopalan *(Madras)*, S. C. Deb *(Patna)*, Manohar Singh *(Srinagar)*, S. Thangavelusamy *(Protector of Emigrants—Trivandrum)*.

MINISTRY OF FINANCE, North Block, New Delhi 110001.

Minister: Pranab Kumar Mukherjee; *Minister of State:* S. M. Krishna; *Dy. Minister:* Janardhan Poojary.

Department of Economic Affairs

Sr. Adviser, K. R. Puri; *Secretary*, P. K. Kaul; *Spl. Secy./Chief Economic. Adviser*, Bimal Jalan; *Addl. Secy.*, J. S. Baijal; *Economic Advisers*, Dr. Mehfooz Ahmed, Dr. Montek Singh Ahluwalia.

Insurance Wing, Nirvachan Sadan, Ashoka Rd., New Delhi 110001; *Controller of Insurance*, R. K. Mahajan; *Addl. Controller*, S. Subramanian.

Department of Economic Affairs (Banking Divn.), Jeewan Deep Bldg., Parliament St., New Delhi 110001.

Department of Expenditure

Secretary, R. Ganapati; *Addl. Secy.*, Mrs. Otima Bordia.

Bureau of Public Enterprises, Public Enterprise Bhavan, Lodi Rd. Complex, New Delhi 110001.

Directory-General S. D. Srivatsava; *Adviser, Pers. Mgmt. Cum-Secy., PESB*, C. P. Mittal.

Department of Revenue

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Chmn., Central Board of Direct Taxes and ex-officio Addl. Secy., V. Chidambaram; *Members*, N. Subramaniam, K. R. Raghavan, R. R. Khosla, M. S. Unninayar, K. K. Sen. A. R. Natarajan, P. S. Bhaskaran.

Central Revenues Control Laboratory, Agricultural Research Institute, New Delhi 110012.

Settlement Commission for (IT & WT), R. 2, 4th Flr., Loknayak Bhavan, Khan Mkt., New Delhi 110003.

Chmn., G. D. Tandon.

Enforcement Directorate, Loknayak Bhavan, 6th Flr., Khan Mkt., New Delhi 110003.

Director, Vacant; *Spl. Dirs.:* D. C. Kohli, R. Swaminathan. *Delhi Zonal Office*—Loknayak Bhavan, 6th Flr., Khan Mkt., New Delhi 110003; *Bombay Zonal Office*—Janmabhoomi Chambers, Walchand Hirachand Mrg., Bombay 400038; *Subsidiary Office:* Mittal Chambers, 2nd Flr., N. Point, Bombay 400021; *Calcutta Zonal Office*—8, Lindsay St., Calcutta 700087; *Special Unit, Calcutta* —225/C, A. J. C. Bose Rd., Calcutta 700020; *Madras Zonal Office*—Shastri Bhavan, 3rd Flr., III Block, 35, Haddows Rd., Madras 600006; *Jullundur Zonal Office*—39, Green Park, Jullundur 144001; *Varanasi Sub-Zonal Office*—36, Gandhi Nagar (Sigra), Varanasi 221001; *Jaipur Mobile Unit*—SB-109, Bapunagar, Tonk Rd., Lal Kothi, Jaipur 302004; *Srinagar Sub-Zonal Office*—151, Rajbagh, Srinagar 190001; *Agra Sub-Zonal Office*—33/123, Adarsh Nagar, Pratapura, Agra 282001; *Ahmedabad Sub-Zonal Office*—Bldg. 'B', Stadium House, Navrangpura, Ahmedabad 380009; *Goa Sub-Zonal Office*—Shanta Bldg., No. 11-C, 2nd Flr., St. Inez, Panaji 403001, Goa; *Bangalore Unit*—9/1, Madras Bank Rd., Bangalore 560001; *Hyderabad Mobile Unit*—No. 10-3-772, Vijayanagar Colony, Hyderabad 500028; *Madurai Mobile Unit*—42, Besant Rd., Central Excise Wing, Narayanalayam, Madurai 625002; *Kozhikode Sub-Zonal Office*—Mayoor Rd., Calicut 673004; *Trivandrum Sub-Zonal Office*—C. V. Raman Pillai Rd., Thycaud, Trivandrum 695014; *Gauhati Office*—Piyali Phookhan Rd., Rehabari, Gauhati 781008.

India Government Mint, Shahid Bhagatsingh Rd., Bombay 400023.

Gen. Manager, G. R. Kahate.

India Government Mint, Alipore, Calcutta 700088.

Gen. Manager, H. N. Gupta; *Sr. Works Manager*, S. D. Swamy.

India Government Mint, Hyderabad 500004.

General Manager, R. Ramdas; *Works Manager,* L. R. Prasada Rao.

India Security Press, Nasik Rd., 422101.

Gen. Manager & Controller of Stamps, India Security Press, P. S. Shivaram; *.Gen. Manager, Currency Note Press,* S. D. Idgunji.

National Savings Commissioner for India, P. Box No. 96, Seminary Hills, Nagpur 440001. *National Savings Commr. for India,* S. B. Jain.

Narcotics Department, 19, The Mall, Morar, Gwalior 474006.

Narcotics Commr. of India, M. M. Bhatnagar; *Dy. Narcotics. Commrs.,* V. K. Sharma *(Enf.),* Miss Parveen Talha *(Lucknow),* S. P. Singh *(Kota),* S. Chandra *(Neemuch).*

Govt. Opium & Alkaloid Factories of India, H.O.: 10-C, Hari Om Colony, Morar, Gwalior 474006; *Sales Marketing and Export Wing:* Saraswati House, 5th Flr., 27, Nehru Place, New Delhi 110019.

Chief Controller: M. C. Sharma; *Gen. Managers, Govt. Opium & Alkaloid Works,* A. L. Mediratta *(Ghazipur),* T. R. S. Krishnan *(Neemuch).*

Reserve Bank of India, Central Office, Post Box 1007, S. Bhagat Singh Rd., Bombay 400023.

Governor, Dr. Manmohan Singh; *Dy. Governors,* R. K. Kaul, A. Ghosh, Dr. C. Rangarajan, Dr. M. V. Hate; *Executive Dirs.;* Dr. P. D. Ojha, B. N. Srivastava, V. B. Kadam, T. N. A. Iyer; *Press Relations Officer,* B. Rangaswamy; *Chief Manager, Deptt. of Admn.,* C. V. Nair; *Chief Officer, Personnel Policy Deptt.,* M. A. Pai; *Financial Controller,* R. R. Pradhan; *Chief Accountant,* R. N. Majumdar; *Chief Officer, Deptt. of Currency Mgmt.,* M. R. Karuppanchetty: *Legal Adviser,*V. G. Hegde; *Adviser, Management Services Deptt.,* Vacant; *Controller, Exchange Control Deptt.,* S. S. Thakur; *Chief Officer, Deptt. of Banking Operations & Devpt.,* U. K. Sarma; *Chief Officer, Indl. & Export Credit Deptt.,* Kum. V. Vishwanathan; *Chief Officer, Rural Plng. & Credit Deptt.,* Dr. M. R. Kotdawala; *Officer-in-Charge, Deptt. of Economic Analysis & Policy,* K. M. Hanifa; *Officer-in-Charge, Deptt. of Financial Companies,* K. S. Jaspal; *Principal Adviser, Deptt. of Statistical Analysis & Computer Services,* C. V. Rao.

State Bank of India, New Administrative Bldg., Madame Cama Rd., Nariman Point, Bombay 400021.

Central Office: Chmn., R. P. Goyal; *Mg. Dir.,* Vacant.

Associate Banks: State Bank of Hyderabad, State Bank of Patiala, State Bank of Saurashtra, State Bank of Mysore, State Bank of Travancore, State Bank of Indore, State Bank of Bikaner & Jaipur.

Life Insurance Corporation of India, *Central Office:* 'Yogakshema', Jeevan Bima Marg, Bombay 400021.

Current-inCharge & Mg. Dir., A. S. Gupta; *Mg. Dir.,* S. Subramanyan; *Exec. Dirs.,* S. Hariharan *(Personnel)* N. Sundaresan *(Actl.,),* C. R. Thakore *(Inv.),* B. Sundara Rao *(Bldg.), Chief (O & M:CP & OIC), M. G. Diwan; Chief (Dev. & G&S),* T. S. Subramaniam; *Chief Accountant,* V. M. Pal; Manager, Pub. Relations, D. J. Joshi.

General Insurance Corpn. of India, Ind. Assurance Bldg., Churchgate, Bombay 400020.

Chmn., Ashok Goenka; *Mg. Dirs.,* R. V. Madhava Rao, S. K. Seth; *Chmn.-cum-Mg. Dirs.,* M. R. Das Gupta *(National),* A. C. Mukherji *(New India),* K. N. Malhotra *(Oriental),* K. C. Ponnappa *(United India).*

MINISTRY OF FOOD AND CIVIL SUPPLIES, Krishi Bhavan, New Delhi 110001.

Minister of State, Bhagwat Jha Azad.

Department of Food

Secretary, B. C. Gangopadhyay; *Addl. Secy.,* T. U. Vijayasekharan.

Department of Civil Supplies

Secretary, M. Subramaniam.

Forward Markets Commission, 'Everest', 100, Marine Drive, Bombay 400002.

MINISTRY OF HEALTH & FAMILY WELFARE, Nirman Bhavan, New Delhi 110011.

Minister, B. Shankaranand; *Dy. Minister,* Miss Kumudben M. Joshi; *Secretary,* C. R. Vaidyanathan.

Directorate-General of Health Services, Nirman Bhavan, New Delhi 110011.

All-India Institute of Hygiene & Public Health, 110, Chittaranjan Avenue, Calcutta 700073.

Central Drugs Laboratory, 3, Kyd St., Calcutta 700016.

Central Drugs Standard Control Organisation, Ministry of Health, New Delhi 110011.

MINISTRY OF HOME AFFAIRS, North Block, New Delhi 110001.

Minister, P. V. Narasimha Rao; *Ministers of State,* P. Venkatasubbaiah, Mrs. Ram Dulari Sinha; *Secretary,* M. M. K. Wali; *Dir.-Genl., Border Security Force,* Sirbal Nath; *Chmn., Minorities Commn.,* M. H. Beg.

Commissioner for Linguistic Minorities in India, 40, Amarnath Jha Marg, Allahabad 211002.

Office of the Commissioner for Scheduled Castes and Scheduled Tribes, West Block No. 1, Wing No. 7, R. K. Puram, New Delhi 110022.

Commr. for Scheduled Castes and Scheduled Tribes, Vacant; *Dy. Commrs.,* R. Rozika, S. K. Kaul.

Registrar-General, Kotah House Annexe, 2-A, Mansingh Rd., New Delhi 110011.

Registrar-General & Census Commr., Vacant; *Jt. Registrars—Genl.,* V. P. Pandey, Dr. M. Holla *(Vital Stats.)*

Department of Personnel & Administrative Reforms

Secretary, U. C. Agarwal; *Addl. Secy.,* R. Parmeswar.

Central Bureau of Investigation, Hqrs. Office: Sardar Patel Bhavan, Parliament St., New Delhi 110001.

Director, CBI & IGP/SPE, J. S. Bawa; *Jt. Dirs.,* E. N. Renison, B. M. Saighal, G. Ramachandran, K. S. Dhillon.

Bureau of Police Research & Development, B-1688, Curzon Rd. Barracks, Kasturba Gandhi Mrg., New Delhi 110001.

Central Forensic Science Laboratory, East Block VII, R. K. Puram, New Delhi 110066.

Directorate-General of Central Reserve Police Force, R. K. Puram, New Delhi 110066.

Institute of Secretariat Trg. & Management, West Block 1, Wing 5, R. K. Puram, New Delhi 110066.

Lal Bahadur Shastri National Academy of Administration, Charleville, Mussoorie 248179.

MINISTRY OF INDUSTRY, Udyog Bhavan, New Delhi 110011.

Minister, Sripat Mishra; *Minister of State,* S. B. P. Pattabhi Rama Rao.

Department of Industrial Development

Secretary, Dr. S.S. Siddhu; *Secy. (TD) & DGTD,* Vacant; *Addl. Secy.,* R. N. Chopra; *Addl. Secy. & Financial Adviser,* K. C. Sodhia; *Security Adviser & DGIC,* S. Anandaram.

Department of Heavy Industry

Secretary, Vacant.

Bureau of Industrial Costs & Prices, Lok Nayak Bhawan, 7th Flr., New Delhi 110003.

Coir Board, Post Box 1752, Ernakulam South, Cochin 682016.

Chmn., M. Mohankumar; *Secy.,* T. Devidas.

Khadi and Village Industries Commission, Gramodaya, Irla Rd., Vile Parle (West), Bombay 400056.

Chmn., A. M. Thomas; *Vice-Chmn.*, L. R. Acharya; *Secy.*, Jagtap Dubey.

Office of the Salt Commissioner, P. Box No. 139, Jaipur 302001. *Salt Commr.*, P. Subramanian; *Dy. Salt Commrs.*, B. Revanna *(Hqrs);* R. Mohan, *Exchange Bldg., Sprott Rd., B. Estate, Bombay 400038;* R. Prakash, *II Block, II Flr., Shastri Bhavan, Nungambakkam, Madras 600006;* E. Kameswara, *Ajanta Comml. Centre, B. Block, Ashram Rd., Ahmedabad 380014.*

The Patent Office, 214, Acharya Jagadish Bose Rd., Calcutta 700017.

Controller-General of Patents, Designs and Trade Marks, Dr. K. V. Swaminathan, Central Bldg., M. Karve Rd., Bombay 400020; *Jt Controller of Patents & Designs,* Shanti Kumar, The Patent Office, 214, Acharya Jagadish Bose Rd., Calcutta 700017. *Branch Offices:* Todi Estates, Lower Parel (West), Bombay 400013; 61, Wallajah Rd., Madras 600002; Municipal Mkt. Bldg., Saraswati Mrg., Karol Bagh, New Delhi 110005.

Small Scale Industries, Nirman Bhavan, Maulana Azad Rd., New Delhi 110011.

Development Commr., P. P. Khanna.

Trade Marks Registry, Central Bldg., M. Karve Rd., Bombay 400020.

Controller-General of Patents, Designs & Trade Marks, Shanti Kumar; *Jt. Registrar of Trade Marks,* R. A. Acharya.

MINISTRY OF INFORMATION AND BROADCASTING, Shastri Bhavan, New Delhi 110001.

Minister, H. K. L. Bhagat; *Dy. Minister,* Ghulam Nabi Azad; *Secretary,* S. S. Gill; *Dirs.,* P. B. Barthakur *(Pubn. Dn.),* V. N. Majgaonkar *(Photo Dn.),* S. S. Shashi *(Field Publicity), Registrar of Newspapers for India,* R. N. Mahadevan; *Chmn., Press Council of India,* Justice A. N. Grover.

Directorate of Advertising & Visual Publicity, PTI Bldg., 3rd Flr., Parliament St., New Delhi 110001. *Dir.* Miss Shahla Haidar.

Directorate-General, All-India Radio, Akashwani Bhavan, Parliament St., New Delhi 110001.

Director-General, S. S. Varma; *Engineer-in-Chief,* P. S. Bhagat; *Addl. Dir.-Genl.,* A. R. Shinde.

Directorate-General Doordarshan (Television), Mandi House, Copernicus Mrg., New Delhi 110001.

Director-General, Harish Khanna; Addl. *Dir.-Gen.,* Manzurul Amin; *Chief Engr.,* Vacant; *Dy. Dirs.-Genl.* Kum. Mira Mozoomdar, R. S. Bhole.

Press Information Bureau, Shastri Bhavan, Dr. Rajendra Prasad Rd., New Delhi 110001.

Principal Information Officer, U. C. Tiwari.

Regional Offices: C. G. O. Building Annexe, 101, Maharshi Karve Road, Bombay 400020; Shastri Bhawan, 26, Haddows Rd., Nungambakkam, Madras 600006; 8, Esplanade East, Calcutta 700001.

MINISTRY OF IRRIGATION, Shram Shakti Bhavan, Rafi Mrg., New Delhi 110001.

Min. of State, Harinath Mishra; *Secretary,* M. G. Padhye; *Addl. Secy.,* D. U. Telang; *Commr. for Indus Water.* C. S. Hukmani; *Commr. (Ganga Basin),* K. R. Chandrasekharan; *Mem. (JRC), Indo-Bangladesh,* R. Rangachari; *Chmn. (CGWB),* B. D. Pathak.

C. S. Hukmani; *Commr. (Ganga Basin),* K. R. Chandrasekharan; *Mem. (JRC), Indo-Bangladesh,* R. Rangachari; Chmn. *(CGWB),* B. D. Pathak.

Central Board of Irrigation & Power, Malcha Marg, Chanakyapuri, New Delhi 110021.

Pres., A. K. Sah; *Vice-Presidents,* P. R. Gandhi, T. K. Srinivasan; *Mem.-Secy.,* C. V. J. Varma.

Central Water Commission, Sewa Bhavan, R. K. Puram, New Delhi 110066.

MINISTRY OF LABOUR & REHABILITATION, Shram Shakti Bhavan, Rafi Marg, New Delhi 11001.

Minister, Veerendra Patil; *Min. of State,* Dharam Vir.

Department of Labour

Secretary, B. G. Deshmukh: *Addl. Secy.,* R. K. A. Subrahmanya.

Board of Arbitration, 401, Nirmal Tower, 26, Barakhamba Rd., New Delhi 110001.

Directorate-General of Employment and Training, Shram Shakti Bhavan, Rafi Marg, New Delhi 110001.

D.G. & Joint Secretary, s. Venkataramani; *Directorate of Emp. Exchanges: Dir.,* K. Kumar; *Directorate of Trg.: Dir.,* K. C. Saksena; *Directorate of Apprenticeship Trg.: Dir.,* S. K. Giri.

Directorate of Mines Safety, Dhanbad 826001.

Labour Bureau, Cleremont, Simla 171004.

Office of the Chief Labour Commissioner (C), Shram Shakti Bhavan, Rafi Marg, New Delhi 110001. ***Chief Labour Commissioner,*** **P. D. Shenoy.**

Office of the Central Provident Fund Commissioner, 9th Flr., Mayur Bhavan, Conn. Circus, New Delhi 110001. ***Central Provident Fund Commissioner,*** **B. K. Bhattacharya.**

Employees' State Insurance Corporation, ESIC Bldg., Kotla Rd., New Delhi 110002.

Director-General, Har Mander Singh.

Regional Offices: ESIC Bldg., 5/1, Grant Lane, Calcutta 700012; 143, Sterling Rd., Madras 600034; ESIC Bhavan, Lower Parel, Bombay 400013; ESIC Bhavan, Ashram Rd., Ahmedabad 380014; ESIC Bhavan, Sarvodaya Nagar, Kanpur 208005; Gokul Chambers, 11, Sarju Prasad Rd., Indore 452001; 5-9-23, Hill Fort Rd., Hyderabad 500483; ESIC Bhavan, Bhavani Singh Rd., Jaipur 302001; ESIC Bhavan, Block No. 3, Sector 19-A, Madhya Marg, Chandigarh 160017; N.H-5, N.I.T., Faridabad (Haryana); ESIC Bhavan, North Swaraj Round, Trichur 680001; ESIC Bldg., 13, Kumara Park East Extn., Bangalore 560001; ESIC Bldg., Belly Rd., Opp. Central Revenue Bldg., Patna; Plot No. C, Janpath, Unit No. IX, Bhubaneswar; ESIC Building, P.O. Bamunimaidan, Gauhati 781021; ESIC Bhavan, Ganesh Peth, Nagpur 440018; Sanas Chamber, 987, Bhavani Peth, Pune 411002; 23-23-B, EMCA House, Ansari Rd., Darya Ganj, New Delhi 110002; E.S.I. Hospital, Basaidarapur, Ring Rd., New Delhi 110015.

Central Board for Workers' Education, 1400, West High Court Rd., Gokulpeth, Nagpur 440010.

Coal Mines & Mica Mines Labour Welfare Fund Organisation, Jagjivan Nagar, Dhanbad 826001.

Directorate-General of Factory Advice Service & Labour Institutes, Kharkana Salah Seva Aur Shram Vigyan Kendra, Mahanideshalaya, **Sion, Bombay 400022.** ***Director-General,*** **Dr. S. S. Ramaswamy.**

Central Labour Institute, Sion, Bombay 400022. Regnl. Labour Inst., Patipukar, Lake Town, Calcutta 700089. Regnl. Labour Instt., Sarvodaya Nagar, Kanpur 208005. Regnl. Labour Instt., Tharamani, Madras 600013.

Department of Rehabilitation, Jaisalmer House, Mansingh Road, New Delhi 110011.

Secretary, **B. G. Deshmukh;** ***Chairman & Chief Administrator, Dandakaranya Project, Koraput (Orissa),*** **B. C. Patnaik.**

MINISTRY OF LAW, JUSTICE & COMPANY AFFAIRS, Shastri Bhavan, Dr. Rajendra Prasad Rd., New Delhi 110001.

Minister, Jagannath Kaushal.

Department of Legal Affairs

Attorney-General of India, K. Parasaran; *Solicitor-General of India,* Vacant; *Addl. Solicitors-General of India,* Milan Kumar Banerji, K. G. Bhagat.

Secretary, B. S. Sekhon; *Addl. Secy.,* Vacant; *Chmn., F.E.R.A. Board,* Ch. Ramakrishana Rao; *Chmn., Law Commission,* M. K. Mathew.

Legislative Department

Secretary, R. V. S. Peri Sastri; *Addl. Secs.,* S. Ramaiah; Smt. V. S. Rama Devi; *Consultant,* S. K. Maitra.

Central Wakf Council, C. Nizamuddin West, New Delhi 110013.

Income-Tax Appellate Tribunal, (Hqrs., Bombay); C.G.O. Bldg., 101, M. Karve Rd., Bombay 400020.

Pres., T. D. Sugla; *Registrar,* G. P. Bajpai; *Benches at:* 23-A, Thornhill Rd., Allahabad 211001; Loknayak Bhawan, N.D.M.C. Complex, Khan Mkt., New Delhi 110003; No. 121, Nungambakkam High Rd., Madras 600034; 225-C, Alepe Court, Acharya J. Bose Rd., Calcutta 700020; Shapoor House, 5/9/22 1-B, Adarsh Nagar, Hyderabad 500483; Central Revenue Bldg., 3rd Flr., Gardinar Rd., Patna 800001; Parshwanath Chambers, Behind Harshid Chambers, Ashram Rd., Ahmedabd 380014; Elengical House, 1/2, Cunningham Rd., Bangalore 560052; Satgamaya, XXIII/375-A, Mahatma Gandhi Rd., Ernakulam, Cochin 682011; 16/3, Old Palasia Rd., Indore 452001; Bungalow No. 41, Sector 2A, Chandigarh 160017; Bank of India Bldg., Kingsway, Nagpur 440001; Link Rd., Badam Bari, Cuttack 753012; Rajasthan Chamber of Commerce & Ind. Bldg., M. I. Rd., Jaipur 302001; Flora House, 46, Napier Town, Jabalpur 482001; 94/A, Mahatma Gandhi Rd., Pune 411001; Oriental Bldg., Fancy Bazar, Gauhati 781001; 8, S. Santokh Singh Rd., Amritsar 143001.

Department of Company Affairs, Shastri Bhavan, 5th Flr., A Wing, Dr. Rajendra Prasad Rd., New Delhi 110001.

Secretary, Deptt. of Company Affairs & Chmn., Company Law Board, C. G. Somiah.

MINISTRY OF PLANNING, Yojana Bhavan, Parliament St., New Delhi 110001.

Minister, P. C. Sethi.

Department of Statistics, Sardar Patel Bhavan, Sansad Mrg., New Delhi 110001.

Secretary, Miss Roma Mazumdar; *Dir.-Genl., Central Statistical Orgn. & Ex-Officio Addl. Secy., Deptt. of Stats.,* Dr. K. C. Seal.

National Sample Survey Organisation *(Field Operations Divn.),* West Block No. 8, Wing 6, Ramakrishnapuram, New Delhi 110066; 43 Regnl. & 116 Sub-Regnl. offices located all over India; 5 Zonal Trg. Centres stationed at Bangalore, Calcutta, Jaipur, Lucknow & Nagpur. (Addresses of other offices can be had from the Hqrs.)

MINISTRY OF RAILWAYS, Rail Bhavan, New Delhi 110001.

Minister, A. B. A. Ghani Khan Choudhury; *Minister of State,* C. K. Jaffer Sharief; *Chairman, Railway Board,* K. T. V. Raghavan; *Financial Commr.,* C. Venkataraman; *Members,* Vacant *(Mechanical),* J. P. Gupta *(Staff),* K. Balachandran; *(Engg.),* C. K. Swaminathan *(Traffic); Advisers,* Vacant *(Intl. Relations),* M. Ramji *(Finance); Dirs.,* Dr. P. C. Bhalla *(Health),* N. K. Chakravarti *(Vigilance),* Suresh Chopra *(Pub. Relations),* P. S. Choudhry *(Mech. Engg.),* Vinod Pal *(Traffic & Tourism),* R. K. Jain *(Plng.),* B. K. Bandopadhyaya *(Transportation),* B. P. Singh *(Coaches),* S. G. K. Mudigunda *(Freight),* K. Subramanian *(Signalling & Telecommunications),* S. S. Gauba *(Stats. & Economics); Secretary, Rly. Board,* A. Johary.

Commission of Railway Safety (See Min. of Tourism & Civil Aviation).

Railway Rates Tribunal, Poonamallee High Rd., Madras 600008.

Research, Designs & Standards Organisation, Manak Nagar, Lucknow 226011. *Director-General,* M. K. Gamkhar; *Sr. Dy. Dir.-Genl.,* K. J. Jagjit Singh.

MINISTRY OF RURAL DEVELOPMENT, Krishi Bhavan, Dr. R. Prasad Rd., New Delhi 110001.

Minister of State, Mrs. Mohsina Kidwai; *Secretary,* Mohinder Singh; *Addl. Secy.,* P. N. Abbi; *Agri. Mktg. Adviser,* G. S. Shukla.

National Institute of Rural Development, Rajendranagar, Hyderabad 500030.

MINISTRY OF SHIPPING & TRANSPORT, Transport Bhavan, Sansad Mrg., New Delhi 110001.

Minister, K. Vijay Bhaskara Reddy; *Minister of State,* Z. R. Ansari; *Secretary,* Prakash Narain; *Chmn., National Shipping Board,* M. R. Krishna; *Addl. Secy.,* P. N. Abraham; *Director-General (Roads Devpt.) & Addl. Secy.,* K. K. Sarin; *Secy., Border Roads Devpt. Board,* R. N. De; *Chief Controller of Chartering:* M. S. Anchan; *Director-Genl. of Border Roads,* J. M. Rai.

Directorate-General of Shipping, Jahaz Bhavan, Walchand Hirachand Mrg., Bombay 400001.

Director-General of Shipping, B. K. Rao; *Sr. Dy. Director-Genl. of Shipping,* Vacant; *Dy. Directors-Genl.,* P. Ghosh, R. Padmanabhan, N. K. Prasad.

Technical Advisers

Nautical Adviser to the Govt. of India, Vacant; *Chief Surveyor with the Govt. of India,* N. Chakraborty.

Directorate of Marine Engineering Training, P. 19, Taratolla Rd., Calcutta 700088. *Branch:* Hay Bunder Rd., Bombay 400033. *Director,* K. Kishor.

Mercantile Marine Department, Old C. G. O. Bldg., South Wing, M. Karve Mrg., Bombay 400020. *Other Offices:* Marine House, Hastings, Calcutta 700022; Old High Court Bldgs., Madras 600001; 57, Harbour Approach Rd., Visakhapatnam 530035; Willingdon Island, Cochin 682003; "Deep Bhavan", Pandit Nehru Mrg., Jamnagar 361001; Mormugao 403803, Goa; Harbour Bungalow, 334, South Beach Rd., Tuticorin 628001; Supply Lines, Port Blair (Andamans).

Indian Register of Shipping, 72, Maker Towers 'F', 7th Flr., Cuffe Parade, Colaba, Bombay 400005. *Chmn.,* Capt. J. C. Anand; *Chief Executive,* S. R. Khare; *Secy.,* B. K. Thakkar.

Lighthouses and Lightships Department, East Block 10, Level IV, Ramakrishnapuram, New Delhi 110066.

Dir.-Genl. of Lighthouses & Lightships and Chief Inspector of Lighthouses in India, B. S. Srivasthan; *Dy. Dirs.-Genl.,* C. V. Chaubal, I. G. Arjunani *(Calcutta);* S. L. Kapoor *(Jamnagar); Admve. Officer,* T. R. Visvanathan.

Seamen's Welfare Office, Nou Bhavan, R. Kamani Marg, B. Estate, Bombay 400038.

Principal Seamen's Welfare Officer, K. C. Subramanian. CALCUTTA—Marine House, Hastings, Calcutta 700022. *Principal Seamen's Welfare Officer,* B. R. C. Prasad. MADRAS—Old High Court Bldg., Madras 600001.

Shipping Development Fund Committee, 608, Kailash, K. Gandhi Mrg., New Delhi 110001.

MINISTRY OF SOCIAL WELFARE, Shastri Bhavan, Dr. Rajendra Prasad Rd., New Delhi 110001.

Minister of State, Smt. Sheila Kaul; *Dy. Minister,* P. K. Thungon; *Secretary,* R. P. Khosla.

Central Welfare Board, Jeevan Deep Bldg., New Delhi 110001. *Chmn.,* Smt. Sushila Rohatgi.

MINISTRY OF STEEL MINES, Udyog Bhavan, New Delhi 110011.

Minister of State, N. K. P. Salve.

Department of Steel

Secretary, Lovraj Kumar; *Addl. Secy. & Financial Adviser,* D. N. Ghosh.

Iron & Steel Control Organisation, 234/4, Acharya Jagdish Bose Rd., Calcutta 700020.

Iron & Steel Controller, D. K. Ghosh.

Steel Authority of India Ltd. (SAIL), Ispat Bhawan, Lodi Rd., New Delhi 110003.

Chmn., S. Samarapungavan; *Vice-Chmn.,* Dr. Gokul Mukherjee; *Mg. Dirs.,* V. Subramony *(Rourkela Steel Plant),* N. K. Mitra *(Bhilai Steel Plant),* D. Mukherjee *(Durgapur Steel Plant),* D. R. Ahuja *(Bokaro Steel Plant),* M. F. Mehta *(Indian Iron & Steel Co. Ltd.),* K. R. Sangameswaran *(Visakhapatnam Steel Project); Exec.-Dirs.,* M. C. De Tarafdar *(Alloy Steels Plant, Durgapur),* A.

A. Raju *(Salem Steel Project)*, *Secy.*, L. A. K. Prasad.

Department of Mines, Shastri Bhavan, New Delhi 110001. *Secretary*, P. K. Basu; *Addl. Secy.* N. K. Panda.

Indian Bureau of Mines, New Secretariat Bldg., Nagpur 440001. *Controller-Genl.*, D. N. Bhargava.

MINISTRY OF TOURISM & CIVIL AVIATION, Sardar Patel Bhavan, Parliament St., New Delhi 110001.

Minister of State, Khurshid Alam Khan; *Secretary*, M. M. Kohli; *Director-General of Civil Aviation*, Air Vice-Marshal C. K. S. Raje; *Director-General of Meteorology*, S. K. Das; *Director-General of Tourism*, Dr. N. K. Sen Gupta.

Air Routes and Aerodromes Directorate, International Airports

Dirs. of Aerodromes, J. N. Manon *(Delhi Airport)*, George Lakra *(Calcutta Airport)*, S. H. Sontake *(Bombay Airport)*, T. R. Chandramouli *(Madras Airport)*.

Regional Controllers of Aerodromes

Regional Controllers, R. I. Singh *(Delhi Regn.)*, C. B. Mech *(Bombay Regn.)*, B. M. Roy *(Calcutta Regn.)*, R. N. Bhatnagar *(Madras Regn.)*.

Commission of Railway Safety, 16-A, Ashok Mrg., Patiala House, Lucknow 226001.

Chief Commissioner of Railway Safety, Suresh Chandra.

MINISTRY OF WORKS & HOUSING, Nirman Bhavan, New Delhi 110011.

Minister, Buta Singh; *Dy. Ministers*, Mohammed Usman Arif, Mallikarjun; *Secretary*, Ramesh Chandra.

Central Public Works Department, Nirman Bhavan, New Delhi 110011.

National Buildings Organisation, 'G' Wing, Nirman Bhavan, New Delhi 110011.

Directorate of Estates, Nirman Bhavan, New Delhi 110011.

SUPREME COURT OF INDIA, Tilak Marg, New Delhi 110001.

Chief Justice of India: Y. V. Chandrachud; *Judges:* Justice P. N. Bhagwati; Justice S. Murtaza Fazal Ali; Justice V. D. Tulzapurkar; Justice D. A. Desai; Justice R. S. Pathak; Justice O. Chinappa Reddy; Justice A. P. Sen; Justice E. S. Venkataramiah; Justice A. Varadarajan; Justice Amarendra Nath Sen; Justice V. Balakrishna Eradi; Justice R. B. Misra; Justice D. P. Madon; Justice S. Mukharji; Justice M. P. Thakkar; Justice R. Mishra; Justice V. Khalid; *Registrar:* R. Subba Rao.

CENTRAL VIGILANCE COMMISSION, No. 3, Dr. Rajendra Prasad Rd., New Delhi 110001.

Central Vigilance Commissioner: R. P. Khanna; *Secy.*, Smt. Kusum Prasad.

COMPTROLLER AND AUDITOR-GENERAL OF INDIA, 10, Bahadur Shah Zafar Marg, New Delhi 110002.

Comptroller & Auditor-General of India, T. N. Chaturvedi; *Dy. Comptroller & Auditor-Genl. of India*, B. Maithreyan; *Addl. Dy. Comptrollers & Auditors-Genl.*, R. K. Chandrasekharan, S. R. Mukerji, R. C. Suri *(also Chairman, Audit Board)*.

ELECTION COMMISSION, Nirvachan Sadan, Ashoka Rd., New Delhi 110001.

Chief Election Commr., K. Trivedi; *Dy. Election Commr.*, B. K. Singh; *Secs.*, K. Ganesan, Dr. R. P. Bhalla.

MONOPOLIES & RESTRICTIVE TRADE PRACTICES COMMISSION, Travancore House, Kasturba Gandhi Marg, New Delhi 110001.

The Monopolies and Restrictive Trade Practices Act, 1969 has been enacted to ensure that the operation of the economic system does not result in the concentration of economic power to the common detriment and to provide for the control of monopolies and the prohibition of monopolistic and restrictive trade practices. The Commission was estasblished in pursuance of the provisions of the Act and it started functioning from August 6, 1970. The Commission inquires into restrictive trade practices on complaints from trade or consumers' associations having membership of twenty-five persons or more, upon references made to it by the Central Government or the State Government or upon applications made to it by the Registar of Restrictive Trade Agreements and also suo-moto upon its own knowledge or information. It inquires into monopolistic trade practices also upon references made to it by the Central Government or upon its own knowledge or information. The Commission further makes inquiries and reports to the Central Government on matters referred to it by the Central Government under various sections dealing with the expansion of existing undertakings, establishment of new ones and matters relating to mergers, amalgamations or takeovers/division of undertaking as well as monopolistic trade practices. The Commission has been vested with the powers of a Civil Court in the enquiries made by it under the Act and it passes final orders in the case of restrictive trade practices. Appeals against the Commission's orders lie with the Supreme Court.

Chairman: Justice S. Madhusudan Rao; *Members:* Dr. P. S. Sanghvi, S. D. Manchanda; *Secy.:* P. K. Mishra.

PLANNING COMMISSION, Yojana Bhavan, Parliament St., New Delhi 110001.

Chairman, Smt. Indira Gandhi; *Dy. Chmn.*, P. C. Sethi; *Members*, Pranab Kumar Mukherjee *(Min. of Finance)*, Mohd. Fazal, Dr. C. H. Hanumantha Rao, Prof. M, G. K. Menon, Prof. A. M. Khusro; *Secretary*, K. V. Ramanathan.

UNION PUBLIC SERVICE COMMISSION, Dholpur House, Shahjahan Rd., New Delhi 110011.

Chairman: Dr. M. L. Shahare; *Members:* Smt. R. O. Dhan, S. R. Mehta, J. R. Bansal, Air Vice Marshal A. K. S. Bakshi, A. M. Abdul Hamid, Dr. K. Venkataramiah, S. Samaddar; *Secy.*, Suresh Mathur.

GOVT. AGENCIES:

Anthropological Survey of India, Indian Museum, 27, J. L. Nehru Marg, Calcutta 700016. *Jt. Dir.*, A. K. Danda; *Regnl. Offices:* Central Regn., 11, Seminary Hills, Nagpur 440006; Southern Regn., Gokulam Rd., Aryalaya, Mysore 570002; North East Regn., Lachumiere, Shillong 793001; North West Regn., Hardwar Rd., Dehra Dun 248001; Andaman & Nicobar Regn., Port Blair 744101; Western Regn., 1, Old Fatehpura, Udaipur 313001, Eastern Regn., Indian Museum, 27, J. L. Nehru Rd., Calcutta 700016; *Sub-Regnl. Office*, Jagdalpur 494001. Bastar Dist.

Archaeological Survey of India, New Delhi 110011. *Director-General*, Dr. M. S. Nagaraja Rao; *Eastern Circle*, Calcutta 700001; *Mid-Eastern Circle*, Patna 800001; *Northern Circle*, Agra 282001; *Delhi Circle*, New Delhi 110003; *N. Western Circle*, Srinagar 190008; *Western Circle*, Vadodara 390009; *Central Circle*, Bhopal 462001; *Southern Circle*, Madras 600009; *South-Eastern Circle*. Hyderabad 500768; *Mid-Southern Circle*, Bangalore 560011; *South-Western Circle*, Aurangabad 431004; *North-Eastern Circle*, Gauhati 781005; *Epigraphy Branch*, Mysore 570005; *Arabic & Persian Epigraphy*, Nagpur 440001; *Excavations Branch I*, Nagpur 440001; *Excavations Branch II*, New Delhi 110001; *Excavations Branch III*, Patna 800001; *Excavations Branch IV*, Bhubaneshwar 751002; *Excavations Branch V*, Vadodara 390009; *Museums Branch*, Calcutta 700016; *Prehistory Branch*, Nagpur 440001; *Chemical Branch*, Dehra Dun; *Horticulture Branch*, Agra 282001; *Building Survey Project*, New Delhi 110003; *Temple Survey Project (North)*, Bhopal 462003; *Temple Survey Project (South)*, Madras 600009.

Botanical Survey of India, Indian Botanic Garden, P.O. Botanic Garden, Howrah 711103.

Director, Dr. S. K. Jain; *Headquarters Labs.: (Ecology, Conservation Cryptogams, Pharmacognocy, Documentation, Publications, Plant Chemistry)*, Howrah; *Central National Herbarium, Howrah; Indian Botanic Garden, Howrah; Central Botanical Laboratory, Howrah; Industrial Section of Indian Museum, Calcutta; Regional Offices: Eastern Circle, Shillong; Central Circle*, Allahabad; *Northern Circle*, Dehra Dun; *Andaman Circle*, Port Blair; *Arid Zone Circle*, Jodhpur; *Western Circle*, Pune; *Southern Circle, Coimbatore; Arunachal Field Station*, Itanagar;

Sikkim Himalayas Station, Gangtok.

ern Circle, Dehra Dun; Andaman Circle, Port Blair; Arid Zone Circle, Jodhpur; Western Circle, Pune; Southern Circle, Coimbatore; Arunachal Field Station, Itanagar; sikkim Himalayas Station, Gangtok.

Department of Explosives, Old High Court Bldgs., Civil Lines, Nagpur 440001.

Chief Controller of Explosives, B. R. Dave; **East Circle:** 8, Esplanade East, Calcutta 700069; **West Circle:** Industrial Assurance Bldg., 1st Floor, Opp. Churchgate Stn., Bombay 400020; **South Circle:** Block No. 6, 1st Flr., Shastri Bhavan, 35, Haddows Rd., P.O. Cathedral, Madras 600006; **North Circle:** 7, Old Idgah Colony, Behind Mayur Cinema, Agra 282001.

Survey of India, Hqrs., P. Box 37, Dehra Dun 248001.

Surveyor-General, Maj.-Gen. G. C. Agarwal; **Map Publication Directorate,** Hathibarkala, Dehra Dun; **Northern Circle:** 17, E. C. Rd., Dehra Dun; **Geodetic & Research Branch,** 17, E. C. Rd., Dehra Dun; **Eastern Circle:** 13, Wood St., Calcutta 700016; **Southern Circle:** 81, Richmond Rd., Bangalore 560025; **Centre for Survey Trg. & Map Prodn.,** Hyderabad 500039; **Pilot Map Prodn. Plant,** Hyderabad 500039· **Survey Trg. Instt.,** Hyderabad 500974; **Research & Development Directorate,** Hyderabad 500039; **South Central Circle,** Hyderabad 500027; **Western Circle,** Jaipur 302001; **Central Circle,** Jbalpur 482001; **North Western Circle,** Chandigarh 160026; **North Eastern Circle,** Shillong 793001; **Directorate, Survey (Air),** New Delhi 110066; **South Eastern Circle,** Tankapani Rd., Bhubaneswar 751002.

Zoological Survey of India, 34, Chittaranjan Ave., Calcutta 700012. *Dir.,* B. K. Tikader; *Western Regnl. Stn.,* 1182/2, Fergusson College Rd., Pune 411005; *Southern Regnl. Stn.,* 100, Santhome High Rd., Madras 600028; *Marine Biological Stn.,* 12, Leith Castle St., Madras 600028; *Northern Regnl. Stn.,* 13, Subhas Rd., Dehra Dun 248001; *Eastern Regnl. Stn.,* Fruit Garden, Risa Colony, Shillong 793003; *Desert Regnl. Stn.,* 3rd St., 'B' Rd., Paota Lines, Jodhpur 342006; *Central Regnl. Stn.,* 1544/A, Napier Town, Jabalpur 482002; *Gangetic Plains Regnl. Stn.,* 128 A, Block 'B', Rd. No. 7, Rajendra Nagar, Patna 800016; *High Altitude Zoology Field Stn.,* Mohinder Bhavan, Rajgarh Rd., Solan; *Andaman & Nicobar Regnl. Stn.,* Middle Point, Port Blair 744101; *Freshwater Biological Stn.,* 3-5-907–2, Himayat Nagar, Hyderabad 500029; *Kakdwip Field Stn.,* Kakdwip 743347, 24, Parganas (W. Bengal); *Estuarine Biological Stn.,* 504, Hill Patna, Berhampur 760005; *Western Ghat Regnl. Stn.,* 2/355, Eranhipalam, East Nadakkar, Calicut 673006. *Zoological Survey of India Idduki Project Field Stn.,* 36/802, Karakkamuri Cross Rd., Cochin 682011; *Arunachal Pradesh Field Stn.,* A/39-A Sector, New Itanagar.

India Meterorological Department, Mausam Bhavan, Lodi Rd., New Delhi 110003.

Director-General of Meteorology, S. K. Das; *Addl. Dirs.-Genl.,* H. M. Choudhury *(Research),* Dr. R. P. Sarker *(Services).*

Indian Institute of Astrophysics, Bangalore 560034.

Indian Institute of Geomagnetism, Colaba, Bombay 400005.

Indian Institute of Tropical Meteorology, Ramdurg House, Ganeshkhind Rd., Pune 411005. An autonomous research orgn. specialising in studies on tropical meteorology and allied fields.

STATES ADMINISTRATIVE PERSONNEL

(Corrected up to August 10, 1984. Further changes, if any, appear in "Late Particulars" at the end of the book.)

1 **ANDAMAN & NICOBAR ISLANDS,** Port Blair. *Lt-Governor,* M. Manoharlal Kampani; *Chief Secy.,* R. D. Kapoor.

2 **ANDHRA PRADESH,** Hyderabad.

Governor: Ram Lal.

Ministers

Chief Minister in charge of Gen. Adm., Law & Order, Home, Major Industries, N. T. Rama Rao; *Finance, Comml. Taxes, Energy,* N. Bhaskara Rao; *Roads & Bldgs., PWD, Irri.,* N. Srinivasulu Reddy; *Revenue, Land Reforms & Civil Supplies,* P. Mahendranath; *Transport,* S. Satyanarayana; *Panchayati Raj & Rural Devpt.,* K. Ramachandra Rao; *Edn.,* P. Ananda Gajapati Raju; *Agri., & Co-opn.,* K. Jana Reddy; *Health,* S. Ramamuni Reddy.

Ministers of State

Scheduled Castes, Scheduled Tribes, Backward Classes, Welfare, Social Welfare, Mrs. K. Pratibha Bharati; *Law & Municipalities,* Y. Ramakrishnudu; *Excise,* T. Jeevan Reddy; *Tourism & Wakfs,* M. D. Shakir; *Inf., Khadi & Village Industries, Film Ind.,* Ch. Venkatarama Jogayya.

Secretariat, Hyderabad 500004.

Chief Secretary, Vacant.

Hyderabad Urban Development Authority, 1-8-323, Paight Palace, Opp. Police Lines, Begumpet, Hyderabad 500016.

High Court, Hyderabad 500266.

Chief Justice, K. Ramachandra Rao; *Judges,* P. Chennakesav Reddy, V. Madhava Rao, K. Punnayya, A. Raghuvir, K. Jayachandra Reddy, B. P. Jeevan Reddy, Smt. K. Amareswari, P. A. Choudhary, P. Ramachandra Raju, G. Ramanujulu Naidu, A. Seetharama Reddy, P. Rama Rao, C. Sriramulu, T. Lakshminarayana Reddy, P. Kodandaramayya, K. Ramaswamy, M. Jagannadha Rao, Sardar Ali Khan, A. Lakshmana Rao, Upendra Lal Waghray, Y. V. Anjaneyulu; *Registrars,* P. Srirama Raju *(Admn.),* D. Surya Rao *(Judl.).*

South Central Railway, Rail Nilayam, Secunderabad 500371.

General Manager, P. N. Mohile; *Addl. Gen. Manager,* Vacant; *Sr. Dy. Gen. Manager & Chief Vigilance Officer,* P. Sathiapalan; *Chief Optg. Supdt.,* C. M. Khosla; *Chief Comml. Supdt.,* J. Rajagopala Chari; *Chief Engr.,* R. Balasubramanian; *Chief Mech. Engr.,* Gulshan Rai; *Chief Electl. Engr.,* A. J. Gurushankar; *Chief Pub. Relations Officer,* Vacant.

3 **ARUNACHAL PRADESH,** Itanagar.

Lt. Governor: T. V. Rajeshwar.

Ministers

Chief Minister, Gegong Apong; *Agriculture,* Khapriso Krong; *Finance,* Tengam Ngemu; *Supply,* Tadar Tang; *PWD,* Tshering Tashi; *Health,* Tadak Dulom.

Dy. Ministers

Rural Works, Kameng Dolo; *Forests,* Haijen Ponglaham.

Secretariat

Chief Secretary, R. K. Ahooja.

4 **ASSAM,** Dispur, Gauhati 781006.

Governor: Bhishma Narain Singh.

Ministers

Chief Minister, Hiteswar Saika. *Other Ministers:* Mohammed Idris, Syeda Anwara Taimur, Keshob Chandra Gogoi, Ranendra Narayan Basumatari, Upen Das, Ghani Ram Rongpi, Jagannath Sinha, Baharul Islam, Mukut Sharma, Jagadish Chandra Chowdhury, Rameshwar Dhanwar, Govinda Chandra Langthasa.

Ministers of State

Padam Bahadur Chauhan, Kabir Chandra Rai Pradhani.

Deputy Minister

Lakhsi Prasad Hazarika.

Secretariat

Chief Secretary, Vacant.

Gauhati High Court (High Court of Assam, Nagaland. Meghalaya, Manipur & Tripura), Gauhati 781001.

Chief Justice, T. S. Misra; *Judges:* Kiranmay Lahiri, N. Ibotombi Singh, K. N. Saikia, B. L. Hansaria, S. M. Ali, T. C. Das, T. N. Singh: *Registrars*, Nripen Das *(Judl.)*, K. V. Gopa-Lachari *(Admn.)*, *Advocates-General:* S. N. Bhuyan *(Assam)*; J. P. Bhattacharjee *(Nagaland)*, R. K. Monisena Singh *(Manipur)*, D. P. Kundu *(Tripura)*, N. M. Lahiri *(Meghalaya)*.

North-East Frontier Railway, Maligaon, Gauhati 781011.,

General Manager, C. M. Malik; *Addl. General Managers*, D. P. Sharma *(O)*, H. C. Srivastava *(EC)*; *Sr. Dy. Gen. Manager*, S. R. Ram Das Iyer; *Dy. Gen. Manager (G)*; K. Ananthanarayanan; *Chief Optg. Supdt.*, S. K. Basu; *Chief Comml. Supdt.*, S. S. Rana; *Chief Engr.*, M. Dinamoni; *Chief Elect. Engr.*, R. K. Srivastava; *Chief Mech. Engr.*, F. S. Dhaliwal; *Chief Pub. Relations Officer*, G. S. Banerjee.

BIHAR, Patna.

Governor: Dr. A. R. Kidwai.

Lok Ayukta: S. N. P. Sinha.

Ministers

Chief Minister in charge of Home, Finance, Personnel, Plng., etc., Chandra Shekhar Singh; *Revenue & Land Reforms, Relief & Rehab., Food & Supply, etc.*. Lahten Chaudhury; *Urban Devpt., Parl. Affairs, etc.*, Ramashreya Pd. Singh; *Edn., Minor Irri.*, Prof. Nagendra Jha; *Co-opn.*, Buddha Deo Singh; *P.W.D., Transport*, Chaudhury Md. Salauddin; *Excise Forests*, Dr. Umeshwar Pd. Verma; *Ind., Tech. Edn.*, Laliteshwar Pd. Sahi; *Labour & Emp., Trg.*, Pravawati Gupta; *Health & Family Welfare*, Dilkeshwar Ram; *Agri.*, Ram Jayapal Singh Yadav.

Ministers of State

Irri., Krishnandan Jha; *Health & Family Welfare*, Braj Kishore Singh; *Agri., Animal Husb., Fisheries*, Bandi Shankar Singh; *Revenue & Land Reforms*, Mahabir Paswan; *Plng. & Devpt.*, Bandi Oraon; *P.W.D.*, Awadh Bihari Singh; *Ind., Sugar*, Prenu Narayan Garhwal; *Minor Irri.*, Lyendra Tiru; *Labour & Trg.*, Madan Pd. Singh; *Food & Supply, etc.*, Moidur Rahman; *Mining*, Mrs. Muktidayani Simprai; *Urban Devpt.*, Khalid Rashid Saffa. (The Ministry has since been expanded by the induction of 16 more Ministers.)

Secretariat

Chief Secretary, S. K. Mukherjee; *Addl. Chief Secy.*, J. C. Kundra.

Bihar State Khadi & Village Industries Board, East Gandhi Maidan, Patna 800001.

Patna Industrial Area Devpt. Authority, Udyog Bhavan, Patna 800004.

High Court, Patna 800004.

Chief Justice: S. S. Sandhawalia; *Judges:* Bhagwati Prasad Jha, Hari Lal Agrawal, Lalit Mohan Sharma, Sushil Kumar Jha, Nagendra Prasad Singh, Sunil Kumar Choudhuri, Uday Sinha, Syed Ali Ahmad; Birendra Prasad Sinha, Brishketu Saran Sinha, Shivanugarh Narain, Prem Shankar Sahay, S. S. Hasan, Satyeshwar Roy, Munishwar Prasad Varma, Binoda Nand Singh, Nazir Ahmed, Yadu Nath Sharan Singh, Ram Chandra Prasad Sinha, Ashwini Kumar Sinha, Surendra Narain Jha, Satya Brata Sanyal, Krishna Ballabh Sinha, Anand Prasad Sinha, Ram Naresh Thakur, Prabha Shanker Mishra, Bageshwari Prasad, Griyaghey, Madan Mohan Prasad, Abhiram Singh, Ram Nandan Prasad, Syed Haider Shaukat Abidi, Udai Pratap Singh; *Adhoc Judge*, Chaudhary Sia Saran Sinha. *Registrar*, Syed Jarrar Hyder.

DELHI, Delhi.

Lt. Governor: P. G. Gavai.

Secretariat

Chief Secretary, R. M. Aggarwal.

Delhi Development Authority, D-1, Vikas Bhavan, Indraprastha Estate, New Delhi 110001.

High Court, New Delhi 110001.

Chief Justice. Prakash Narain; *Judges*, Rajindar Sachar, Dalip K. Kapur, T. P. S. Chawla, Avadh Behari Rohtagi, R. N. Aggarwal, H. L. Anand, Yogeshwar Dayal, S. S. Chadha, M. L. Jain, S. Ranganathan, Ms. Leila Sethi, N. N. Goswamy, Sultan Singh, S. B. Wad, J. D. Jain, Charanjit Talwar, G. R. Luthra, D. R. Khanna, B. N. Kirpal; G. C. Jain; *Addl. Judges*, Jagdish Chandra, Hukam Chand Goel, Malik Shaif-ud-Din, Devendra Pratap Wadhwa; *Registrar:* Vacant.

Northern Railway, State Entry Rd., New Delhi 110001.

General Manager, R. P. Singh; *Addl. Gen. Manager*, P. C. Gupta *(Operations)*; *Chief Comml. Supdt.*, S. K. Khanna; *Chief Engr.*, S. M. Vaish; *Chief Electl. Engr.*, C. P. Gupta; *Chief Mech. Engr.*, D. M. Lal; *Chief Optg. Supdt.*, Arjun Krishna; *Chief Pub. Relations Officer*, S D. Chand.

GOA, DAMAN & DIU, Panaji.

Lt. Governor *(Concurrently Administrator of Dadra & Nagar Haveli)*, Vacant.

Ministers

Chief Minister in charge of Home, Transport, Personnel & Admve. Reforms, Pub. Health, Tourism, Fisheries, etc., Pratapsingh Rane; *Inds. & Mines, Inland Waterways, Labour & Emp., etc.*, A. N. Naik; *Agri., Animal Husb., Panchayati Raj, Comm. Devpt., etc.*, Francis C. Sardinha; *Edn., Food & Civil Supplies, Social Welfare, etc.*, H. N. Prabhu Zantye; *Law & Judiciary, Leg. Affairs, Revenue, Co-opn.*, Hassan Haroon; *Sports, Protocol, etc.*, Francisco Monte Cruz.

Secretariat

Chief Secretary, K. K. Mathur.

GUJARAT, Gandhinagar 382010.

Governor: B. K. Nehru.

Ministers

Chief Minister in charge of Gen. Adm., Industries, Mines & Power, Law and Justice, Information, Urban Devpt., Madhavsinh Fulsinh Solanki; *Finance, Plng., Labour Emp., Prohibition & Excise*, Sanatkumar Maganlal Mehta; *Home Deptt. (excluding Inf. & Tourism), Edn., & Parl. Affairs*, Prabodhbhai Chimanlal Raval; *Irrigation, Tribal Welfare & Forests*, Amarsinh Bhilabhai Chaudhary; *Food & Civil Supplies, Health & Family Welfare, Sports, Physical Edn., etc.*, Manoharsinhji Pradyumansinhji Jadeja; *Buildings & Communications, Housing*, Khodidan Bhimji Zula.

Ministers of State

Health & Family Welfare, Tourism, Smt. Kokilaben Hariprasad Vyas; *Transport & Ports*, Mohamedbhai Gulammohiyuddin Surti; *Social Welfare, including Harijan Welfare*, Devjibhai Bhikhabhai Vanvi; *Finance & Plng.*, Hariharbhai Umiyashanker Khambholja; *Panchayats, Co-opn. & Irrigation*, Maganbhai Bhukhanbhai Solanki.

Deputy Ministers

Edn., Balvantray Bachulal Manvar; *Social Welfare*, Pursottambhai Ravjibhai Makwana; *Tribal Welfare*, Lalitkumar Bhagwanbhai Patel; *Law & Justice & Fisheries*, Mohammedhusain Karimbhai Baloch; *Prohibition & Excise, Harijan Welfare & Small Savings*, Lalitbhai Dhanjibhai Parmar; *Labour & Emp.*, Chandrakant Nandlal Patel.

Secretariat

Chief Secretary: K. Sivaraj.

Gujarat Labour Welfare Board, Outside Raipur Gate, Ahmedabad 380022.

Gujarat Slum Clearance Board, Govt. Bungalow No. 30, Shahibaug, Ahmedabad 380004.

Gujarat Water Supply & Sewerage Board, Gandhinagar 382016.

High Court, Navrangpura, Ahmedabad 380009.

Chief Justice, P. Subramonian Poti; *Judges*, B. K. Mehta, N. H. Bhat, A. M. Ahmadi, R. C. Mankad, S. B. Majmudar, G. T. Nanavati, V. V. Bedarkar, D. H. Shukla, S. L. Talati, D. C.

Gheewala, I. C. Bhatt. A. S. Qureshi, R. J. Shah, A. P. Ravani, S. A. Shah, M. B. Shah; *Addl. Judges*, J. P. Desai, R. A. Mehta, B. S. Kapadia; *Registrar*, C. C. Morakhia.

9 **HARYANA,** Chandigarh.

(Chief Commissioner, Chandigarh, K. K. Banerjee.).

Governor: S. M. H. Burney.

Ministers

Chief Minister in charge of G. A. Medical Edn., Home (C.I.D.), Adm. of Justice, etc., Bhajan Lal; *Irri. & Power, Parl. Affairs, etc.*, Shamsher Singh Surjewala; *Animal Husb. etc.*, Harpal Singh; *Food & Supplies, etc.*, Rajendra Singh; *Inds., Indl. Trg.*, Mrs. Shakunṭala Bhagwaria; *Co-opn., Dairy Devpt.*, Birendra Singh; *Transport*, Col. Ram Singh; *Finance & Plng.*, Katar Singh; *Housing, Jails, etc.*, Kalyan Singh; *Excise & Taxation*, Brij Mohan.

Ministers of State

Animal Husb., Lal Singh; *Labour & Emp.*, Rajesh Kumar; *Transport*, Chandra Singh; *Wakf & Fisheries*, Rahim Khan; *Edn., Languages, etc.*, Jagdish Nehra; *Tech. Edn.*, Lachhman Dass Arora.

Secretariat

Chief Secretary: P. P. Caprihan.

High Court (Given under Punjab).

10 **HIMACHAL PRADESH,** Shimla.

Governor: Hokishe Sema.

Ministers

Chief Minister in charge of Home, Personnel, etc., Vir Bhadra Singh; *Pub. Works*, Sukh Ram; *Revenue, etc.*, Shiv Kumar; *Agriculture, Horticulture, Fisheries*, Guman Singh; *Industries*, Sat Mahajan; *Forests, Tribal Devpt. etc.*, Devi Singh; *Irri., Pub. Health, Edn., etc.*, Sant Ram; *Co-operation, etc.*, J. B. Lal Khachi.

Secretariat

Chief Secretary in charge of Personnel, Home, Gen. Admn., Vigilance, Secretariat Admn., Tourism & Hospitality, K. C. Pandeya.

High Court, 'Ravenswood', Shimla 171001.

Chief Justice, P. D. Desai; *Judges:* Hira Singh Thakur, Tilak Raj Handa, Vyom Parkash Gupta.

JAMMU & KASHMIR, Srinagar.

Governor: Jagmohan.

Ministers

Chief Minister, G. M. Shah; *Dy. Chief Minister*, D. D. Thakur; *Other Ministers*, Hissam-Ud-Din Bandey, Talib Hussain, Munshi Habibullah, Ali Mohammad Naik, Mohammad Dilawar Mir, Sonaullah Dar, Mirza Mehboob Beg, Sheikh Abdul Jabbar, Mrs. Khem Latta Wakhloo, Mohammad Khalil Johar, Ghulam Hassan Mir, Hakim Mohammad Yaseen, Mrs. Gurbachhan Kumari Rana.

Minister of State

Food, Supplies & Transport, Jagjiwan Lal.

Secretariat

Chief Secretary, Noor Mohd.

High Court, Srinagar 190001.

Chief Justice, V. Khalid; *Judges*, Dr. Adarsh S. Anand, G. M. Mir; *Registrar*, G. A. Kuchhai; *Advocate-General*, S. A. Salaria.

12 **KARNATAKA,** Bangalore.

Governor: A. N. Banerjee.

Ministers

Chief Minister in charge of Home, Finance, Plng., etc., Ramakrishna Hegde; *Commerce & Industry*, S. R. Bommai; *Pub. Works, Irrigation*, H. D. Deve Gowda; *Rural Devpt. & Panchayat Raj*, Abdul Nazeersab; *Edn.*, B. Rachaiah; *Revenue*, V. L. Patil; *Law & Parl. Affairs etc.*, A. Lakshmisagar; *Power & Excise*, J. H. Patel; *Agriculture*, B. L. Gowda; *Co-operation*, R. L. Jalappa; *Horticulture & Veterinary Services*, Vishwanath Reddy; *Urban Devpt.*, M. Chandrashekar; *Food & Civil Supplies*, G. Basavanappa; *Tourism & Information*, M. Raghupathi.

Ministers of State

Forests, B. A. Jivijaya; *Transport*, R. M. P. Prakash; *Youth Services & Sports*, Dr. Jeevaraj Alva; *Health & Family Welfare*, P. G. R. Sindhia; *Agriculture*, S. Revanna; *Home*, Ramesh Jigajinngi; *Minor Irrigation*, R. N. Lakshmipathi; *Social Welfare*, Raj Vardhan.

Secretariat, Vidhana Soudha, Bangalore 560001.

Chief Secretary, T. R. Satishchandran.

High Court, Atara Kacheri Bldgs., Bangalore 560001.

Chief Justice, V. S. Malimath; *Judges*, K. Jagannatha Shetty, M. S. Nesargi, M. N. Venkatachaliah, M. Rama Jois, K. S. Puttaswamy, P. P. Bopanna, N. Venkatachala, Narayan Rai Kudoor, G. N. Sabhait, N. D. Venkatesh, M. P. Chandrakantarai Urs, M. S. Patil, R. S. Mahendra, K. A. Swami, D. R. Vithal Rao, P. A. Kulkarni, A. K. Laxmeshwar, S. G. Doddakale Gowda, S. R. Rajasekhara Murthy, M. Ramakrishna; *Registrar*, R. C. Ijari; *Advocate-General*, Vacant.

Bangalore Development Authority, Kumara Park West, Bangalore 560020.

Karnataka State Board for Prevention & Control of Water Pollution, Utility Bldg., M. Gandhi Rd., Bangalore 560001.

Karnataka State Khadi & Village Industries Board, 5, Seshadri Rd., Bangalore 560009.

Karnataka State Social Welfare Advisory Board, 149-34, N. H. School Rd., Bangalore 560004.

Water Supply & Sewerage Board, Combined Adm. Bldg. Complex, Bangalore 560009.

13 **KERALA,** Trivandrum.

Governor: P. Ramachandran.

Ministers

Chief Minister in charge of Gen. Adm., Plng., Fisheries, Welfare, etc., K. Karunakaran; *Dy. Chief Minister in charge of Pub. Works, Wakf & Haj Pilgrimage*, K. Avukaderkuttynaha; *Industries, Cement, Iron, Steel, Handloom and Coir*, E. Ahmed; *Transport & Communications, Motor Vehicles*, N. Sundaran Nadar; *Electricity, Museum, Zoo and Archaeology, Posts & Telegraphs, Railways*, R. Balakrishna Pillai; *Food & Civil Supplies*, U. A. Beeran; *Agriculture, Dairy Devpt. etc.*, A. L. Jacob; *Irrigation & Anti-Sea Erosion, Public Health, Engg.*, M. P. Gangadharan; *Education*, T. M. Jacob; *Land Revenue, Housing*, P. J. Joseph; *Co-operation, Rehab., Social Welfare*, M. Kamalam; *Health Ayurveda, Tourism, Devaswoms*, K. P. Ramachandran Nair; *Finance*, K. M. Mani; *Forest, Sports, Animal Husb.*, K. P. Nooruddin; *Comm. Devpt.*, P. K. Velayudhan; *Labour, Emp., etc.*, K. Sivadasan; *Excise, Ports*, N. Sreenivasan; *Panchayats*, C. M. Sundaram; *Home*, Vayalar Ravi

Secretariat

Chief Secretary: R. Gopalaswamy.

Greater Cochin Development Authority, Cochin 682020.

Kerala Khadi & Village Industries Board, Perumthanni, Trivandrum 659008.

Kerala State Board for Prevention and Control of Water Pollution, Kawdiar, Trivandrum 695003

High Court, Ernakulam, Cochin 682031.

Ag. Chief Justice, K. Bhaskaran; *Judges*, T. Chandrasekhara Menon, K. K. Narendran, G. Balagangadharan Nair, S. K. Kader, Dr. T. Kochu Thommen, M. P. Menon, P. C. Balakrishna Menon, U. Lakshminarayan Bhat, K. Sukumaran, K. S. Paripoornan, V. Sivaraman Nair, V. Bhaskaran Nambiar, Kumari M. Fathima Beevi *(Addl.)*; *Registrar:* M. C. Madhavan; *Advocate-General:* P. V. Ayyappan.

14 **MADHYA PRADESH,** Bhopal.

Governor: K. M. Chandy.

Ministers

Chief Minister in charge of Gen. Admn. Home, Energy, Publicity, Etc. Arjun Singh; *Agriculture,* Shiv Bhanu Solanki; *Law & Legislative Affairs, Tourism,* Krishna Pal Singh; *Panchayat & Rural Devpt.,* Vimla Verma; *Finance, Tribal Welfare,* Jhumuk Lal Bhendia; *Animal Husb., Fisheries & Dairy Devpt.,* Dr. Tumanlal; *Minor Irrigation,* Dr. Bhanwar Singh Parte; *Irrigation (Major & Medium Projects),* Digvijay Singh; *Local Govt.,* Kanhaiya Lal Sharma; *Prison, Wakf & Urdu Academy,* Haji Inayat Mohammed; *Pub. Health & Family Welfare,* Revnath Chaure; *Co-operation, Backward Classes Welfare,* B. R. Yadav; *Harijan Welfare & Primary & Secondary Edn.,* Bansilal Dhritlahare; *Forests, Sports & Youth Welfare,* Ajay Narayan Mushran; *Commerce, Industry, Minerals,* Dr. Rajendra Jain; *Housing, Environment,* Smt. Devendra Kumari; *Revenue,* Smt. Muni Prasad Shukla; *Higher Edn.,* Smt. Motilal Vora; *Labour,* Smt. Shyam Sunder Patidar.

Ministers of State

Social Welfare, Smt. Kamla Devi; *Food & Civil Supplies,* Nathuram Ahirwar; *Manpower Plng.,* Durgadas Suryavanshi; *Family Welfare & Public Health,* Tanwant Singh Keer; *Commerce, Industry, Minerals,* Satya Narayan Agrawal; *Agriculture & Backward Classes, Panchayat and Rural Devpt.,* Vitthal Bhai Patel; *Energy, Narmada Valley Devpt.,* Vijay Kumar Patni; *Public Works,* Balendu Shukla; *Tribal Welfare,* Kum. Ganga Potai; *Co-operation,* Vijay Guru; *Transport & Home,* Bharat Singh; *Forests,* Mahesh Joshi; *Religious Trusts & Endowments, School Edn.,* Harihar Prasad Sharma; *Harijan Welfare,* Bapulal Molviya; *Housing & Environment,* Chandra Kumar Bhanot; *Major & Medium Irrigation Projects,* Pratap Singh Bhaghel.

Deputy Ministers

Publicity, G.A.D. & Aviation, Captain Jaipal Singh; *School Edn.,* Mohanlal; *Plng., Economics & Statistics,* Jaswant Singh Raghuvanshi; *Sports & Youth Welfare,* Shiv Pratap Singh.

Parliamentary Secretaries, Maksudanlal Chandrakar, Kantilal Bhupia, Jivanlal Sanu.

Secretariat

Chief Secretary, Bramha Swaroop.

High Court, Jabalpur 482007.

Chief Justice: G. Ramanujam; *Judges,* G. L. Oza, J. S. Verma, C. P. Sen, S. S. Sharma, B. C. Varma, S. K. Seth, Fazian Uddin, M. D. Bhatt, K. N. Shukla, K. K. Adhikari, G. C. Gupta, Kaushal Varma, Kashilal Srivastava; *Addl. Judges:* Prakash Pathak, K. M. Agrawal, Rampal Singh, Sachidanand Singh, R. K. Verma, Mazhar Ali Shah, V. D. Gyani, Brijmohan Lal. *Indore Bench:* G. G. Sohani; P. D. Mulye, C. P. Singh, R. K. Vijayvargiya; *Gwalior Bench:* U. N. Bhachawat, R. C. Shrivastava, N. K. Singh.

15 **MAHARASHTRA,** Bombay.

Governor: Air Chief Marshall I. H. Latif (Retd.).

Lok Ayukta of Maharashtra: Justice N. D. Kamat; **Upa Lok Ayukta,** S. P. Mohoni. *Office:* Bungalow No. A-4, Madame Cama Road, Bombay 400032.

Ministers

Chief Minister in charge of Gen. Adm., Home, Inf. & Pub. Relations, Urban Land Devpt., etc., Vasantrao B. Patil; *Labour, Transport, Aukaf & Jails,* Prof. S. M. I. Aseer; *Rural Devpt.,* Prataprao B. Bhosale; *Pub. Works,* Ramprasadji V. Borade; *Revenue, Rehab., Leg. Affairs, Ports, Housing, Fisheries & Khar Lands, etc.,* Shantaram G. Gholap; *Energy, Prohibition & Excise,* Dr. Baliram W. Hiray; *Ind., Technl. Edn., Dairy Devpt., & Animal Husb.,* Sudhakar R. Naik; *Forests & Tribal Welfare,* Swarupsingh; *Food, Civil Supplies, Social Welfare,* Mrs. Pratibha D. Patil; *Irrigation, Law & Judiciary, Co-opn., CADA,* Shivajirao B. Patil (Nilangekar), *Pub. Health, Family Welfare, Medical Edn. & Drugs,* Dr. (Mrs.) Lalita Rao; *Finance, Plng., Cult. Affairs & Tourism,* Sushilkumar S. Shinde; *Employment Guarantee Scheme, Agriculture & Horticulture,* N. N. Yambadwar.

Ministers of State

Housing, Spl. Assistance, Prohibition & Excise, Abdul Azim Abdul Hamid; *Urban Devpt., Industries,* Kalappa B. Awade; *Pub. Works, Leg. Affairs,* Mrs. Yashodara B. Bajaj; *Gen. Adm., Home, Inf. & Pub. Relations, Transport,* Shivajirao B. Deshmukh; *Gen. Adm., Home, Inf., Public Relations,* Vilasrao Deshmukh; *Sports & Youth Welfare,* Arun V. Divekar; *Emp. Guarantee Scheme, Tech. Edn. Trg. & Emp.,* Ganesh N. Dudhgaonkar; *Agri. & Horticulture,* Raosaheb B. Jamkar; *Protocol & Pub. Health etc., Aukaf,* Mohammed A. Husain Khan; *Law & Judiciary, Labour,* Madhukar G. Kimmatkar; *Edn.,* Mrs. Parvati G. Malgonda; *Tribal Welfare & Social Welfare,* Arjun T. Pawar; *Irri. & CADA,* Vijaysingh S. Mohite-Patil; *Labour (Greater Bombay), Jails,* Satish M. Pednekar; *Co-opn.,* Abhaysingh Raje Bhonsale; *Revenue, Khar Lands, Fisheries, Ports, Medical Drugs & Legis. Affairs,* B. A. Sawant; *Tourism & Energy, etc.,* Yeshwantrao G. Sherekar; *Rural Devpt.,* Bajirao N. Shinde; *Dairy Devpt. & Animal Husb., Rehabilitation,* Anantrao N. Thopte; *Plng., Family Welfare,* Chandrakant Tripathi; *Food, Civil Supplies, Forests, etc.* Surendra C. Bhuyar.

Secretariat, Mantralaya, Bombay 400032.

Chief Secretary, Vacant; *Addl. Chief Secretary,* B. K. Halve; *Spl. Secy. (Personnel),* V. T. Chari; *Secy. (A. R. & O. & M.),* V. Chary; *Secy. & Dir., Admve. Staff Coll. & Chief Protocol Officer,* P. P. Mahana; *Secs.,* B. K. Chougle *(Spl.—Home—L. & O.);* A. D. Samant *(Transport);* K. B. Srinivasan *(Revenue);* P. V. Nayak *(Forests & Rehab.);* J. G. Kanga *(Inds.);* M. R. Natarajan *(Energy);* John Innocent *(Labour, Technl. Edn. & Emp.);* S. S. Tinaikar *(Edn.);* S. S. Saxena *(ADF);* K. Rajan *(Agri.);* A. M. Nimbalkar *(Co-opn.);* Vijay Singh *(Food & Civil Supplies);* N. Raghunathan, M. R. Kolhatkar *(Finance);* L. N. Doshi *(Housing);* B. N. Bahadur *(Social Welfare, Cult. Affairs, Sports & Tourism);* V. Srinivasan *(Pub. Health);* N. R. Ranganathan *(Urban Devpt.);* Smt. Shanta Shastri *(Medical Edn. & Drugs);* S. G. Daithankar, P. Subramaniam *(Edn., Rural Devpt.);* S. S. Hate *(Horticulture, Social Forestry);* N. H. R. Hynniewta *(Tribal Devpt. & also Tribal Devpt. Commr.);* V. S. Rane, R. T. Atre *(Pub. Works);* P. R. Gandhi, M. D. Deshmukh *(Irrigation);* B. V. Chavan, D. N. Chaudhuri *(Law & Judiciary).*

Bombay Metropolitan Regn. Devpt. Authority, Griha Nirman Bhavan, 5th Flr., Bandra (East), Bombay 400051.

Housing, Urban Renewal & Ecology Board, Bombay Metropolitan Regn. Development Authority, Griha Nirman Bhavan, 5th Flr., Bandra (East), Bombay 400051.

Maharashtra Pollution Control Board, Army Navy Bldg., 149, M. Gandhi Rd., Bombay 400039.

Maharashtra State Khadi & Village Industries Board, 19–21, Manordas St., Bombay 400001.

Bombay Port Trust, Shoorji Vallabdas Marg, Bombay 400038.

High Court, Mayo Rd., Bombay 400032.

Chief Justice, K. Madhava Reddy; *Judges:* M. H. Kania, S. K. Desai, B. A. Masodkar, C. S. Dharmadhikari, P. S. Shah, D. M. Rege, R. L. AAggarwal, B. Lentin, P. B. Sawant, B. C. Gadgil, A. A. Ginwala, R. A. Jahagirdar, S. C. Pratap, S. P. Bharucha, Smt. Sujata V. Manohar, M. L. Pendse, S. P. Kurdukar, D. N. Mehta, V. S. Kotwal, M. S. Jamdar, M. R. Waikar, S. G. Manohar, D. B. Deshpande, V. A. Mohta, N. K. Parekh, S. W. Puranik, S. J. Deshpande, M. M. Qazi, G. M. Khandekar, Dr. G. F. Couto, S. N. Khatri, H. W. Dhabe, A. D. Tated, H. H. Kantharia, G. A. Paunikar, H. D. Patel, V. V. Vaze, G. D. Kamat, M. S. Deshpande; *Prothonotary & Sr. Master (Original Side),* D. B. Khade; *Registrar,* S. M. Daud; *Advocate-General,* A. V. Sawant; *Sheriff of Bombay,* Old. Sectt. Bldg., Bombay 400032, M. L. Apte; *Dy. Sheriff of Bombay,* S. T. Balimane.

Maharashtra Rajya Police Mukhyalaya (Office of the Director General of Police), Old Council Hall, S. Bhagat Singh Mrg., Bombay 400039.

Director-General & Inspector-General of Police, K. P. Medhekar; *Spl. Inspectors-General of Police*, M. G. Katre ((*Law & Order*), S. S. Jog (*Admn.*); *Addl. Inspector-General of Police*, V. A. Deshmukh; *Dy. Inspector-General of Police, Plng. & Co-ordn.*, Sudhakar Dev.; *P.R.O.*, P. M. Sawant.

Office of the Director, Vigilance, Anti-Corruption & Prohibition Intelligence Bureau and Spl. Inspector-General of Police, M. S., Crescent House, 19, Walchand Hirachand Marg, Ballard Estate, Bombay 400038.

Dir. Vigilance, A.C. & P.I. Bureau and Inspector-General of Police, S. M. Paranjpe; *Addl. Commr. of Police—Dy. Inspector-General of Police*, Gyan Chand Verma.

Greater Bombay Police Force, Dr. D. Naoroji Rd., Opp. Jyotiba Phule Market, Bombay 400001.

Commissioner of Police, J. F. Ribeiro; *Addl. Commrs. of Police:* S. V. Bhave (*Adm.*), N. C. Venkatachalam (*Crime*), A. M. Mistry (*E.C.*); *Dy. Commrs. of Police*, T. Singarvel, V. N. Deshmukh, B. P. Ram, Chawnekar, M. V. Rajadhyaksha, R. S. Sharma, R. S. Negi, P. K. Joshi, Y. C. Pawar, C. S. Azad, S. S. Vagal, Sanjeev Dayal, Smt. Sridevi Goyal, N. F. Kernan.

Directorate-General of Information & Public Relations, New Administrative Bldg., 17th Flr., West Wing, Opp. Mantralaya, Bombay 400032.

Director-General of Information & Pub. Relations, M. R. Patil.

Maharashtra State Road Transport Corporation, Maharashtra Vahatuk Bhavan, Dr. A. Nair Rd., Bombay 400008.

Chairman, N. V. Sunder Raman, *V. Chmn. & Gen. Manager*, R. C. Sinha; *Pub. Relations Officer*, Shashikant Gupte; *Secy.*, B. G. Wavikar.

Directorate of Economics and Statistics, D. D. Bldg., Old Custom House, Bombay 400023. *Dir.*, S. M. Vidwans.

Office of the Dairy Development Commissioner, Barracks, Opp. 'Yogakshema', Jeevan Bima Mrg., Bombay 400020

Office of the General Manager, Greater Bombay Milk Scheme, Worli Dairy, Bombay 400018.

Public Service Commission, Bank of India Bldg., Mahatma Gandhi Rd., Bombay 400023.

Govt. of India Tourist Office, 123, Maharshi Karve Rd., Bombay 400020.

B.E.S.&T. Undertaking, BEST House, Bombay 400039.

General Manager, P. B. Kerkar; *Dy. Gen. Manager*, G. B. Mitbander; *Chief Engr. (Supply)*, V. H. Navkal; *Chief Traffic Manager*, S. P. Mardolkar; *Secy.*, Vacant.

Central Railway, Hqrs. Office, Victoria Terminus, Bombay 400001.

General Manager, Prem Nayyar; *Chief Adm. Officer (Constrn.)*, S. M. Joglekar; *Addl. Gen. Manager*, P. Nayyar; *Sr. Dy. Gen. Manager*, Ishwarbhai Amin; *Chief Pub. Relations Officer*, H. K. Bakhru; *Chief Engr.*, B. V. Rama Rao; *Chief Optg. Supdt.*, Madan Singh; *Chief Comml. Supdt.*, R. K. Mishra; *Chief Mech. Engr.*, V. P. Chadha.

Western Railway, Hqrs. Office, Churchgate, Bombay 400020.

General Manager, Vacant; *Addl. Gen. Manager*, H. S. Sinha; *Sr. Dy. Gen. Manager*, M. P. Srivastava, *Chief Engr.*, A. Chellan; *Chief Optg. Supdt.*, R. P. Singh; *Chief Comml. Supdt.*, S. K. Sharma; *Chief Electrical Engr.*, B. S. Chirmule; *Chief Mechanical Engr.*, M. L. Khanna.

Railway Service Commission, Churchgate Stn., Bldg., 1st Floor, Bombay 400020.

Metropolitan Transport Project (Railways), Churchgate Stn. Bldg., Bombay 400020. Chief Admn. Officer, S. M. Joglekar.

16 **MANIPUR,** Imphal.

Governor: Gen. K. V. Krishna Rao.

Ministers

Chief Minister, Rishang Keishing. *Ministers*, I. Tompok Singh (*Dy. Chief Minister*), Ngurdinglien, Sosho Lorho, Th. Devendra Singh, Holkhomang Haokip. Md. Mahamuddin Shah, M. Ibotombi Singh, Dr. L. Chandramani Singh, K. Radhabinod Singh, Kh. Pulinkanta Singh.

Ministers of State

Ch. Rajmohon Singh, K. Vungzalien, H. Kangjamba Singh, L. Amujao Singh, P. Achou Singh, Gaikhangam, Phungjathang.

Secretariat

Chief Secretary, D. N. Barua.
(High Court: Given under Assam).

17 **MEGHALAYA,** Shillong.

Governor: Bhishma Narain Singh.

Ministers

Chief Minister in charge of Personnel & Admve. Reforms, G. A., Cabinet Affairs, etc., Williamson A. Sangma; *Finance, Plng., Home, Food & Civil Supplies & Revenue*, D. Dethwelson Lapang; *Pub. Works*, Rowell Lyndoh; *Pub. Health Engg., Tourism, Inf. & Pub. Relations*, Salseng C. Marak; *Health & Family Welfare, etc.*, Sandford K. Marak; *Power, Transport, etc.*, Grosswell Mylliemngap; *Soil Conservation, etc.*, Albinstone M. Sangma; *Edn., etc.*, Dr. Roytre C. Laloo; *Animal Husb. & Veterinary, Dairy Devpt., Fisheries, etc.*, Prethington Sangma; *Inds. & Labour*, Dr. Flinder A. Khonglam; *Excise, Social Welfare & Jails*, Indro Pariat; *Comm. Devpt., etc.*, Kitdor Syiem; *Co-opn., Relief & Rehab.*, Medistar Warbah; *Border Areas Devpt.*, Mestonath Kharchandy; *Agri.*, Oris Lyngdoh.

Ministers of State

Pub. Works, Atul C. Marak; *Agri.*, Meckenson K. Sangma; *Food & Civil Supplies*, William C. Marak; *Pub. Health Engg., Power*, Nihon Ksih; *Transport*, D. R. Nongkynrih.

Secretariat

Chief Secy. & State Vigilance Commr., J. C. Nampui. *Addl. Chief Secy. & Spl. Secy., Sectt. Admn., Pub. Health Engg.*, R. V. Lyngdoh.

(High Court: Given under Assam).

18 **MIZORAM,** Aizawl.

Lt. Governor: H. S. Dubey.

Ministers

Chief Minister, Lal Thanhawala; *Other Ministers*, Sainghaka, Thangliana, Rokhmlova.

Secretariat

Chief Secy., A. H. Scott; *Liaison Offices:* Mizoram House, 240, Old Ballygunge Rd., Calcutta 700019; Mizoram House, BL-12 South Extn., Part II, New Delhi 110049; Mizoram House, Rang Kharia, Silchar, Cachar (Assam)

19 **NAGALAND,** Kohima.

Governor: Gen. K.V. Krishna Rao

Ministers

Chief Minister, S. C. Jamir; *Finance, Revenue, etc.*, T. A. Ngullie; *Transport, Communications, etc.*, Sao Chang; *Civil Supplies, etc.*, Kariba Ao; *Agriculture*, Khehoto; *Edn., Rural Devpt.*, K. L. Chishi; *Works & Housing*, P. Enyie Konyak; *Social Security & Welfare, etc.*, Kiyeshe; *Industry*, Tiameren; *Plng., etc.*, N. I. Jamir; *Medical & Family Welfare*, Dr. Vizadel Sakhrie; *Geology & Mining*, T. Rothrong Sangtam.

Ministers of State

Veterinary & Animal Husb., T. N. Ngullie; *Soil Conservation*, Nokzunketba; *Electricity, Jails, Relief & Rehab.*, Yokten

Konyak; *Forests*, Henlum L. Singson; *Works & Housing, Fisheries*, Marchiba; *Excise*, Kohoto Sema; *Inf., Publicity & Tourism*, Puse; *Transport & Co-opn.*, Anwar Hussain; *Edn., etc.*, Nocklem Konyak; *Parl. Affairs, Labour & Emp.*, Shikiho Sema; *Industry*, Bangjak Phom.

Secretariat

Chief Secretary, I. Longkumer; *Home, Finance Commr. & Addl. Chief Secy.*, N. Jakhalu.

High Court: (Given under. Assam).

20 **ORISSA,** Bhubaneswar.

Governor: B. N. Pande.

Ministers

Chief Minister in charge of Gen. Adm., Home, Inf. & Pub. Relations, Plng. & Co-ordn., Industries & Irri. & Power (including Minor Irrigation), Janaki Ballav Patnaik; *Revenue & Transport*, Upendra Dixit; *Agri. & Co-opn.*, Basudev Mohapatra; *Edn. & Youth Services*, Gangadhar Mohapatra; *Commerce*, Dayanidhi Naik; *Finance & Law*, Raghunath Patnaik; *Harijan & Tribal Welfare*, Rama Chandra Ulaka.

Ministers of State

Health & Family Welfare, Harihar Karan; *Forests, Fisheries & Animal Husb.*, Kuanria Majhi; *Labour & Emp. & Tourism, Sports & Culture*, Jugal Kishore Patnaik; *Comm. Devpt. & Rural Reconstruction*, Bhajman Behera; *Irri. & Power*, Niranjan Patnaik; *Housing, Urban Devpt., PWD, Mining & Geology*, Basant Kumar Biswal; *Excise*, Habi Bulla Khan; *Inds., Food & Civil Supplies*, Kishore Chandra Patel.

Deputy Minister

Community Devpt. & Rural Reconstruction, Smt. Saraswati Hembram.

Secretariat

Chief Secy. & Devpt. Commr., Gian Chand; *Addl. Chief Secy.*,

High Court, Cuttack 753002.

Chief Justice, D. Pathak; *Judges*, P. K. Mohanti, J. K. Mohanty, B. N. Mishra, B. K. Behera, R. C. Patnaik, P. C. Misra, G. B. Patnaik, D. P. Mohaptra; *Registrar*, R. N. Panda; *Advocate-General*, Gangadhar Rath.

21 **PONDICHERRY,** Pondicherry.

L. I. Parija.

Secretariat

Chief Secretary, R. Badrinath.

22 **PUNJAB.** Chandigarh.

(*Chief Commissioner, Chandigarh*, K. K. Banerjee).

Lt.-Governor: Vacant.

Advisers:

Governor: K. T. Satarawala.

Lt.-Gen. Ranjit Singh Dayal, Surindra Nath

Secretariat

Chief Secretary, K. D. Vasudeva.

High Court, Punjab & Haryana, Chandigarh.

Ag. Chief Justice, P. C. Jain; *Judges*, S. C. Mital, D. S. Tewatia, M. R. Sharma, R. N. Mittal, A. S. Bains, K. S. Tiwana, Surinder Singh, S. P. Goyal, J. M. Tandon, S..S. Dewan, J. V. Gupta, S. S. Kang, G. C. Mital, I. S. Tiwana, M. M. Punchhi, B. S. Yadav, S. S. Sodhi, Karam Pal Singh Sandhu, Pritpal Singh; *Registrar*, Narendra Singh Rao.

23 **RAJASTHAN,** Jaipur.

Governor: Air Chief Marshal O. P. Mehra (Retd.).

Ministers

Chief Minister, S. C. Mathur, *Other Ministers*, Chandan Mal Baid, Paras Ram Maderna, Brij Sundar Sharma, Hira Lal Devpura, Khet Singh Rathor, Ahmad Baksh Sindhi.

Ministers of State

Jaikishan Sharma, Parduman Singh, Sri Ram Gorewala, Dinesh Ram Dangi, Ghasi Ram Yadav, Chat Ram Meena, Govind Singh Gurjar, Sis Ram Ola, Ram Kishan Verma, Devendra Singh, Surendra Vyas, Bulaki Das Kalla.

Deputy Ministers

Mrs. Kamla Bheel, Jugtar Singh, Choga Lal Bankolia.

Secretariat

Chief Secretary, Vacant.

High Court, Jodhpur 342001.

Chief Justice, Pradyot Kumar Banerjee; *Judges:* Dwarka Prasad Gupta, Guman Mal Lodha, Shrikrishna Mal Lodha, Narendra Mohan Kasliwal, Milap Jain. Surendra Suresh Chandra Agrawal, Dr. Kashmir Singh Sidhu, Miss KKanta Kumari Bhatnagar, Surendra Nath Bhargava, Dinkar Lal Mehta, Kishore Singh Lodha, Gopal Krishna Sharma, Shyam Sunder Byas; *Registrar*, Nand Lal Chhangani; *Registrar (Vigilance)*, Dharam Chand Sharma; *Advocate-General*, Nathu Lal Jain.

24 **SIKKIM,** Gangtok.

Governor: K. Prabhakar Rao.

Chief Secretary, K. B. L. Chhabra.

High Court, Gangtok 737101.

Chief Justice, Mohan Lal Shrimal; *Judges*, Anandmoy Bhattacharjee, R. Dayal; *Advocate-Genl.*, Vacant.

25 **TAMIL NADU**, Madras.

Governor: S. L. Khurana.

Ministers

Chief Minister in charge of G.A., I.A.S., Pub. Works, etc., M. G. Ramachandran; *Finance, Food, etc.*, V. R. Nedunchezhian; *Electricity, Iron & Steel Control*, S. Ramachandran; *Dairy Devpt.*, K. A. Krishnaswami; *Food & Civil Supplies*, S. D. Somasundaram; *Edn., Tech. Edn., etc.*, C. Aranganayagam; *Inf. & Publicity, Forests, Hindu Religious & Charitable Endowments. etc.*, R. M. Veerappan; *Agriculture*, K. Kalimuthu; *Law, Courts, Prisons, Large Inds., Mines & Minerals. etc.*, C. Ponnaiyan; *Noon Meal Scheme, etc.*, P. Kolandaivelu: *Labour, Housing. Water Supply, etc.*, S. Raghavanandam; *Health*, Dr. H. V. Hande; *Agro Services, Co-op. Socs., Transport, Ports, etc.*, S. Muthuswamy; *Co-opn., Textiles*, S. Thirunavukkarasu; *Handlooms, Prohibition*, S. N. Rajendran; *Harijan Welfare, Hill Tribes, Bonded Labour, Emp. & Trg.*, M. Vijayasarathy; *Social Welfare, Animal Husb., Orphanages, etc.*, Mrs. Gomathi Srinivasan; *Backward Classes*, M. R. Govindan; *Khadi*, Miss. P. Vijayalakshmi; *Environmental & Pollution Control, S. R. Radha; Local Adm.*, R. Soundararajan; *Irri. & Waqf Board*, Y. S. M. Yusuf; *Fisheries*, K. Kalaimani; *Rural Inds.*, R. Arunachalam.

Secretariat, Fort St. George, Madras 600009.

Chief Secretary. K. Chockalingam.

Madras Metropolitan Development Authority, 52. E. V. K. Sampath Rd., Madras 600007.

Madras Metropolitan Water Supply & Sewerage Board, 43–46, Greames Rd., Madras 600006.

State Planning Commission, Ezhilagam, Madras 600005.

Tamil Nadu Khadi & Village Industries Board, Kuralagam, Madras 600001.

Tamil Nadu Slum Clearance Board, Nandanam, Madras 600035.

Tamil Nadu Pollution Control Board, 80, Kamaraja Salai, Annamalaipuram, Madras 600028.

Tamil Nadu Water Supply & Drainage Board, Twad House, Chepauk, Madras 600005.

High Court, Madras 600001.

Chief Justice, M. N. Chandurkar; *Judges:* P. R. Gokulakrishnan, V. Ramaswami, S. Natarajan, S. Ratnavel Pandian. S. Mohan, V. Balasubrahmanyan, S. Padmanabhan, M. A. Sathar Sayeed, T. Sathia Dev, S. Nainar Sundaram, G. Maheshwaran, S. Swamikkannu, V. Ratnam, R. Sengottuvelan, K. Shanmukham. T. N. Singaravelu, Shaikh Abdul Kader, K. Venkataswami, K. M. Natarajan, P. Venugopal *(Ad-hoc Judge)*: *Registrar*, S. Janarthanam; *Advocate-General*, R. Krishnamurthy.

Railway Service Commission, Cathedral Road, Madras 600086.
Southern Railway (General Manager's Office, Park Town, Madras 600003).

General Manager, Arjun Pershad; *Sr. Dy. Gen. Manager,* B. Madhavan; *Addl. Gen. Manager,* M. Ramaswami; *Chief Optg. Supdt.,* Ranjit Mathur; *Chief Comml. Supdt.,* L. N. Ramachandran; *Chief Mechanical Engr.,* K. Viswanathan; *Chief Engr.,* S. Ananthanarayanan; *Chief Elect. Engr.,* M. D. Rao; *Chief Pub. Relations Officer,* N. Rajan Kutty.

26 **TRIPURA,** Agartala.
Governor: Gen. K. V. Krishna Rao.
Ministers

Chief Minister in charge of Home, Political, Admve. Reforms, Confidential & Cabinet, Sectt. Admn., Planning & Co-ord., Law, Finance, Nripen Chakraborty; *Edn., Tribal Welfare, etc.,* Dasarath Deb; *Labour, Local Self Govt., Fisheries,* Biran Dutta; *Pub. Works. Transport,* Baidyanath Majumder; *Cultural, Inf. & Tourism, Parliamentary Affairs, Industries, Welfare of Scheduled Castes,* Anil Sarkar; *Printing & Stationery, Statistics,* Sudhanwa Deb Barma; *Community Devpt., Panchayat,* Dinesh Deb Barma; Co-opn., Animal Husb., Abhiram Deb Barma; *Agriculture, Fisheries;* Badal Chowdhury; *Health & Family Welfare, Revenue,* Khagen Das; *Forests,* Araber Rahaman; *Jail, Relief & Rehabilitation,* Jogesh Chakraborty; *Food & Civil Supplies,* Ram Kumar Nath.

Secretariat

Chief Secretary, S. R. Sankaran.
(High Court: Given under Assam).

27 **UTTAR PRADESH,** Lucknow.
Governor: C. P. N. Singh.
Chief Minister: N D. Tiwari.
North-Eastern Railway, Gorakhpur 273001.

General Manager, D. Hariram; *Sr. Dy. Gen. Manager,* H. C. S. Jagati; *Chief Comml. Supdt.,* R. N. Tiwari; *Chief Optg. Supdt.,* V. K. Chaubey; *Chief Engr.,* D. N. Singh; *Chief Mech. Engr.,* A. N. Wanchoo; *Chief Public Relations Officer,* R. L. Singh.

Railway Service Commission, 19, Sardar Patel Marg, Allahabad 211001.
High Court, Allahabad 211001.

Ag. Chief Justice, M. N. Shukla; *Judges:* H. N. Seth, Gopi Nath, M. P. Mehrotra, A. Banerji, K. C. Agrawal, B. N. Sapru, P. S. Gupta, K. P. Singh, K. N. Goyal, S. C. Mathur, N. N. Mithal, R. B. Lal, M. Wahajuddin, B. C. Jauhari, S. Saghir Ahmad, A. S. Srivastava, R. A. Misra, S. K. Dhaon, I. P. Singh, R. K. Shukla, K. N. Singh, N. D. Ojha, D. N. Jha, B. N. Katju, K. S. Verma, R. M. Sahai, U. C. Srivastava, S. D. Agrawal, V. K. Mehrotra, A. N. Verma, V. K. Khanna, K. N. Misra, S. Zaheer Hasan, R. C. D. Sharma, N. N. Sharma, O. P. Saxena, B. D. Agrawal, V. N. Khare, Kamleshwar Nath, A. P. Mishra, R. P. Shukla, A. N. Dikshit, K. C. Dhulia, Om Prakash, Dr. P. Dayal, V. P. Mathur, Umesh Chandra, Om Prakash; *Addl. Judges,* S. K. Mukherjee, B. L. Yadav, Anshuman Singh, Dr. J. N. Dubey, Brijesh Kumar, Ganga Baksh Singh; *Registrar,* S. K. Bhargava.

28 **WEST BENGAL,** Calcutta.
Governor: A. P. Sharma.
Ministers

Chief Minister in charge of Home, Jyoti Basu; *Finance, Plng. & Devpt.,* Dr. Ashok Mitra; *Home (Jails),* Debarata Bandopadhyaya; *Home (Transport),* Robin Mukherjee; *Devpt. & Plng. (Sundarban Devpt.),* Provas Roy; *Devpt. & Plng. (Jhargram Devpt.),* Dr. Shambunath Manid; *Law,* Syed Abdul Mansur Habibullah; *Labour,* Krishnapada Ghosh; *Land & Reforms, etc.,* Benoy Chowdhury; *Animal Husb. & Veterinary Services,* Amritendu Mukherjee; *Mun. Affairs,Metropolitan Devpt. under Sanitation & Water Supply,* Prashanta Sur; *Food & Supplies,* Radhika Ranjan Banerjee; *Forests & Tourism,* Parimal Mitra; *Higher Edn.,* Prof. Sambu C. Ghosh; *Education (Primary & Secondary),* Kanti Biswas; *Agriculture, Rural Water Supply & Sanitation,* Kamal Guha; *P.W.D. & Housing,* Jatin Chakravarty; *Welfare under R. R. Dept. & Jails,* Debabrata Bandopadhyaya; *Environment,* Bhabani Mukherjee; *Tribal Welfare,* Dr. Shambhunath Mandi; *Co-operatives,* Nirmal Bose; *Irrigation & Waterways,* Nani Bhattacharya; *Minor & Small Irrigation,* Kanai Bhowmik.

Ministers of State

Hill Affairs, Tamang Dawa Lama; *Parl. Affairs,* Patit Paban Pathak; *Civil Defence,* Ram Chatterjee; *Home (Transport),* Shibendra Narayan Chowdhury; *Devpt. & Plng.,* Abdur Rezzak Mulla; *Land Reforms,* Sunil Mazumdar; *Municipalities,* Sailen Sarkar; *Food & Supplies,* Achintya Roy; *Relief,* Km. Nirupama Chatterjee; *Sports,* Subhash Chakravarty; *Primary & Secondary Edn.,* Mohd. Abdul Bari; *Social & Non-Formal Edn., Libraries,* Smt. Chhaya Bera; *Health & Family Welfare,* Ambarish Mukherjee; *Scheduled Castes & Tribal Welfare,* Banamali Roy; *Cottage & Small Scale Inds.,* Proloy Talukdar; *Youth Services, Dairy Devpt.,* Subhash Chakravarty; *Inf. & Cult. Affairs,* Provas Phodikar; *Excise,* Bimlananda Mukherjee; *Fisheries,* Kiranmay Nanda; *Labour,* Shanti Ghatak; *Power,* Prabhir Sengupta.

Secretariat, Writers' Bldgs., Calcutta 700001.

Chief Secretary, S. V. Krishnan.

West Bengal Board of Secondary Education, 77/2, Park St., Calcutta 700016.
West Bengal Khadi & Village Industries Board, 12, BBD Bagh, Calcutta 700001.
Eastern Railway, 17, Netaji Subhas Rd., Calcutta 700001.

General Manager, T. S. Vardya; *Addl. Gen. Manager (O),* M. K. Verma; *Sr. Dy. Gen. Manager & Chief Vigilance Officer,* S. N. Chatterjee; *Chief Engr.,* M. R. Ranganath; *Chief Mech. Engr.,* H. K. Khosla; *Chief Optg. Supdt.,* H. Bandopadhyay; *Chief Comml. Supdt.,* H. C. Johari; *Chief Pub. Relations Officer,* B. Das Gupta.

South Eastern Railway, 11, Garden Reach Rd., Calcutta 700043.
Railway Service Commission, Mackinnon Mackenzie Bldg., 16, Strand Rd., Calcutta 700001.
Metropolitan Transport Project (Railways), 14, Strand Rd., Calcutta 700001.
High Court, Calcutta 700001.

Chief Justice, Satish Chandra; *Judges,* A. K. Sen, Chittatosh Mookerjee, M. M. Dutt, Purna Chandra Barooah, A. K. Janah, D. K. Sen, R. N. Pyne, Bankim Chandra Ray, Manasnath Roy, Bimal Chandra Basak, R. K. Sharma, Ganendra Narayan Ray, Chandan Kumar Banerjee, Monoj Kumar Mukherjee, Mrs. Padma Khastgir, Mrs. Monjula Bose, B. C. Chakrabarti, Mrs. Jyotirmoyee Nag, Mrs. Prativa Bonnerjea, N. G. Choudhuri, Amitabha Datta, S. N. Sanyal, S. C. Sen, Ashamukul Pal, Jitendra Nath Chaudhuri; *Advocate-General,* S. K. Acharya; *Registrar (Appellate Side),* S. S. Ganguly; *Registrar (Original Side),* Sudhamoy Mitra.

INDIAN DIPLOMATIC REPRESENTATIVES ABROAD

(Corrected up to August 10, 1984. Further changes, if any, appear in "Late Particulars" at the end of the book.)

EMBASSIES & CONSULAR OFFICES

AFGHANISTAN (DEMOCRATIC REPUBLIC OF): *Ambassador:* J. N. Dixit. *Address:* Embassy of India, Malalai Wat, Shahr-e-Mau, Kabul.

Consul: A. S. Gill. *Address:* Consulate of India, 46, Nahiya Sahr-e-Nau, Jalalabad.

Consul: C. P. Kapoor. *Address:* Consulate of India, Kandahar.

ALGERIA: *Ambassador:* K. V. Rajan. *Address:* Embassy of India, 119 ter, Rue Didouche Mourad, Algiers.

ANGOLA: *Ambassador* (also High Commr. to Botswana & Zambia): K. M. Lal. Resident in Lusaka.

ARGENTINA: *Ambassador* (also Amb. to Paraguay & Uruguay): L. L. Mehrota. *Address:* Embassy of India, Paraguay 580 (3rd Flr.), Buenos Aires.

AUSTRIA: *Ambassador* (also Permanent Rep. of India to the Intnl. Organisations in Vienna): S. K. Singh: *Address:* Embassy of India, Karntner-Ring-2, A-1015, A1010, Vienna 1.

BAHRAIN: *Ambassador:* S. K. Bhatnagar. *Address:* Embassy of India, "Wolverhampton", H. No. 172, R. No. 3610, Dist. 336, Mahooz, Manama, Bahrain.

BELGIUM: *Ambassador* (also Amb. to Grand Duchy of Luxembourg): Eric Gonsalves *Address:* Embassy of India, 217, Chauses-de-Vleurgat Avenue, 1050, Brussels.

Consul-General: Chevalier Desprechins de Gaesebeke. *Address:* Consulate-General of India, Lt. Willemootlaan 5, 9910 Mariakerke, Ghent.

Consul-General: Paul Meeus. *Address:* Consulate-General of India, Antwerpse Diamantbank NV Peli Kaanstraat 54,2000, Antwerp.

BENIN, REPUBLIC OF: *Ambassador* (also Amb. to Cameroun and High Commr. to Nigeria): Vacant. Resident in Lagos. (Embassy of India, Cotonou).

BHUTAN: *Ambassador:* A. N. Ram. *Address:* Embassy of India, New India House Estate, Thimphu.

BOLIVIA: *Ambassador* (also Amb. to Peru): Sushil Dubey. Resident in Lima (Embassy of India, La Paz).

BRAZIL: *Ambassador:* S. S. Nath. *Address:* Embassy of India, Edicicio Venancio VI, 5th Floor, CAIXA Postal 11-1097, Brasilia A.D.F.

BULGARIA: *Ambassador:* B. Deva Rao. *Address:* Embassy of India, 31 Blvd. Patriarch Eftimii, Sofia

BURMA: *Ambassador:* Vacant. *Address:* Embassy of India, Oriental Assurance Bldgs., 545-47, Merchant St., Rangoon.

BURUNDI: *Ambassador* (also Amb. to Rwanda & High Commr. to Uganda): N. R. Verma. Resident in Kampala. (Embassy of India, Bujumbura).

CAMEROUN: *Ambassador* (also Amb. to Republic of Benin & High Commr. to Nigeria): Vacant. Resident in Lagos. (Embassy of India, Yaounde).

CAPE VERDE ISLANDS: *Ambassador* (also Amb. to Guinea Bissau, Mauritania, Mali & Senegal and High Commr. to Gambia): R. K. Anand. Resident in Dakar.

CENTRAL AFRICAN REPUBLIC: *Ambassador* (also Amb. to Zaire Republic, Equatorial Guinea, Brazzaville Congo & Gabon): R. K. Rai. Resident in Kinshasa.

CHAD: *Ambassador* (also Amb. to Sudan): Vacant. Resident in Khartoum.

CHILE: *Ambassador:* M. K. Kisha. *Address:* Embassy of India, 871, Triana, Santiago.

CHINA (PEOPLE'S REPUBLIC OF): *Ambassador:* A. P. Venkateswaran. *Address:* Embassy of India, 1, Ri Tan Dong Lu, Beijing.

COLOMBIA (also Amb. to El Ecuador): *Ambassador:* A. B. W. Vaz. *Address:* Embassy of India, Carrera 27A, No. 40-70 Bogota.

COMORES: *Ambassador* (also Amb. to Malagasy Republic): Indrajit Singh, Resident in Antananarivo.

CONGO (BRAZZAVILLE): *Ambassador* (also Amb. to Central African Republic, Equatorial Guinea, Zaire Republic & Gabon): R. K. Rai. Resident in Kinshasa.

COSTA RICA: *Ambassador* (also Amb. to Nicaragua & Panama): S. S. Bhatnagar. Resident in Panama City. (Embassy of India, San Jose).

CUBA: *Ambassador:* V. C. Khanna. *Address:* Embassy of India, Calle 32, No. 202, esquina a K, Vedado, Havana.

CZECHOSLOVAKIA: *Ambassador:* U. C. Soni. *Address:* Embassy of India, Valdstejnska 6, Malastrana, Prague 1.

DENMARK: *Ambassador:* Mrs. M. Bhalla. *Address:* Embassy of India, Vengehusvej 15, DK 2100 Copenhagen.

Consul-General: Victor B. Strand. *Address:* Consulate General of India, Kronprinsessegade 36, DK 1306, Copenhagen K.

DJIBOUTI (REPUBLIC OF): *Consul:* S. J. Kothari. *Address:* Consulate of India, Post Box No. 171. Djibouti.

EGYPT (ARAB REPUBLIC OF): *Ambassador:* A. S. Gonsalves. *Address:* Embassy of India, 5, Aziz Abaza St., Zamalek, P.O. Box 718, Cairo.

Consul-General: A. B. Tawadey. *Address:* Consulate-General of India, 12, El Shahid El Ghayyar St., Port Said.

EL ECUADOR: *Ambassador* (also Amb. to Colombia): A. B. W. Vaz. Resident in Bogota.

Consul-General: Jack Bermes Cevallo. *Address:* Consulate-General of India, Banco Central Ecuador, Quito.

EL SALVADOR: *Ambassador* also Amb. to Guatemala & Mexico): N. P. Jain. Resident in Mexico City.

EQUATORIAL GUINEA: *Ambassador* (also Amb. to Zaire Republic, Brazzaville-Congo, Central African Republic and Gabon): R. K. Rai. Resident in Kinshasa.

ETHIOPIA: *Ambassador:* C. V. Ranganathan. *Address:* Embassy of India, Kabana (Aware Dist.), P.O. 528, Addis Ababa.

FINLAND: *Ambassador:* A. R. Kakodkar. *Address:* Embassy of India, Sutamakatu 2A 8, 00160, Helsinki 16.

FRANCE: *Ambassador:* Narendra Singh. *Address:* Embassy of India, 15, Rue Alfred Dehodencq., Paris 16.

GABON: *Ambassador* (also Amb. to Central African Republic, Equatorial Guinea, Zaire Republic & Brazzaville-Congo): R. K. Rai. Resident in Kinshasa.

GERMAN DEMOCRATIC REPUBLIC: *Ambassador:* T. Prabhakar Menon. *Address:* Embassy of India, Clara-Zetkin, Strasse 89/06, 108-Berlin (GDR).

GERMANY (FEDERAL REPUBLIC OF): *Ambassador:* R. D. Sathe. *Address:* Embassy of India, 262/264, Adenauerallee, 5300, Bonn 1.

Consul-General (Consular jurisdiction includes the States of Hamburg, Bremen, Schleswig Holstein and Lower-Saxony): Smt. Kamlesh Kumar. *Address:* 6th Flr., Burchardstrasse 14, 2, Sprinkenhof, Hamburg 1.

Consul-General (Consular jurisdiction includes the States of Hessen, Rheinlandpfalz & Saarland): K. P. Balakrishnan. *Address:* Wilhelm-Leuschner Strasse, 93, 6000, Frankfurt Main.

Consul-General (Consular jurisdiction includes the States of India, Leopold str. 87, Munich 2.

Consul-General: Dr. R. Kissel. *Address:* Consulate-General of India, 7, Stuttgart-Degerlok Waldstr. 5, 7, Stuttgart.

Consul-General: K. N. Chakravarti. *Address:* Consulate-General of India, Joachimstaler strasse 28 (1st Floor), West Berlin-15.

GREECE: *Ambassador:* Prem Singh. *Address:* Embassy of India, Melleagrou St., No. 4, Athens-138.

Consul-General: L. E. Vafiadis. *Address:* Consulate-General of India, 1, Rue Valaovitu, Athens.

GUATEMALA: *Ambassador* (also Amb. to El Salvador &

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*Concurrently accredited to the European Economic Ckommunity and the European Coal & Steel Community. Also Special Envoy for Economic Affairs in Western Europe.

Mexico): N. P. Jain. Resident in Mexico City. (Embassy of India, Guatemala).

Consul: Ulrich W. Rasch. *Address:* Consulate of India, Post Box No. 886, Guatemala.

GUINEA: *Ambassador* (also High Commr. to Sierra Leone): V. P. Singh. *Address:* Embassy of India, Kebe Bldg., 3rd Flr., B.P. 186/Bis. Conakry 1.

GUINEA BISSAU: *Ambassador* (also Amb. to Cape Verde Islands, Senegal, Mauritania, Mali and High Commr. to Gambia): R. K. Anand. Resident in Dakar.

HOLY SEE: *Ambassador* (also Amb. to Switzerland): Thomas Abraham. Resident in Berne.

HUNGARY: *Ambassador:* A. R. Deo. *Address:* Embassy of India, Buzavirag Utca 14, Budapest II.

ICELAND: *Ambassador* (Also Amb. to Norway): Hardev Bhalla. Resident in Oslo. (Embassy of India, Reykjavik).

INDONESIA: *Ambassador:* O. P. Malhotra. *Address:* Embassy of India, Jalan, 44 Kebon Sirih, Jakarta.

Consul-General: G. C. Bowgal. *Address:* Consulate-General of India, 19, Jalan, Uskup Agung A. Sagiopranoto, Medan.

IRAN (ISLAMIC REPUBLIC OF): *Ambassador:* A. B. Gokhale. *Address:* Embassy of India, 166, Avenue Saba Shomali, Off Takhte Jamshid, P. Box No. 2473, Tehran.

Consul: M. L. Walia. *Address:* Consulate of India, Post Box 371, Shiraz.

Consul: S. S. Sarkaria. *Address:* Consulate of India, Avenue Ayatollah Kafami, Zahidan.

IRAQ: *Ambassador:* A. N. Chib. *Address:* Embassy of India, Taha St., Najeeb Pasha, Adhamiya, Baghdad.

Consul: M. S. Mehta. *Address:* Consulate of India, Palestine Rd., Basrah.

IRELAND: *Ambassador:* Kiran Doshi. *Address:* Embassy of India, 3, Leeson Park, Dublin 6.

ITALY: *Ambassador* (also Permanent Rep. of India to FAO): Homi J. H. Taleyarkhan. *Address:* Embassy of India, Via Venti Settembre 5, Rome.

Consul: Jack Clerici. *Address:* Consulate of India, Viale Padre Santo 5/11, Genoa 16122.

IVORY COAST: *Ambassador* (also Amb. to Niger): Harcharan Singh Dhody. *Address:* Embassy of India, 06BP318, Abidjan-06.

JAPAN: *Ambassador:* K. P. S. Menon. *Address:* Embassy of India, 2-Chome, 2-11, Kudan Minami Chiyodaku, Tokyo.

Consul-General: A. L. Srivastava. *Address:* Consulate-General of India, Shanti Bldg., 23-16, Nakayamate-dori-1-Chome, Chuo-Ku, Kobe 650.

JORDAN: *Ambassador:* P. L. Santoshi. *Address:* Embassy of India, Jabal Amman, 1st Circle. P. Box 2168, Amman.

KAMPUCHEA: *Charge d'Affairs:* J. C. Sharma. *Address:* Embassy of India, Villa No. 777, Boulevard Achar Mean, Phnom Penh.

KOREA (DEMOCRATIC PEOPLE'S REPUBLIC OF): *Ambassador:* K. C. Lalvunga. *Address:* Embassy of India, Block 66, Munsu-dong District, Dadong Yong, Pyongyang.

KOREA (REPUBLIC OF): *Ambassador:* Miss Arundhati Ghose. *Address:* Embassy of India, 7-48, Dong bing go dong, Yongsan-ku, Seoul.

KUWAIT: *Ambassador:* Prem Shanker. *Address:* Embassy of India, 34, Share Istiqlal, Bousheri Bldg., P. Box 1450 (Safat), Kuwait.

LAO PEOPLE'S DEMOCRATIC REPUBLIC: *Ambassador:* Shiv Kumar. *Address:* Embassy of India, P.O. Box No. 225, Rue That Luang, Vientiane.

LEBANON: *Ambassador:* B. P. Aggarwal. *Address:* Embassy of India, Sahmarani Bldg., 31, Kantari St., Beirut.

LIBERIA: *Ambassador* (also Amb. to Togo, Upper Volta (Bourkina Fasso) and High Commr. to Ghana): Gurcharan Singh. Resident in Accra. (Embassy of India, Monrovia).

Consul: G. S. Gill. *Address:* Consulate of India, Post Box 728, Monrovia.

LIBYA: *Ambassador* (also High Commr. to Malta): G. D. Atuk. *Address:* Embassy of India, 16/18, Sh. Armondi Garden City, P.O. Box 3150, Tripoli.

LUXEMBOURG: *Ambassador* (also Amb. to Belgium): Eric Gonsalves. Resident in Brussels.

MALAGASY REPUBLIC: *Ambassador* (also Amb. to Comores): Indrajit Singh. *Address:* Embassy of India, 4, Lalana Rajaonson Emile, Antananarivo.

MALI: *Ambassador* (also Amb. to Senegal, Mauritania, Cape Verde Islands, Guinea Bissau and High Commr. to Gambia): R. K. Anand. Resident in Dakar. (Embassy of India, Bamako).

MAURITANIA: *Ambassador* (also Amb. to Senegal, Cape Verde Islands, Mali, Guinea Bissau & High Commr. to Gambia): R. K. Anand. Resident in Dakar. (Embassy of India, Nouackchott).

MEXICO: *Ambassador* (also Amb. to El Salvador & Guatemala): N. P. Jain. *Address:* Embassy of India, Avonida Musset 325, Colonia Polanco, Mexico 5, D.F.

MONGOLIAN PEOPLE'S REPUBLIC: *Ambassador:* M. L. Trivedi. *Address:* Embassy of India, 26 Peace St., Ulan Bator.

MOROCCO: *Ambassador:* S. N. Puri. *Address:* Embassy of India, 13, Charia Michlifen (Agdal), Rabat.

MOZAMBIQUE: *Ambassador* (also High Commr. to Lesotho & Swaziland): Gurdip Singh Bedi. *Address:* Embassy of India, Avenida Kenneth Kaunda 167, Maputo.

NEPAL: *Ambassador:* H. C. Sarin. *Address:* Embassy of India, G.P.O. Box 292, Kathmandu.

NETHERLANDS: *Ambassador:* Mrs. S. Kochar. *Address:* Embassy of India, Buitenrustweg 2, The Hague.

NETHERLANDS ANTILLES: *Consul-General* (also Amb. to Venezuela): Prakash Shah. Resident in Caracas.

Consul: D. B. Nandwani. *Address:* Consulate of India, C/o Boolchand N. V. Heerenstroat 4, B. Curacao.

NICARAGUA: *Ambassador* (also Amb. to Costa Rica & Panama): S. S. Bhatnagar. Resident in Panama City.

NIGER: *Ambassador* (also Amb. to Ivory Coast): H. S. Dhody. Resident in Abidjan.

NORWAY: *Ambassador* (also Ambassador to Iceland): K. N. Bakshi. *Address:* Embassy of India, Niels Juels/GT-30, Oslo 2.

OMAN (SULTANATE OF): *Ambassador:* Dr. I. A. Sajjad. *Address:* Embassy of India, P. Box 4727, Ruwi, Greater Muttrah, Muscat.

PAKISTAN: *Ambassador:* K. D. Sharma. *Address:* Embassy of India, 482-F, Sector G-6/4, Islamabad.

Consul-General: G. Parthasarathy. *Address:* Consulate-General of India, India House, 3, Fatima Jinnah Rd., Karachi 4.

PANAMA: *Ambassador* (also Amb. to Costa Rica & Nicaragua): S. S. Bhatnagar. *Address:* Embassy of India, Apartment No. 1, Edifiscio Ferrare Calle 507, Via Brasil, Apartado, P. Box 8400, Panama City.

PARAGUAY: *Ambassador* (also Amb. to Argentina & Uruguay): L. L. Mehrotra. Resident in Buenos Aires. (Embassy of India, Asuncion).

Consul-General: Antonio Rodolfo Zuccolillo. *Address:* Consulate-General of India, 25 de Mayo Paraguari, Asuncion.

PERU: *Ambassador* (also Amb. to Bolivia): Sushil Dubey. *Address:* Embassy of India, San Ignacio De Loyola, 150, Miraflores, Lima.

PHILIPPINES: *Ambassador:* R. N. Mulye. *Address:* Embassy of India, 2190, Paraiso St., Dasmaniras Village, P. O. Box 926, MMC, Makati Metro, Manila.

POLAND: *Ambassador:* S. K. Arora. *Address:* Embassy of India, Rejtana 15 (Flats 2 to 7), Mokotow, Warsaw—02—516.

Consul: S. K. Verma. *Address:* Consulate of India, Gydnia.

PORTUGAL: *Ambassador:* A. N. D. Haksar. *Address:* Embassy of India, Rua das Amoreiras 72-D, 6th Flr., 1200, Lisbon 1.

QATAR: *Ambassador:* S. Bashiruddin. *Address:* Embassy of India, Sreika Stheim Villa No. 5, El-Sheikh Suheim St., P. Box No. 2788, Doha.

ROMANIA: *Ambassador:* Hardev Bhalla. *Address:* Embassy of India, 16, Str. Stefan Gheorghiu, Bucharest.

RWANDA: *Ambassador* (also Amb. to Burundi & High Commr. to Uganda): N. R. Verma. Resident in Kampala.

SAN MARINO (REPUBLIC OF): *Consul-General:* K. B. Bala. Resident in Rome (Indian Embassy).

SAUDI ARABIA: *Ambassador:* T. P. P. Abdullah. *Address:* Embassy of India, Ibrahim Masoud Bldg., Medina Rd., Baghdadia, P.O. Box 952, Jeddah.

SENEGAL: *Ambassador:* (also Amb. to Cape Verde Islands, Guinea Bissau, Mauritania, Mali & High Commr. to Gambia): R. K. Anand. *Address:* Embassy of India. Avenue Carde, 9th Flr., P.B. 398, Dakar.

SOMALIA: *Ambassador:* Vacant. *Address:* Embassy of India, Jigjiga RD. (Near State Printing Agency), Shingani, Mogadishu.

SPAIN: *Ambassador:* Dr. I. P. Singh. *Address:* Embassy of India, Velazquez, 93, Madrid 6.

Consul-General: Louis Valeriano Gonzalez Perez. *Address:* Consulate-General of India. Paseo de Sanro Gervasio 57, Barcelona 22.

SUDAN: *Ambassador* (also Amb. to Chad): Vacant. *Address:* Embassy of India. No. 2 E, Mek Nimir St., P. Box No. 707, Khartoum.

Consul: S. J. Mithane. *Address:* Consulate of India, Jadavjee Bldg., St. No. 11, Port Sudan.

SURINAME: *Ambassador:* B. P. Sinha. *Address:* Embassy of India, Dr. Sophie Redmondstraat 229, Paramaribo.

SWEDEN: *Ambassador:* B. M. Oza. *Address:* Embassy of India, Adolf Fredriks Kyrokojata 12, Box 1340 S-1183, Stockholm.

SWITZERLAND: *Ambassador* (also Amb. to the Holy See): Thomas Abraham. *Address:* Embassy of India, Weltpoststrasse 17, Berne 3015.

Consul-General: M. Lal. *Address:* Consulate-General of India, 7-9, Rue Du Valais (6th Flr.), 1202, Geneva.

SYRIAN ARAB REPUBLIC: *Ambassador:* N. P. Alexander. *Address:* Embassy of India, 40/46, Adhan Malk St., Yassin Nauwelati, Damascus.

THAILAND: *Ambassador* (also Permanent Rep. of India to ECAFE): A. G. Asrani. *Address:* Embassy of India, 46, Soi prasarmitr (Sukhumuit 23), Bangkok.

Consul: K. S. Sastry. *Address:* Consulate of India, No. 88/2, Keo Navarth Rd., Chiangmai.

TOGO: *Ambassador* (also Amb. to Liberia & Upper Volta (Bourkina Fasso) and High Commr. to Ghana): Gurcharan Singh. Resident in Accra. (Embassy of India, Lome).

TUNISIA: *Ambassador:* J. T. Kallukaren. *Address:* Embassy of India, 128, Avenue Jugurtha, Tunis.

TURKEY: *Ambassador:* Parimal Ghosh. *Address:* Embassy of India. Gaziosmanpasa, Kirlangic Sokak No. 9, Ankara.

Consul-General: Nihat Boytuzum. *Address:* Consulate-General of India, Cumhuriyet Caddesi 257/3 Harbiye, Istanbul.

Consul-General: Fethi Kamal Alpdoan. *Address:* Fevzi Pasha Bulvari, Akseki Ishane Kat-4, Izmir.

U.S.S.R.: *Ambassador:* Prof. S. Nurul Hasan. *Address:* Embassy of India, No. 6-8, Ulitsa Obukha, Moscow.

Consul-General: A. Beuria. *Address:* Consulate-General of India, 31, Kirova St., Odessa.

UNITED ARAB EMIRATES: *Ambassador:* Ishrat Aziz. *Address:* Embassy of India, Plot No. C-34, Sector E-9 (ADMA—OPCO—Computer Bldg.), Khalifa Bin Zayed St., P.O. Box 4090. Abu Dhabi.

Consul-General: P. L. Goyal. *Address:* Consulate-General of India, Post Box No. 737, Dubai.

UNITED STATES OF AMERICA: *Ambassador:* (also High Commr. to the Commonwealth of Bahamas): K. S. Bajpai. *Address:* Embassy of India, 2107, Massachusetts Avenue, N. W. Washington D.C. 200008.

Consul-General: R. Verma. *Address:* Consulate-General of India, 230, North Michigan Ave., Chicago, Illinois 60601.

Consul: Col. George P. Bickford. *Address:* Consulate of India, 1144, Union Commerce Bldg., Cleveland (Ohio).

Consul: David Watumull. *Address:* Consulate of India, 2051, Young St., Honolulu (Hawaii).

Consul: Dr. H. S. Hayre. *Address:* Consulate of India, C/o Univ. of Houston, Engg. Deptt., Houston (Texas).

Consul-General: George Danegre. *Address:* Consulate-General of India, 225, Baronne St., New Orleans, LA 70112.

Consul-General: A. B. Patwardhan. *Address:* Consulate-General of India, 3-East, 64th Street, New York, N.Y. 10021.

Consul-General: Deb Mukharji. *Address:* Consulate-General of India. 540, Arguello Boulevard, San Francisco, Calif. 9448.

Consul: Frederick J. Orth. *Address:* Consulate of India, Clinton, Fleck, Glein & Brown, 500, 3rd Leuora, Seattle (Washington).

UPPER VOLTA (Bourkina Fasso): *Ambassador* (also Amb. to Togo, Liberia & High Commr. to Ghana): Gurcharan Singh. Resident in Accra. (Embassy of India, Ouagadougou).

URUGUAY: *Ambassador* (also Amb. to Argentina & Paraguay): L. L. Mehrotra. Resident in Buenos Aires. (Embassy of India, Montevideo).

Consul: Adolf Vegh. *Address:* Consulate of India, Plaza Zabala 324, Montevideo.

VENEZUELA: *Ambassador* (also Consul-General to Netherlands Antilles): Prakash Shah. *Address:* Embassy of India, Quinta Tagore, 12 Avenida, San Carlos, La Floresta, Apartado de Correos, 61585. Caracas—106.

VIETNAM (SOCIALIST REPUBLIC OF VIETNAM): *Ambassador:* Kuldip Sahadev. *Address:* Embassy of India, 58, Tran Hung Dao St., Hanoi.

YEMEN ARAB REPUBLIC: *Ambassador:* Ranjit Gupta. *Address:* Embassy of India. Al Jawahar Area. Off Zuberi Road. Sanaa.

YEMEN (PEOPLE'S DEMOCRATIC REPUBLIC OF): *Ambassador:* D. C. Manners. *Address:* Embassy of India, Premjee Chambers, Steamer Point, Aden.

YUGOSLAVIA (SOCIALIST FEDERAL REPUBLIC OF): *Ambassador:* J. R. Hiremath. *Address:* Embassy of India, Dositejeva 26, Belgrade.

ZAIRE REPUBLIC: *Ambassador* (also Amb. to Brazzaville Cong., Equatorial Guinea, Central African Republic & Gabon): R. K. Rai. *Address:* Embassy of India, 18B. Avenue des Batetela, Gombe, Kinshasa.

HIGH COMMISSIONS

AUSTRALIA: *High Commissioner:* D. S. Kamtekar. *Address:* 3-5, Moonah Place-yarralumla. Canberra 2600.

Consul-General: A. K. Banerjee. *Address:* Consulate-General of India, Caltex House, 167, Kent St., 10th Flr., Sydney N.S.W. 2000.

BAHAMAS (COMMONWEALTH OF): *High Commissioner* (also Amb. to U.S.A.): K. S. Bajpai. Resident in Washington.

BANGLADESH: *High Commissioner:* I. P. Khosla. *Address:* Indian High Commission, Road No. 3, Dhanmondi Residential Area, Dhaka 2. Asstt. High Commissions of India:—(1) 874, Baizid Bostami Rd., East, Nasirabad, Chittagong; (2) 567/B, Greater Rd., Rajshahi.

BARBADOS & GRENADA: *High Commissioner* (also High Commr. to Trinidad & Tobago): P. P. D'Souza. Resident in Port of Spain (Trinidad). *Address:* High Commission of India, Bridgetown.

BELIZE: *High Commissioner* (also High Commr. to Jamaica & Cayman Islands): Ram Lal. Resident in Kingston.

BOTSWANA: *High Commissioner* (also High Commr. to Zambia & Amb. to Angola): K. M. Lal. Resident in Lusaka

CANADA: *High Commissioner:* G. G. Swell. *Address:* High Commissioner of India, 10 Springfield .Rd., Ottawa-KIMIC9.

Consul-General: S. L. Malik. *Address:* Consulate-General of India, 2 Bloor St. East, Suite 2920. Toronto-M-4W 1A8 (Ontario).

Consul-General: B. K. Mitra. *Address:* Consulate-General of India, 325, Howe St., Vancouver 1 (B.C.).

CAYMAN ISLANDS: *High Commissioner* (also High Commr. to Jamaica & Belize): Ram Lal. Resident in Kingston.

CYPRUS: *High Commissioner:* G. M. Jambholkar. *Address:* High Commission of India, No. 3, Astemidhos St., Montparnasse, Engomi, Nicosia.

Consul-General: Felix Cirilli de Nores. *Address:* Consulate-General of India, 4-A, Rupel St., Nicosia.

FIJI: *High Commissioner* (also High Commr. to Nauru, Papua New Guinea & Kingdom of Tonga): C. P. Ravindranathan. *Address:* High Commission of India, Suit No. 201202, Fiji Dev. Bank Bldg., Victoria Parade, Suva. Jurisdiction extends to the UN Trust Territory of Caroline & Marshall Island; Solomon Island; New. Hebrides; Gillbert & Elice Islands; New Caledonia & Society Islands.

GAMBIA: *High Commissioner* (also Amb. to Senegal, Mauritania, Cape Verde Islands, Mali, Guinea Bissau): R. K. Anand. Resident in Dakar. (High Commission of India, Bathurst).

GHANA: *High Commissioner* (also Amb. to Togo, Liberia & Upper Volta): (Bourkina Fasso): Gurcharan Singh. *Address:* High Commission of India, 12, Monkata Ave., Airport Residential Area, P. Box 3040, Accra.

GUYANA: *High Commissioner:* G. R. Wakankar. *Address:* High Commission of India, No. 10, Avenue of the Republic, P. Box 872, George Town.

JAMAICA: *High Commissioner* (also High Commr. to Belize & Cayman Islands): Ram Lal. *Address:* High Commission of India, No. 4, Retreat Avenue, Kingston.

KENYA: *High Commissioner:* K. K. S. Rana. *Address:* Jeevan Bharati Bldg., Harambee Avenue, Nairobi.

Asstt. Commissioner: M. M. Malhotra, *Address:* Commission of India, LIC Bldg., Nkrumaha Rd., Mombasa (Kenya).

LESOTHO: *High Commissioner* (also Amb. to Mozambique & High Commr to Swaziland): Gurdip Singh Bedi. Resident in Maputo. (High Commission of India, Maseru).

MALAWI: *High Commissioner:* Vacant. *Address:* High Commission of India, Area No. 40, Plot No. 14, Off Convention Drive Capital City, P. Box No. 30348, Lillongwe.

MALAYSIA: *High Commissioner:* Ranjit Sethi. *Address:* High Commission of India, P. Box No. 59, 19, Jalan Melaka, United Asian Bank Bldg., Kuala Lumpur.

MALDIVES: *High Commissioner:* Brij Kumar. *Address:* High Commission of India, "Mafanna Aage" 37 Orchd Magu, Male.

MALTA: *High Commissioner* (also Amb. to Libya): G. D. Atuk. Resident in Tripoli. (High Commission of India, Valletta).

MAURITIUS: *High Commissioner:* Vacant. *Address:* High Commission of India, Bank of Baroda Bldg., Sir William Newton St., Port Louis.

NAURU: *High Commissioner* (also High Commr. to Fiji, Papua New Guinea and Kingdom of Tonga): C. P. Ravindranathan. Resident in Suva.

NEW ZEALAND: *High Commissioner* (also High Commr. to Western Samoa): L. Keivom. *Address:* High Commission of India, Princess Towers, 10th Flr., 180 Melesurth St., Wellington.

NIGERIA: *High Commissioner* (also Amb. to Cameroun & Republic of Benin): N. P. Alexander. *Address:* High Commission of India, 107, Awolowo Rd., Lagos, Information Service of India, South West Ikoyi, P.M.B. Box 2322, Lagos.

PAPUA NEW GUINEA: *High Commissioner* (also High Commr. to Fiji, Nauru and Kingdom of Tonga): C. P. Ravindranathan. Resident in Suva.

SEYCHELLES: *High Commissioner* (also High Commr. to Tanzania): P. M. S. Malik. Resident in Dar-es-Salaam. (High Commission of India, 13-14, Ocean Gate Bldg., Mahe).

SIERRA LEONE: *High Commissioner* (also Amb. to Guinea): V. P. Singh. Resident in Conakry. *Address:* High Commission of India, Freetown.

Consul: R. D. Rajwani. *Address:* Consulate of India, P. Box 26, Freetown.

SINGAPORE: *High Commissioner:* K. Gopalakrishna Pillai. *Address:* High Commission of India, India House, 31, Diliney Rd., Singapore.

SRI LANKA: *High Commissioner:* S. J. S. Chhatwal. *Address:* High Commission of India, State Bank of India Bldg., 18-3/1, Sir B. Jayatilleke Mawatha Fort, Colombo 1. *Asst. High Commission of India. Address:* 31, Rajapihilla Mawatha, Kandy.

SWAZILAND: *High Commissioner* (also Amb. to Mozambique & High Commr. to Lesotho): Gurdip Singh Bedi. Resident in Maputo.

TANZANIA: *High Commissioner* (also High Commr. to Seychelles): P. M. S. Malik: *Address:* High Commission of India, 11th Flr., 'A" Wing NIC Investment House, Mirambo St., Dar-es-Salaam.

Consul-General: B. P. Singh. *Address:* Consulate-General of India, No. 8, Magombani, P. Box 371, Zanzibar.

TONGA, KINGDOM OF: *High Commissioner* (also High Commr. to Papua New Guinea, Nauru & Fiji): C. P. Ravindranathan. Resident in Suva.

TRINIDAD & TOBAGO: *High Commissioner* (also High Commr. to Barbados & Grenada. Commr. to the Associated States—Antigua, Dominica, St. Kitts—Nevi—Anguilla, St. Lucia; also Commr. to St. Vincent, Monteserrat, Turks & Caicos): P. P. D'Souza. *Address:* High Commission of India, 87, Cipriani Boulevard, P. Box No. 530, Port of Spain (Trinidad).

UGANDA: *High Commissioner* (also Amb. to Burundi & Rwanda): N. R. Verma. *Address:* High Commission of India, Plot No. 11, Kampala Rd., Kampala.

UNITED KINGDOM: *High Commissioner:* Prakash Mehrotra. *Dy. High Commr.,* P. Johari. *Address:* India House, Aldwych, London, W.C. 2, NA. *Asst. High Commissions of India:*—(1) 86, New St., Birmingham: (2) Jeager House, 62 Buchanan St., Glasgow GI 3 JE; (3) 4, Rodney St., Liverpool L 12 TE.

WESTERN SAMOA: *High Commissioner* (also High Commr. to New Zealand): L. Keivom. Resident in Wellington.

ZAMBIA: *High Commissioner* (also High Commr. to Botswana & Amb. to Angola): K. M. Lal. *Address:* High Commission of India, Anchor House, Lusaka II, P.O. Box 32111, Lusaka.

ZIMBABWE: *High Commissioner:* K. K. Bhargava. *Address:* High Commission of India, 12, Natal Rd., Off 2nd St., Belgravia, Post Box No. 4620, Harare.

SPECIAL MISSIONS

KENYA: *Permanent Representative of India to the U. N. Environment Programme,* P.B. No. 30074, Nairobi, K. K. S. Rana.

UNITED NATIONS: *Ambassador/Permanent Representative:* N. Krishnan. *Address:* Permanent Mission of India to the United Nations, 750, 3rd Avenue, 21st Flr., New York. N. Y. 10017. Geneva Office: 7-9, Rue Du Valais (6th Flr.), 1202, Geneva. *Ambassador/Permanent Rep.,* M. Dubey. Permanent Mission of India to the Internal Orgns. in Vienna, Karntner Ring 2, Vienna 1. *Amb./Permanent Rep.* (also Governor for India on the Board of Governors of the Intnl. Atomic Energy Agency): S. K. Singh.

COMMISSION

HONG KONG: *Commissioner for the Govt. of India:* Jagannath S. Doddamani. *Address:* Commission of India, 16-D, United Centre, 95 Queens Way, Hong Kong.

FOREIGN DIPLOMATIC REPRESENTATIVES IN INDIA

EMBASSIES, CONSULAR AND TRADE OFFICES

AFGHANISTAN (DEMOCRATIC REPUBLIC OF): *Ambassador:* Dr. Mohd. Hasan Sahrq. *Address:* Shantipath, Chanakyapuri, New Delhi 110021.

Consul-General: E. Fazel Ahmed. *Address:* 115, Walkeshwar Rd., Bombay 400006.

ALGERIA: *Ambassador:* Noureddine Harbi. *Address:* 13, Sunder Nagar, New Delhi 110003.

ARGENTINA: *Ambassador:* Fernando Fernandez Escalante. *Address:* B-8/9, Vasant Vihar, New Delhi 110057.

AUSTRIA: *Ambassador:* Erich M. Schmid. (Also Amb. to Bangladesh, Nepal & Sri Lanka). *Address:* EP-13, Chandragupta Mrg., Chanakyapuri, New Delhi 110021.

Hon. Consul-General: Jasu Shah. *Address:* Taj Bldg., 3rd Flr., 210, Dr. D. N. Rd., Bombay 400001.

Hon. Consul: Mrs. Anna Mukherji. *Address:* 96/1, Sarat Bose Rd., Calcutta 700026. *Hon. Consul-General a.p.:* H. C. Kothari. *Address:* Kothari Bldg. (4th Flr.), 20, Nungambakkam High Rd., Madras 600034.

Hon. Consul-General a.p.: H. C. Kothari. *Address:* Kothari Bldg. (4th Flr.), 20, Nungambakkam High Rd., Madras 600034.

Trade Commr., Dr. B. Koch, 12-A, Amrita Shergill Mrg., New Delhi 110003. (Also handles Austrian trade affairs in Nepal, Bangladesh and Sri Lanka).

BAHRAIN (STATE OF): *Consul:* Fahad Al Wazzan. *Address:* Raj Mahal. 84, Veer Nariman Rd., Bombay 400020.

BELGIUM: *Ambassador:* Jan Hollants Van Loocke (also Amb. to Nepal, Maldives & Sri Lanka). *Address:* 50-N, Shantipath, Chanakyapuri, New Delhi 110021. (Embassy also looks after the economic & consular affairs of the Grand Duchy of Luxembourg).

Consul-General: Guido Sonek. *Address:* "Morena", 11, M. L. Dahanukar Mrg., Bombay 400026.*Consul-General (Hon.):* Sunil Singh Roy. *Address:* 5/1A, Hungerford St., Calcutta 700017.*Consul (Hon.):* M. Nevens. *Address:* 23, Spurtank Rd., Chetput, Madras 600031.

BHUTAN: *Ambassador:* Om Pradhan. *Address:* Chandra Gupta Mrg., Chanakyapuri, New Delhi 110021.

BOLIVIA: *Hon. Consul-General:* A. D. Khan. *Address:* 20, Loudon St., Calcutta 700016.

BRAZIL: *Ambassador:* Jorg D'Escragnolle Taunay. (Also Amb. to Sri Lanka & Nepal). *Address:* 8, Aurangzeb Rd., New Delhi 110011.

BULGARIA: *Ambassador:* Tocho Tochev. (Also Amb. to Nepal & Sri Lanka). *Address:* 16/17, Chandragupta Mrg., Chanakyapuri, New Delhi 110021.

Counsellor for Trade & Economic Affairs: 16/17, Chandragupta Mrg., Chanakyapuri, New Delhi 110021. *Trade Rep: at Bombay:* 11, Peacock Palace, 69, Bhulabhai Desai Rd., Bombay 400026. *Trade Rep. at Calcutta:* 6-A, Middleton St., Calcutta 700016.

BURMA: *Ambassador:* U Ko Ko Lay. *Address:* Burma House, 3/50-F, Shanti Path, Chanakyapuri, New Delhi 110021.

CHILE: *Ambassador:* Vacant. *Address:* 1/13, Shantiniketan, New Delhi 110021.

CHINA (PEOPLE'S REPUBLIC OF): *Ambassador:* Shen Jian. *Address:* 50-D, Shanti Path, Chanakyapuri, New Delhi 110021.

COLOMBIA: *Ambassador:* Mrs. Nelly Turbay de Munoz. *Address:* D-82, Malcha Marg, Chanakyapuri, New Delhi 110021.

COSTA RICA: *Consul-General:* A. K. Makani. *Address:* Standard Bldg., 346, Dr. D. Naoroji Rd., Bombay 400001.

CUBA: *Ambassador:* Joze Perez Novoa. *Address:* D-5, N.D.S.E. Part II, New Delhi 110049.

CZECHOSLOVAKIA: *Ambassador:* Dr. Jaromir Nehera. (Also Amb. to Nepal). *Address:* 50-M, Niti Mrg., Chanakyapuri, New Delhi 110021.

Ag. Consul-General: Jaroslav Skokan. *Address:* "Marcopia", 5, Deshmukh Marg, Cumbala Hill, Bombay 400026. *Ag. Consul:* Ing. Petr Bonk. *Address:* 24B, Park St., Calcutta 700016.

Economic & Commercial Counsellor & Trade Representative: V. Kirsbaum, 50-M, Niti Mrg., Chanakyapuri, New Delhi 110021. *Trade Commr.:* Kasturi Bldg., Jamshedji Tata Rd., Bombay 400020. *Trade Commr.:* 24-B, Park St., Calcutta 700016.

DENMARK: *Ambassador:* Bjorn Harry Olsen. (Also Amb. to Sri Lanka, Bangladesh & Nepal). *Address:* 2, Golf Links Area, New Delhi 110003.

Hon. Consul-General: N. M. Desai. *Address:* L. & T. House, Ballard Estate, Bombay 400038. *Hon. Consul:* B. P. Bajoria. *Address:* 'McLeod House', 3, Netaji Subhas Rd., Calcutta 700001. *Hon. Consul:* K. S. Narayanan. *Address:* 8, Cathedral Rd., Madras 600086.

DOMINICAN REPUBLIC: *Consul-General (Hon.):* Vacant. *Address:* Mistry Court, 208, D. Vachha Rd., Bombay 400020.

ECUADOR: *In Charge of Consular Affairs:* Vacant. *Address:* Mistry Court, 208, D. Vachha Rd., Bombay 400020.

EGYPT (ARAB REPUBLIC OF): *Ambassador:* Amar Moussa. *Address:* 55-57, Sunder Nagar, New Delhi 110003.

Consul-General: Zaid Kamel Galal. *Address:* 12/B, Maker Tower, 1st Flr., Cuffe Parade, Colaba, Bombay 400005.

EL SALVADOR: *Consul:* Karanjaksha Bonerjee, *Address:* 12, P. K. Tagore St., Calcutta 700006 & 186, Sarat Bose Rd., Calcutta 700029.

ETHIOPIA: *Ambassador:* Brig. Gen. A. Belachew. *Address:* 7/50-G, Satya Mrg., Chanakyapuri, New Delhi 110021.

FINLAND: *Ambassador:* Dr. Risto Hyvarinen. *Address:* 25, Golf Links, New Delhi 110003.

Hon. Consul: Sam F. Joshi. *Address:* Chartered Bank Bldg., M. Gandhi Rd., Bombay 400023. *Hon. Consul:* S. K. Mehera. *Address:* 1, Bishop Lefroy Rd., Calcutta 700001. *Hon. Consul:* M. Ct. Pethachi. *Address:* 762, Mount Rd., Madras 600002.

FRANCE: *Ambassador:* Serge Boidevaix. *Address:* 2. Aurangzeb Rd., Delhi 110011. *Office of the Counsellor for Economic & Commercial Affairs:* 130, Jorbagh, New Delhi 110003. *Office of the Counsellor for Cultural, Scientific & Technical Co-operation:* K-76, Haus Khas, New Delhi 110016.

Consul-General: Jean Moraweicki. *Address:* Mercantile Bank Bldg., 52/60, M. Gandhi Rd., Bombay 400023. *Consul-General:* Jean-Paul ROBERT. *Address:* 26, Park Mansions, Park St., Calcutta 700016. *Consul-General:* Reginald Austin. *Address:* 2, Rue de la Marine, Pondicherry 605001. *Consular Agent:* Ram Das. *Address:* 7/75, Calvethy Rd., Cochin 682002.

Consul General: Jean-Paul ROBERT. *Address:* 26, Park Mansions. Park St., Calcutta 700016. *Consul-General:* Reginald Austin. *Address:* 2, Rue de la Marine, Pondicherry 605001. *Consular Agent:* Ram Das. *Address:* 7/75, Calvethy Rd., Cochin 682002.

Commercial Counsellor & Sr. Trade Commr., 130 Jor Bagh, New Delhi 110003. *Trade Commr.*, "Beacon," Foreshore Rd., Bombay 400021; *Trade Commr.*, 13, Park Mansions, Park St., Calcutta 700016.

GERMAN DEMOCRATIC REPUBLIC: *Ambassador:* Heinz Birch. *Address:* 2, Nyaya Marg, Chanakyapuri, New Delhi 110021. *Consul-General:* Helmut Hoehlig. *Address:* 122, Dinshaw Vachha Rd., Bombay 400020.

GERMANY (FEDERAL REPUBLIC OF): *Ambassador:* Rolf Ramisch. *Address:* No. 6, Block 50-G, Shanti Path, Chanakyapuri, New Delhi 110021.

Consul-General: Dr. T. Stelzehmueller. *Address:* Hoechst House, 10th Flr., Nariman Point, Bombay 400021. *Consul-General:* Harold Busse. *Address:* 1, Hastings Park Rd., Alipore, Calcutta 700027. *Consul-General:* Dr. Christian Huebener. *Address:* Mico Bldg., 22, Commander-in-Chief Rd., Egmore, Madras 600105.

GREECE: *Ambassador:* John N. Sossidis. *Address:* 16, Sunder Nagar, New Delhi 110003.

Consul-General: Anthony D. Mango. *Address:* Ralli House, 21, Raveline St., Bombay 400001. *Consul-General:* A. Bir. *Address:* C/o Stewarts & Lloyds, 41, Chowringhee Rd., Calcutta 700071. *Consul:* N. N. Langrana. *Address:* 9, Harleys Rd., Kilpauk, Madras 600010.

HAITI: *Consul:* Ranbir Singh. *Address:* Vellard View, Peddar Rd., Bombay 400026.

HOLY SEE: *Apostolic Pro Nuncio:* Archbishop Agostino Cacciavillan. *Address:* 50-C, Niti Marg, Chanakyapuri, New Delhi 110021.

HONDURAS REPUBLIC: *In Charge of Consular Affairs:* A. R. H. Ismail. *Address:* 8, Kismet, 48, Carter Rd., Bandra, Bombay 400050.

HUNGARY: *Ambassador:* Dr. Ferenc Turi. (Also Amb. to Nepal, Bangladesh, Sri Lanka and Maldives). *Address:* 2/50-M, Niti Mrg., Chanakyapuri, New Delhi 110021.

Commercial Counsellor & Trade Representative: Dr. Pal Barkoczi, 30, Golf Links Area, New Delhi 110003. *Trade Commr.:* Jozsef Mozer, 11-A, Wodehouse Rd., Bombay 400039. *Trade Commr.:* Antal Halmos, 6/2, Gurusaday Rd., Calcutta 700019.

ICELAND: *Hon. Consul-General:* D. K. Hirlekar. *Address:* 38, Western India House, Sir P. Mehta Rd., Bombay 400001.

INDONESIA: *Ambassador:* Maj. Gen. (Retd.) R. S. Sasraprawira. *Address:* 50-A, Chanakyapuri, New Delhi 110021.

Consul: Chamril D. Djavid. *Address:* 17, Altamount Rd., Cumballa Hill, Bombay 400026. *Hony. Consul:* D. K. Nag. *Address:* Rajkamal Bhawan, 126, Rosh Behari Avenue, Calcutta 700029.

IRAN (ISLAMIC REPUBLIC OF): *Ambassador:* Dr. Hasan Asadi Lari. *Address:* 5, Barakhamba Rd., New Delhi 110001.

Ag. Consul-General: Ali Salehizadeh Monshadi. *Address:* Baldota Bhawan, 117, Maharshi Karve Rd., Bombay 400020. *Consul-General:* M. Ganadha. *Address:* 8-2-502/1, Road No. 7, Jubilee Hills, Hyderabad 500034.

IRAQ: *Ambassador:* Fakhri Ahmed Qasim Al-Qaisi *Address:* 169-171, Jorbagh, New Delhi 110003.

Consul-General: H. Al-Aloousi. *Address:* "Panorama", 203, Walkeshwar Rd., Bombay 400006.

IRELAND: *Ambassador:* Bernard K. McHugh. *Address:* 13, Jor Bagh, New Delhi 110003.

ISRAEL: *Ag. Consul:* Emanuel Seri. *Address:* 50, Peddar Rd., Bombay 400026.

ITALY: *Ambassador:* Dr. Elio Pascarelli. *Address:* 13, Golf Links, New Delhi 110003.

Consul-General: Gerardo Zampaglione. *Address:* 3, Raja Santosh Rd., Alipore, Calcutta 700027. *Consul-General:* Gianluigi Paquinelli. *Address:* Vaswani Mansions, D. Vachha Rd., Bombay 400020.

Trade Commr.: G. Fiorentino, Nirmal, 21st Flr., Nariman Point, Bombay 400021.

JAPAN: *Ambassador:* Takumi Hosaki. *Address:* Plot Nos. 4 & 5, Block 50-G, Shanti Path, Chanakyapuri, New Delhi 110021.

Consul-General: Yukio Nomura. *Address:* 12, Pretoria St., Calcutta 700016. *Consul-General:* Sadao Saito. *Address:* 1, Babasaheb Dahanukar Marg, Bombay 400026. *Consul-General:* Masahiro Sasaki. *Address:* 60, Spur Tank Rd., Chetpet, Madras 600031.

JORDAN: *Ambassador:* Mohammad Ali Khurma. (Also Amb. to Nepal, Thailand & Sri Lanka). *Address:* 35, Malcha Marg, Chanakyapuri, New Delhi 110021.

Consul: Fakirmohamed K. Mistry. *Address:* Mittal Court, C Wing, 10th Flr., Room 105, Nariman Point, Bombay 400021.

KOREA (DEMOCRATIC PEOPLE'S REPUBLIC OF): *Ambassador:* Jo Chon Il. *Address:* 42-44, Sundar Nagar, New Delhi 110003.

KOREA (REPUBLIC OF): *Ambassador:* Chung-Tai Kim. *Address:* 9, Chandragupta Mrg., Chanakyapuri Extn., New Delhi 110021.

KUWAIT: *Ambassador:* Essa A. Al-Essa. *Address:* 5-A, Shantipath, Chanakyapuri, New Delhi 110021.

Consul-General: Faisal Essa Yousuf. *Address:* Vaswani Mansion, D. Vachha Rd., Bombay 400020.

LAO PEOPLE'S DEMOCRATIC REPUBLIC: *Ambassador:* Saly Khamsy. (Also Amb. to Sri Lanka, Burma & Nepal). *Address:* 20, Jor Bagh, New Delhi 110003.

LEBANON: *Ambassador:* Rabia Haidar. (Also Amb. to Nepal, Sri Lanka, Indonesia & Thailand). *Address:* 10, Sardar Patel Mrg., Chanakyapuri, New Delhi 110021.

LIBERIA: *Consul-General:* P. K. Bonerjee. *Address:* 186, Sarat Bose Rd., Calcutta 700029.

LIBYA: *Ambassador:* Vacant. *Address:* 22, Golf Links, New Delhi 110003.

MALAGASY REPUBLIC: *Hon. Consul:* C. H. Kapadia. *Address:* Ismail Bldg., Hutatma Chowk, Bombay 400001.

MEXICO: *Ambassador:* Prof. (Mrs.) Graciela de la Lama. *Address:* 10, Jor Bagh, New Delhi 110003.

MONACO: *Consul-General (Hony.):* R. Chattaram. *Address:* 114, Sunder Nagar, New Delhi 110003.

MONGOLIAN PEOPLE'S REPUBLIC: *Ambassador:* Bayaryn Jargalsaikhan. (Also Amb. to Nepal, Sri Lanka and Bangladesh). *Address:* 34, Golf Links, New Delhi 110003.

Consul-General: Harry A. Cahill. *Address:* "Lincoln House", 78, B. Desai Rd., Bombay 400026. *Consul-General:* Walker A. Diamanti. *Address:* 5/1, Ho Chi Minh Sarani, Calcutta 700071. *Consul-General:* Daniel F. Waterman. *Address:* Mount Rd., Madras 600006.

YEMEN (PEOPLE'S DEMOCRATIC REPUBLIC OF): *Ambassador:* Ali Aidroos Yehya. *Address:* 29, Mahatma Gandhi Mrg., Lajpat Nagar IV, New Delhi 110024.

Consul-General: Rashid Nasser Al Lamki. *Address:* 112, Maker Chamber IV, N. Point, Bombay 400021.

PANAMA: *Ambassador:* Horacio Bustamende. *Address:* S-260, Greater Kailash II, New Delhi 110048.

PERU: *Ambassador:* Vacant. *Address:* D1/39, Vasant Vihar, New Delhi 110057.

Chamber IV, N. Point, Bombay 400021.

PAKISTAN: *Ambassador:* Dr. M. Humayun Khan. *Address:* 2/50-G, Shantipath, Chanakyapuri, New Delhi 110021.

MOROCCO: *Ambassador:* Larbi Mouline. *Address:* 33, Archbishop Makarios Mrg., New Delhi 110003.

NEPAL: *Ambassador:* Jagdish Rana. *Address:* Barakhamba Rd., New Delhi 110001.

Consul-General: Durga Prakash. *Address:* 19, Woodlands, Sterndale Rd., Alipore, Calcutta 700027.

NETHERLANDS: *Ambassador:* Adriaan van der Willigen. (also Amb. to Nepal). *Address:* 6/50F, Shanti Path, Chanakyapuri, New Delhi 110021. (Embassy looks after the diplomatic affairs of the Grand Duchy of Luxembourg).

Consul-General: J. T. A. Bos. *Address:* 3rd Flr., "International", 16, Maharshi Karve Rd., Bombay 400020. *Vice-Consul:* Mrs. R. Xavier. *Address:* 18-A, Brabourne Rd., Calcutta 700001. *Vice-*

Consul: V. K. Shetty. *Address:* Chordia Mansion, 150/A-2, Anna Salai, Madras 600002.

NICARAGUA: *Hon. Consul:* S. J. Rege. *Address:* 8/83, Poornand Saraswati Co-op. Housing Society, Banganga Rd., Walkeshwar, Bombay 400026.

NORWAY: *Ambassador:* Tancred Ibsen. (Also Amb. to Sri Lanka, Bangladesh & Nepal). *Address:* Kautilya Marg, Chanakyapuri, New Delhi 110021.

Consul-General: Carsten Gylseth. *Address:* Nowroji Mansion, 31, Nathalal Parekh Mrg., Bombay 400039. *Consul:* A. K. Thiagarajan. *Address:* SF India Ltd., 6, Poonam Bldg., 5/2, Russel St., Calcutta 700071. *Consul:* P. J. Weavers. *Address:* Harrissons & Crossfield Ltd., P. Box 502, Cochin 682003. *Consul:* C. D. Gopinath. *Address:* Parry House, 43, Moore St., Madras 600001.

OMAN (SULTANATE OF): *Ambassador:* Abdullah Said Rashid Al-Baluchi. *Address:* 16, Palam Mrg., Vasant Vihar, New Delhi 110057.

Consul-General: Rashid Nasser Al Lamki. *Address:* 112, Maker Chamber IV, N. Pont, Bombay 400021.

PAKISTAN: *Ambassador:* Dr. M. Humayun Khan. *Address:* 2/50-G, Shantipath, Chanakyapuri, New Delhi 110021.

PANAMA: *Ambassador:* Miss Irma Ritter. *Address:* S-260, Greater Kailash II, New Delhi 110048.

PERU: *Ambassador:* Vacant. *Address:* D1/39, Vasant Vihar, New Delhi 110057.

Incharge of Consular Affairs in New Delhi and Bombay: Pablo C. Ontaneda, Embassy of Peru; *Hon. Consul:* Ardeshir B. K. Dubash. *Address:* 6, K. Dubash Mrg., Bombay 400023. *Hon. Consul:* Sorab Barjor Aibara. *Address:* 37, Chowringhee, Calcutta 700071.

PHILIPPINES: Ambassador: Emiliu D. Bejasa. (Also Amb. to Nepal). *Address:* 50-N, Nyaya Marg, Chanakyapuri, New Delhi 110021.

Hon. Consul-General: K. R. Patel. *Address:* 10, Lall Bazar St., Calcutta 700001. *Hon. Consul-General:* M. A. Chidambaram. *Address:* SPIC Bldg., 97 Mount Rd., Guindy, Madras 600032. *Hon. Consul-General:* A. V. Birla. *Address:* 159, Churchgate Reclamation, Bombay 400020.

POLAND: *Ambassador:* Ryszard Fijalkowski. *Address:* 50-M, Shanti Path, Chanakyapuri, New Delhi 110021.

Consul: Henryk Nawrocki. *Address:* Manavi Apartments, 36, Ridge Rd., Malabar Hill, Bombay 400006. *Consul:* Jan Folta. *Address:* 3B, Albert Rd., Calcutta 700017.

Commercial Counsellor: Slawian Krzywinski. *Address:* Polish Commercial Counsellor's Office, 50-M, Shantipath, Chanakyapuri, New Delhi 110021.

PORTUGAL: *Ambassador:* Dr. Antonio de Menezes Cordeiro. *Address:* A-24, West End Colony, New Delhi 110021.

Hon. Consul: Surendra Dempo. *Address:* Moti Mahal, 3rd Flr., 195, J. Tata Rd., Bombay 400020.

QATAR: *Ambassador:* Dr. Hassan Ali Hussain al Nimah. *Address:* A-3, West End Colony, New Delhi 110021.

Consul-General: Abdulla Hassan Al Thawadi. *Address:* Bajaj Bhawan, Nariman Point, Bombay 400021.

ROMANIA (SOCIALIST REPUBLIC OF): *Ambassador:* Dr. Nicolae Finantu. *Address:* A-52, Vasant Mrg., Vasant Vihar, New Delhi 110057.

Trade Representation of Socialist Republic of Romania in India, 17, Kautilya Mrg., New Delhi 110021; Apeejay House, 1st Flr., D. Vachha Rd., Bombay 400020; 27, Khader Nawaz Khan Rd., Madras 600006.

SAN MARINO: *Consul-General (Hony.):* Gr. Uff. Bhai Mohan Singh. *Address:* 15, Aurangzeb Rd., New Delhi 110011.

SAUDI ARABIA: *Ambassador:* Vacant. *Address:* 1, Ring Rd., Kilokri, New Delhi 110014.

Consulate: Maker Tower F., 4th Flr., Cuffe Parade, Colaba, Bombay 400005.

SEYCHELLES: *Hon. Consul:* G. B. Bhat. *Address:* Director (Exports), Tata Engg. & Locomotive Co. Ltd., Shivsagar Estate, Worli, Bombay 400018.

SOMALI DEMOCRATIC REPUBLIC: *Ambassador:* Vacant. *Address:* B-23, Greater Kailash 1, New Delhi 110048.

SPAIN: *Ambassador:* Enrique Mahou. *Address:* 12, Prithviraj Rd., New Delhi 110011.

Vice-Consul: Mrs. Kulsum Ardeshir Dubash. *Address:* "Ador House", 6, K. Dubash Mrg., Bombay 400023. *Vice-Consul:* Avijit Mazumdar. *Address:* P. O. Box 323, Calcutta 700024. *Vice-Consul:* Chevalier George P. J. Lobo. *Address:* "Lawdale", 8, Nimmo Rd., San Thome, Mylapore, Madras 600004.

SUDAN: *Ambassador:* Abdel Moneim M. Mustafa. (Also Amb. to Sri Lanka, Indonesia, Thailand & Malaysia). *Address:* M-14, N.D.S.E. Part II. New Delhi 110049.

SWEDEN: *Ambassador:* Axel Edelstam. (Also Ambassador to Nepal and Sri Lanka). *Address:* Nyaya Marg, Chanakyapuri, New Delhi 110021. *Development Co-opn. Office:* A10/7, Vasant Vihar, New Delhi 110057. *Commercial Section:* Swedish Embassy, Chanakyapuri, New Delhi 110021.

Consul-General: Akbar Hydari. *Consul:* A. F. Modi. *Address:* Indian Mercantile Chambers, Nicol Rd., B. Estate, Bombay 400038. *Consul:* Arun Thiagarajan. *Address:* C/o SF India Ltd., 6, Poonam Bldg., 5/2, Russel Street, Calcutta 700071. *Consul:* G. Rundberg. *Address:* 71, First Main Rd., Raja Annamalaipuram, Madras 600028.

SWITZERLAND: *Ambassador:* Peter S. Erni. (Also Amb. to Nepal & Bangladesh). *Address:* Nyaya Marg, Chanakyapuri, New Delhi 110021.

Consul-General: Henri Ginier. *Address:* Manek Mahal, 90, Veer Nariman Rd., Bombay 400020.

SYRIAN ARAB REPUBLIC: *Ambassador:* Mohamad Khodor. *Address:* 28, Vasant Mrg., Vasant Vihar, New Delhi 110057.

Consul-General: Sobhi Elejel. *Address:* Cambatta Bldg., 3rd Flr., J. Tata Rd., Bombay 400020.

THAILAND: *Ambassador:* Birath Israsena. *Address:* 56-N, Nyaya Marg, Chanakyapuri, New Delhi 110021.

Consul-General: Thamnong Charurat. *Address:* 18-B, Mandeville Gardens, Ballygunge, Calcutta 700019.

Consul-General: Pramul Prijyanonda. *Address:* Krishnabad, 43, Bhulabhai Desai Rd., Bombay 400026.

TUNISIA: *Ambassador:* Abderraouf Ounaies. *Address:* B 9/22, Vasant Vihar, New Delhi 110057.

TURKEY: *Ambassador:* Ildeniz Divanlioglu. *Address:* Plot No. 4, Block "N-50", Chanakyapuri, New Delhi 110021.

Hon. Consul-General: Dr. Shiraz Mistry. *Address:* 208, D. Vachha Rd., Bombay 400020. *Hon. Consul-General:* Mrs. Gulden Bose. *Address:* 2, Nazarali Lane, Ballygunge, Calcutta 700019.

U.S.S.R.: *Ambassador:* Vasily N. Rykov. *Address:* Shanti Path, Chanakyapuri, New Delhi 110021.

Consul-General: Alexei Kashirin. *Address:* "Palm Beach", 42, L. Jagmohandas Mrg., Bombay 400036. *Consul-General:* Y. Sepelev. *Address:* 31, Shakespeare Sarani, Calcutta 700016. *Consul-General:* M. Belkov. *Address:* 9, Santhome High Rd., Madras 600004.

Trade Representation of U.S.S.R. in India, Plots Nos. 6 & 7, Block 50-E, Nyaya Mrg., Chanakyapuri, New Delhi 110021; Felan, Alipur Avenue 7, Calcutta 700027; "Avantika", 46, Dr. G. Deshmukh Mrg., Bombay 400026; 50-A, St. Mary's Rd., Alwarpet, Madras 600001. *Showrooms of Soviet Books and Periodicals:* G-56, Connaught Place, New Delhi 110001; 75/C, Park Street, Calcutta 700016; Vasundhara House, Bhulabhai Desai Rd., Bombay 400026.

UNITED ARAB EMIRATES: *Ambassador:* Abdul Aziz Bin Nasser Al-Owais. *Address:* A-7, West End, Rao Tula Ram Mrg., New Delhi 110021.

Consul-General: Ebrahim Jawad Al Ridha. *Address:* Bungalow No. 7, Jolly Maker Apartments, Cuffe Parade, Colaba, Bombay 400005.

UNITED STATES OF AMERICA: *Ambassador:* Harry G. Barnes Jr. *Address:* Shanti Path, Chanakyapuri, New Delhi 110021.

Consul-General: Harry A. Cahill. *Address:* "Lincoln House", 78, B. Desai Rd., Bombay 400026. *Consul-General:* George F. Sherman. *Address:* 5/1, Ho Chi Minh Sarani, Calcutta 700071. *Consul-General:* Daniel F. Waterman. *Address:* Mount Rd., Madras 600006.

UPPER VOLTA: *Consul-General:* P. K. Bonerjee. *Address:* 186, Sarat Bose Rd., Calcutta 700029.

VENEZUELA: *Ambassador:* Eduardo Soto-Alvarez. *Address:* N-114, Panchshila Park, New Delhi 110017.

VIETNAM (SOCIALIST REPUBLIC OF VIETNAM): *Ambassador:* Nguyan Van Sinh. *Address:* 35, Prithviraj Rd., New Delhi 110011.

YEMEN ARAB REPUBLIC: *Consulate:* 128B, Mittal Towers, N. Point, Bombay 400021.

YEMEN (PEOPLES'S DEMOCRATIC REPUBLIC OF): *Ambassador:* Ali Aidroos Yehya. *Address:* 29, Mahatma Gandhi Mrg., Lajpat Nagar IV, New Delhi 110024.

Consul-General: Yasien Othman Dahyan. *Address:* Maker Tower 'F', 10th Floor, Flat No. 102 'A', Cuffe Parade, Colaba, Bombay 400005.

YUGOSLAVIA (SOCIALIST FEDERAL REPUBLIC OF): *Ambassador:* Danilo Vilanovic. *Address:* 3/50G, Niti Mrg., Chanakyapuri, New Delhi 110021.

Consul-General: Vacant. *Address:* Vaswani Mansions, 120/4, D. Vachha Rd., Bombay 400020. *Consul-General:* Vacant. *Address:* 41/1B, Jhowtolla Rd., Panchsheel Bldg., Flat No. 3D, Calcutta 700019.

Trade Commr.: Stjepan Brlecic, Vaswani Mansions, 120/4, D. Vachha Rd., Bombay 400020. Madras Office, 9, Venus Colony, Madras 600018.

ZAIRE REPUBLIC: *Ambassador:* Bagbeni Adeito. *Address:* 160, Jorbagh, New Delhi 110003.

HIGH COMMISSIONS

AUSTRALIA: *High Commissioner:* Graham B. Feakes. *Address:* 1/50G, Shanti Path, Chanakyapuri, New Delhi 110021. *Commercial Counsellor*, Brian Leedham, 1/50G Shantipath, Chanakyapuri, New Delhi 110021.

Consul-General: Ian Tricks. *Address:* 16th Flr., 'E' Block, Maker Towers, Cuffe Parade, Colaba, Bombay 400005.

BANGLADESH: *High Commissioner:* Air Vice Marshal A. K. Khandekar (also High Commr. to Mauritius). *Address:* 56, Ring Rd., Lajpatnagar, New Delhi 110024.

BRITAIN: *High Commissioner:* Robert L. Wade-Gery, C.M.G. *Address:* Shanti Path, Chanakyapuri, New Delhi 110021. *British Council Divn.:* AIFACS Bldg., Rafi Mrg., New Delhi 110001. *Deputy High Commr.:* A. V. Hayday. *Address:* 1, Ho Chi Minh Sarani, Calcutta 700016. *Deputy High Commr.:* Colin Imray. *Address:* Mercantile Bank Bldg., Mahatma Gandhi Rd., Bombay 400023. *Deputy High Commr.:* Tom Stubbs. *Address:* 24, Anderson Rd., Madras 600006.

R. C. Beetham, M.V.O., *Counsellor (Economic & Commercial)*, British High Commn., Shantipath, Chanakyapuri, New Delhi 110021. First Secretary (Comml.), Dy. High Commn., 1, Ho Chi Minh Sarani, Calcutta 700016. First Secretary (Comml.), Dy. High Commn., Mercantile Bank Bldg., M. Gandhi Rd., Bombay 400023. Second Secretary (Comml.), Dy. High Commn., 24, Anderson Rd., Madras 600006.

CANADA: *High Commissioner:* William T. Warden. (Also Amb. to Nepal). *Address:* 7/8, Shantipath, Chanakyapuri, New Delhi 110021.

Counsellor (Commercial), Canadian High Commission, Shantipath, Chanakyapuri, New Delhi 110021.

CYPRUS: *High Commissioner:* Antonios J. Vakis. *Address:* 52, Jor Bagh, New Delhi 110003.

GHANA: *Ag. High Commissioner:* Kwame Sarah-Mensah. *Address:* A-42, Vasant Mrg., Vasant Vihar, New Delhi 110057.

GUYANA: *High Commissioner:* S. S. Naraine, A. A. (Also High Commr. to Sri Lanka). *Address:* 85, Poorvi Mrg., Vasant Vihar, New Delhi 110057.

KENYA: *High Commissioner:* S. O. Mageto. (Also High Commr. to Sri Lanka). *Address:* 66, Vasant Mrg., Vasant Vihar, New Delhi 110057.

MALAYSIA: *High Commissioner:* Razali Ismail. *Address:* 50-M, Satya Mrg., Chanakyapuri, New Delhi 110021. *Asst. High Commr.:* Mohamed Fauzi bin Yon. *Address:* 560, Anna Salai, Teynampet, Madras 600018.

Hon. Consul: Dr. J. N. Banerjee. *Address:* Sandoz (India) Ltd., Sandoz House, Dr. A. Besant Rd., Bombay 400018.

MAURITIUS: *High Commissioner:* Anund Priyay Newoor. *Address:* 5, Kautilya Marg, Chanakyapuri, New Delhi 110021.

NIGERIA: *High Commissioner:* T. O. Asiwaju-Dada. (Also Amb. to Thailand & Burma and High Commr. to Bangladesh & Sri Lanka). *Address:* 21, Palam Mrg., Vasant Vihar, New Delhi 110057.

SINGAPORE: *High Commissioner:* Chang Keng Howe. *Address:* B-70, Greater Kailash 1, New Delhi 110048

SRI LANKA (DEMOCRATIC SOCIALIST REPUBLIC OF): *High Commissioner:* Bernard Tilakaranta. *Address:* 27, Kautilya Marg, Chanakyapuri, New Delhi 110021. *Dy. High Commissioner:* K. N. Samarasinghe. *Address:* No. 9-D, Nawab Habibulla Avenue, Anderson Rd., Madras 600006.

Consul: M. G. Hewage. *Address:* Sri Lanka House, 34, Homi Mody St., Bombay 400023.

TANZANIA: *High Commissioner:* Vacant. *Address:* 27, Golf Links, New Delhi 110003.

TRINIDAD & TOBAGO: *High Commissioner:* Nathan Hazel. *Address:* 131, Jor Bagh, New Delhi 110003.

UGANDA: *High Commissioner:* Gurdial Singh. *Address:* 61, Golf Links, New Delhi 110003.

ZAMBIA: *High Commissioner:* A. M. Phiri. *Address:* 14, Jor Bagh, New Delhi 110003.

U. N. & OTHER BODIES IN INDIA

UNITED NATIONS, 55, Lodi Estate, New Delhi 110003.

United Nations Development Programme (UNDP)

It is the world's largest multi-national source of preinvestment assistance and technical co-operation. It makes available to the developing nations the combined knowledge, expertise & experience of the United Nations family of agencies. *Resident Rep.:* M. J. Priestley.

United Nations Information Centre, 55, Lodi Estate, New Delhi 110003.

The Centre maintains a close working relationship with national and local information media, institutions, govtl. information services & non-govtl. organisations on matters relating to the dissemination of information about the U. N. and the specialized agencies. *Dir.:* Dr. Salim Saleem.

U. N. Children's Fund (UNICEF)

Rengl. Office for Afghanistan, Sri Lanka, India, Bhutan, Maldives, Nepal & Mongolia, UNICEF House, 73-74, Lodi Estate, New Delhi 110003.

Zone Offices: Mid-North India Office, L-18, Green Park, New Delhi 110016; *East India Office*, 26, Lee Rd., Calcutta 700020; *South India Office*, 29, Jossier St., Nungambakkam, Madras 600034; *South East India Office*, 16, Uma Nagar, Begumpet, Hyderabad 500016; *Upper India Office*, 3, Fawn Brake Ave., Opp. Sarojini Naidu Mrg., Lucknow 226001; *West India Office*, Ravindra Mansion, D. Vachha Rd., Bombay 400020. *State Offices: Bihar:* Lal Bahadur Shastri Nagar, Patna 800023; *Tamil Nadu:* Ex-Legislators' Hostel Annexe, Govt. House Estate, Mount Road, Madras 600002; *Madhya Pradesh:* E-1/117, Arera Colony, Bhopal; *Chandigarh:* House 752, Sector 8-B, Chandigarh 160008.

UNICEF is currently assisting programmes in the fields of child health, nutrition, water & sanitation, edn. & welfare in 112 countries by putting voluntary contributions from 135 governments, donations from the public-at-large and the sale proceeds of UNICEF greeting cards to practical use.

UNICEF also provides emergency and rehabilitation assistance to countries as and when need arises.

UNICEF's primary concern in India is the strengthening of national services for children and women through long-range programmes covering child nutrition, health, water supply and environmental sanitation, food and village technology; edn. & integrated area development programmes. *Regional Dir. of South Central Asia:* David P. Haxton.

International Bank for Reconstruction and Development (World Bank): 55, Lodi Estate, New Delhi 110003.

International Committee of the Red Cross, Indian Red Cross Society Bldg., 1, Red Cross Rd., New Delhi 110001.

International Labour Organisation (Area Office), 7, Sardar Patel Marg, New Delhi 110021.

Established in India in 1928. Covers Bhutan, India and Republic of Maldives. It maintains contacts and relations with the Governments, workers' and employers' organisations, and various insttns. in the regn. It assists in the promotion of International Labour Standards. It explores the needs for technical co-operation and assists in preparation and implementation of projects within the ILO's fields of competence. The Office collects & disseminates information that is of relevance and interest to the regn. & to its Hqrs. in Geneva. The Office also prospects candidates for ILO assignments abroad. It has a good reference library & undertakes the sale of ILO publications. *Dir.*, S. Sankar Narayanan.

United Nations Educational, Scientific and Cultural Organisation (UNESCO): Regnl. Office for Science & Technology for South & Central Asia, and Office of the UNESCO Rep. to India, 17, Jor Bagh, New Delhi 110003. *Dir. & UNESCO Rep.*, Dr. M.P. Derkatch.

Food & Agriculture Organization of the United Nations (FAO): 55, Max Mueller Mrg., New Delhi 110003. *Rep.*, Dr. E. Bojadzievski.

UN/FAO World Food Programme (WFP): 55, Lodi Estate, New Delhi 110003. *Rep.*, Michael J. Priestley.

World Health Organization, Regnl. Office for South-East Asia: World Health House, Indraprastha Estate, Ring Rd., New Delhi 110002. *Regnl. Dir.*, Dr. U. Ko Ko.

U. N. Military Observer Group in India & Pakistan, 1/AB, Purana Qila Rd., New Delhi 110001.

Afro-Asian Rural Reconstruction Organization, C/117-118, Defence Colony, New Delhi 110024.

To restructure the economy of the rural masses in African and Asian continents and to explore collectively opportunities for co-ordination of efforts for promotiong welfare and eradication of thirst, hunger, disease and poverty amongst the rural people. Activities include launching of Integrated Rural Devpt. Pilot Projects; organising Intnl. seminars at AARRO'S own trg. centres—Research & Education Centre of AARRO (RECA), Japan, & Afro-Arab Trg. Centre (AATC), Egypt, and in other member countries; award of individual fellowships for trg. at SIET Instt. (India), and EICA (Egypt), Punjab Agrl. University (India) etc. *Members:* 12 African & 15 Asian countries & the Central Union of Agricultural Cooperatives (CUAC) Japan. *Pres.:* Republic of Korea; *Vice-Press:* State of Mauritius & United Arab Emirates; *Secy-Genl.:* Dr. B. S. Minhas; *Pubn.:* "Rural Reconstruction"

Asian-African Legal Consultative Committee, 27, Ring Rd., Lajpatnagar IV, New Delhi 110024.

League of Arab States Mission, 62, Golf Links, New Delhi 110003.

Palestine Liberation Organization, 3/22, Shantiniketan, New Delhi 110021.

LATE PARTICULARS

INDUSTRIAL POLICY

In July, 1980, the Government of India placed before Parliament a new statement on Industrial Policy. It stressed the need to increase industrial production through optimum utilisation of capacity and expansion of industries as part of a wider strategy to restore the industrial economy of the country to a state of health. Though the main thrust of the policy is to initiate measures to overcome the obstacles to sustained growth in the industrial sector and thus reverse the setback it suffered in the recent past, the revised Industrial Policy draws inspiration from, and broadly adheres to, the basic framework of the earlier Industrial Policy enunciated in 1956.

Salient Features: The broad objective of the new Industrial Policy is to remove the bottlenecks in the way of rapid industrial advance and to provide for an integrated structure which would permit industry to progress on a wide front—from the tiny sector to the large sector—with each segment of the industry interlinked to its next segment. This, it is hoped, would facilitate all-round industrial development in accordance with national priorities and goals.

The policy aims at generation of employment, correction of regional imbalance and promotion of export-oriented and import-substitution industries. It intends to usher in an economic federalism through the coordinated development of small, medium and large enterprises, equitable trend in investments and consumer protection against high prices and poor quality of goods. Accent is laid on the dispersal of industries to backward regions and on achieving an optimum intersectoral relationship.

The foremost task, identified by the Industrial Policy statement, is the revival of the economy by solving the problems of shortages of major industrial inputs like energy, transport and coal. It emphasises the need to extend the benefits of industrialisation to all sections of the population so as to boost the per capita incomes.

The statement reiterates the Government's commitment about the public sector which would continue to occupy a commanding position in the country's economic framework. The increasingly important role played by the public sector in the general revival of the Indian industry has been reemphasised. The private sector is also expected to play its role within the framework of the socio-economic policy of the state and the relevant legislation enacted in this regard. Growth of monopolistic tendencies for concentration of economic power and wealth in a few hands is not to be permitted in consonance with the overall objectives.

The new Industrial Policy makes it clear that the Government would consider sympathetically requests for establishing new units, the entire production would be exported or requests for expansion of existing units exclusively for exports or requests for higher production for exploiting the emerging export potential.

The statement emphasises export promotion. Also, regularisation of actually installed capacity has been permitted in 34 industries. Exports will not count against licensed capacity. Diversification is freely permitted within licensed capacity for specific industries.

Industrial Policy Developments—1983-84: Industrial Policy for 1983-84 continued to further the objectives underlying the Industrial Policy Statement of July 1980. The scheme of re-endorsement of capacities on the basis of past performance in production, introduced in April 1982, was extended to 1983-84. Re-endorsement of capacity will be done on the basis of the highest level of production achieved during the five years ending 1982-83, plus one-third thereof in the case of industries which have not availed of the scheme during 1982-83. In case of industries whose production during 1982-83 was higher than the capacity already endorsed, re-endorsement will be done on the basis of the production during 1982-83, plus one-third thereof. Government has also announced that further re-endorsement of capacity would be allowed during 1984-85 in the case of industries which are able to achieve production higher than the capacity already endorsed during 1983-84. This is intended to enable the industrial undertakings to maximise production without any capacity constraint. For the MRTP and FERA companies, this facility is available for a specific list of industries.

Nine industries which are deemed to be national importance have been exempted from the provisions of sections 21 and 22 of the MRTP Act. This is subject to the condition that not less than 20 per cent of the project cost should be the promoter's contribution and that the debt-equity ratio is not more than 2:1.

In order to promote equitable regional dispersal of industries and to relieve the congestion of thickly populated urban areas, industrially backward areas have been classified into 3 categories for the purpose of investment incentives. Additional incentives have been given to Industry to set up units in 'no industry' districts or in areas falling within the three categories with enhanced subsidies as follows:

Category 'A': This comprises 'no industry' districts plus special regions (118 districts). The Central investment subsidy will be 25 per cent of the investment subject to a ceiling of Rs. 25 lakhs.

Category 'B': This comprises districts currently eligible for Central subsidy minus districts included in Category A (55 districts). Investment subsidy will be 15 per cent subject to a maximum of Rs. 1.5 million.

Category 'C': This comprises the existing 246 concessional finance districts minus those included in Categories A and B (113 districts) **Investment subsidy will be 10 per cent subject to a maximum of Rs. 1.0 million.**

In addition to subsidy, all these three categories will also be eligible for concessional finance.

In this context, some of the other policy measures in force may be noted.

Blocks/taluks/urban agglomerations extension of townships in Categories B and C districts where investments have exceeded Rs. 300 million as on March 31, 1983 will not be eligible for further investment subsidy or concessional finance.

State governments will be assisted to take up infrastructural development in one or more identified growth centres in each 'no industry' district.

MRTP/FERA companies will be permitted to enter non-Appendix 1 industries which are not reserved for small scale sector with export obligation of 50 per cent (for setting up industreis in categories B and C) and 30 per cent (for category C districts).

For providing larger employment opportunities through the establishment of ancillary industries in these areas, certain industrial units will be recognised as nucleus plants which would also be eligible for Central subsidy.

Subject to certain conditions, the exemption limit for licensing of industrial units have been raised from Rs. 30 million to Rs. 50 million.

Further measures were taken during 1983-84 to attract investments in India by non-resident Indians. For the expeditious clearance of all industrial proposals emanating from non-resident Indians, a Special Approval Committee has been constituted to decide and monitor all applications received from non-resident Indians involving industrial licences/registrations/permission, foreign collaborations and import of capital goods. Procedures have been streamlined so that all applications from non-resident Indians would be processed and finalised within a period of 45 days.

In a radical departure from the earlier policy under which the financial institutions exercised only minimum functions in companies which have received assistance from them, the Government has now issued fresh guidelines that would increase the participation of these institutions in the affairs of the aided companies in a variety of ways. The revised guidelines which became effective from March 1, 1984, relate to the norms for conversion of loans into equity, the mechanics of conversion and the appointment and role of nominee directors. While the nominee directors would be appointed in all MRTP companies, their appointment is only on a selective basis in non-MRTP companies. In the case of the latter, the guidelines stipulate a number of conditions. In the case of MRTP companies, the nominee directors would be required to scrutinise such details as share transactions, inter-corporate investments including award of contracts and the expenditure of top management personnel. The guidelines make it clear that the financial institutions should create a special department cell with officials at the level of general managers and deputy general managers whose exclusive and wholetime function would be to represent the institutions on the boards of companies.

AWARDS AND PRIZES

Republic Day Awards (1984): Padma Sri: Col. D. K. Khuller, Miss Bachendri Pal and Phu Dorjee, leader and teammates, respectively, of the successful Everest expedition.

Defence Awards: Kirti Chakra: Anatoly Berezovoi and Georgy Grechko, the two Soviet cosmonauts of the back-up crew in the Indo-Soviet space mission in 1984.

Jnanpith Award (1983): Masti Venkatesh Iyengar awarded for his Kannada novel 'Chikaveera Rajendra.'

Bajaj Awards (1984): Recipients: (1) Popatlal Ramchand Shah of Pune; (2) Mohan Narhari Parikh of Bardoli and (3) Ms. Gaura Devi of Simla.

Nehru Award: International Understanding: 1982: Dr. Leopold Sedar Senghor (Senegal); 1983: Dr. Bruno Kreisky (Austria).

National Film Awards 1983: Lotus Awards:

Best Feature Film: 'Adi Shankaracharya' (Sanskrit) produced by National Film Development Corporation and directed by G. V. Iyer.

Second Best Feature Film: 'Maya Mrigya' (Oriya) directed by Nirad N. Mohapatra.

Nargis Dutt Award for Best Feature Film on National Integration: 'Sookha' (Hindi) produced and directed by M. S. Sathyu.

Language-wise: *Assamese:* 'Alokar Ahban'; *Bengali:* 'Vasundhara'; *Hindi:* 'Ardh Satya'; *Kannada:* 'Banker Margayya'; *Malayalam:* 'Malamukalilae Daivam'; *Manipuri:* 'Sanakeithal'; *Marathi:* 'Smriti-Chitre'; *Oriya:* 'Neerabha Jhada'; *Tamil:* 'Oru Indhiya Kanavu'; *Telugu:* 'Rangulakala'.

Best Actor: Om Puri (Ardh Satya); *Best Actress:* Shabana Azmi (Khandhar); *Best Child Artiste:* Master Suresh (Malamukalilae Daivam); *Best Director:* Mrinal Sen (Khandhar); *Best Male Playback Singer:* S. P. Balasubramaniam (Saagara Sangamam); *Best Female Playback Singer:* P. Suseela (MLA, Edukondalu); *Best Music Director:* Ilaya Raja (Saagara Sangamam).

First Best Film of a Director: Jane Bhi Do Yaron (Hindi) by Kundan Shah.

Best Children's Film: Bhombol Sardar (Bengali) by Nripen Ganguli.

Best Book on Cinema: 'Cinemayude Lokam' (Malayalam) by Adoor Gopalkrishnan. *Best Promotional Film:* 'Ekta Aur Anushasan' (Hindi) directed by S. K. Sharma. *Best Experimental Film:* 'The Clown and the Dog' (English) directed by Sunny Joseph. *Best Animation Film:* 'Fire games' and 'A race with death' directed by Ram Mohan and Yash Chowdhary, respectively. *Best News Film Cameraman:* C. Ramani, for Indian News Review (No. 1799). *Best Indian News Review:* 'Shelter', produced by Film and Television Institute of India. *Best Art Direction:* Nitish Roy (Mandi) (Hindi). *Best Information Film:* 'The Procession' directed by Anjan Bose. *Best Screenplay:* G. V. Iyer (Adi Shankaracharya). *Best Cinematography* (Colour): Madhu Ambat (Adi Shankaracharya). *Best Audiography:* Ramanathan (Adi Shank-

aracharya). *Best Editing:* Mrnmoy Chakravorty (Khandhar). *Special Jury Award:* Ravi Varma (Nokkukuthi).
Phalke Awards: Durga Khote (veteran film actress), 1984.

BANKING

K. Sadananda Shetty appointed chairman and managing director of Vijaya Bank.

CIVIL AVIATION

Capt. A. M. Kapoor and Capt. D. K. Bose appointed full-time chairman and managing director, respectively, of Air India.

MOUNTAINEERING

Col. D. K. Khuller, leader of the Indian expedition and two members of the team, Miss Bachendri Pal and Phu Dorjee successfully scaled Mount Everest in May, 1984.

GOVERNMENT OF INDIA PERSONNEL

Central Cabinet reshuffle : The Central Cabinet was reshuffied on September 7, the Prime Minister making the following changes: K. Vijaya Bhaskara Reddy, industries portfolio; Pranab Mukherjee, commerce portfolio in addition to the finance portfolio; Veerendra Patil, Labour Minister, to look after shipping and transport; S.M. Krishna, Minister of State, shifted to commerce; N.R. Laskar shifted to industry.

Ministry of Industry
P.K. BASU, Secretary, Deptt. of Mines is also Secretary, Deptt. of Steel in the Ministry of Steel & Mines.

New Lt.– Governors :

Mr. Tribhuvan Prasad Tewary, retired chief secretary of UP, has been appointed Lt. – Governor of Pondicherry.

Dr. Gopal Singh has been appointed Lt. Governor of Goa, Daman and Diu and administrator of Dadra and Nagar-Haveli.

STATE GOVERNMENT PERSONNEL

Andhra Pradesh
Governor : Dr. Shankar Dayal Sharma.

Andhra Ministry. N.T. Rama Rao, who was dismissed a month ago by the controversial Ram Lal, the then Governor, was sworn in along with a batch of 8 Ministers at Raj Bhavan on Sunday afternoon, September 16

Maharashtra
Chief Secretary, B.K. Halve.

Tamil Nadu
S.D. Somasundaram has been dropped from the Ministry and two new Ministers have been inducted — T. Veerasamy *(Food. Price Control, etc.)* & K.K.S. Ramachandran *(Co-operation).*

FOREIGN DIPLOMATIC REPRESENTATIVE IN INDIA

Consul-General for Syria in Bombay is dead.

UN Assembly Session :

The 39th session of UN General Assembly opens in New York on September 18 in a mood of cynicism among diplomats about the ability of the world organisation to achieve a dramatic breakthrough on any of the outstanding international issues.

Whether it is West Asia, the Iran-Iraq war, Afghanistan, Namibia, or Central America, there seems to be little prospect or hope for a significant advance or movement.

Apart from the fact that the continuing great power tensions inhibit the process of constructive use of the United Nations to settle disputes and crises, the US preoccupation with Presidential elections is also seen as a contributory factor for lack of enthusiasm among diplomats over the ensuing session.

Sino – Indian Talks:

Indian and China began a fifth round of border talks in Beijing on September 17.

Statement about ownership and other particulars about newspaper entitled "The Times of India Directory & Yearbook" (including Who's Who)—1984. Bombay, as required to be published in the first issue every year after last day of February.

FORM IV (See Rule 8)

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5. Editor's Name :	Shri Girilal Jain.
Whether Citizen of India :	Yes.
Address :	22, Ashoka Apartments, Nepean Sea Rd., Bombay 400 006.

6. Names and addresses of individuals who own the newspaper and partners or shareholders holding more than one per cent of the total Paid-up Capital as on 29-2-1984 :

SHAREHOLDERS

1. Shri Ashok Kumar Jain,
Shantiniketan,
14th Floor,
8, Camac Street,
Calcutta 700 017.

2. Ashoka Holdings Ltd.,
P.N.B. House, 3rd Floor,
5, Parliament Street,
New Delhi 110 001.

3. Ashoka Viniyoga Ltd.,
14, Govt. Place East,
Calcutta 700 001.

4. Bharat Nidhi Ltd.,
Times House, 4th Floor,
7, Bahadurshah Zafar Marg,
New Delhi 110 002.

5. Miss Nandita Jain,
Shantiniketan, 12th Floor,
8, Camac Street,
Calcutta 700 017.

6. PNB Finance & Industries Ltd.,
R/45-47, Connaught Place,
New Delhi 110 001.

7. Messrs. Sahu Jain Ltd.,
Times House, 4th Floor,
7, Bahadurshah Zafar Marg,
New Delhi 110 002.

8. Messrs. Sahu Properties Ltd.,
8, Camac Street,
Calcutta 700 017.

9. Smt. Indu Jain,
Shantiniketan, 12th Floor,
8, Camac Street,
Calcutta 700 017.

10. Shri Samir Kumar Jain,
Shantiniketan, 14th Floor,
8, Camac Street,
Calcutta 700 017.

11. Smt. Meera Jain,
Shantiniketan, 14th Floor,
8, Camac Street,
Calcutta 700 017.

12. Camac Commercial Co. Ltd.,
33/1, Netaji Subhas Road,
345, Marshall House,
Calcutta 700 001.

13. Arth Udyog Ltd.,
Shantiniketan, 14th Floor,
8, Camac Street,
Calcutta 700 017.

I, Tehemton Peshotan Pithavala, hereby declare that the particulars given above are true to the best of my knowledge and belief.

T.P. Pithavala
Signature of Publisher.

Date : 1-3-1984.

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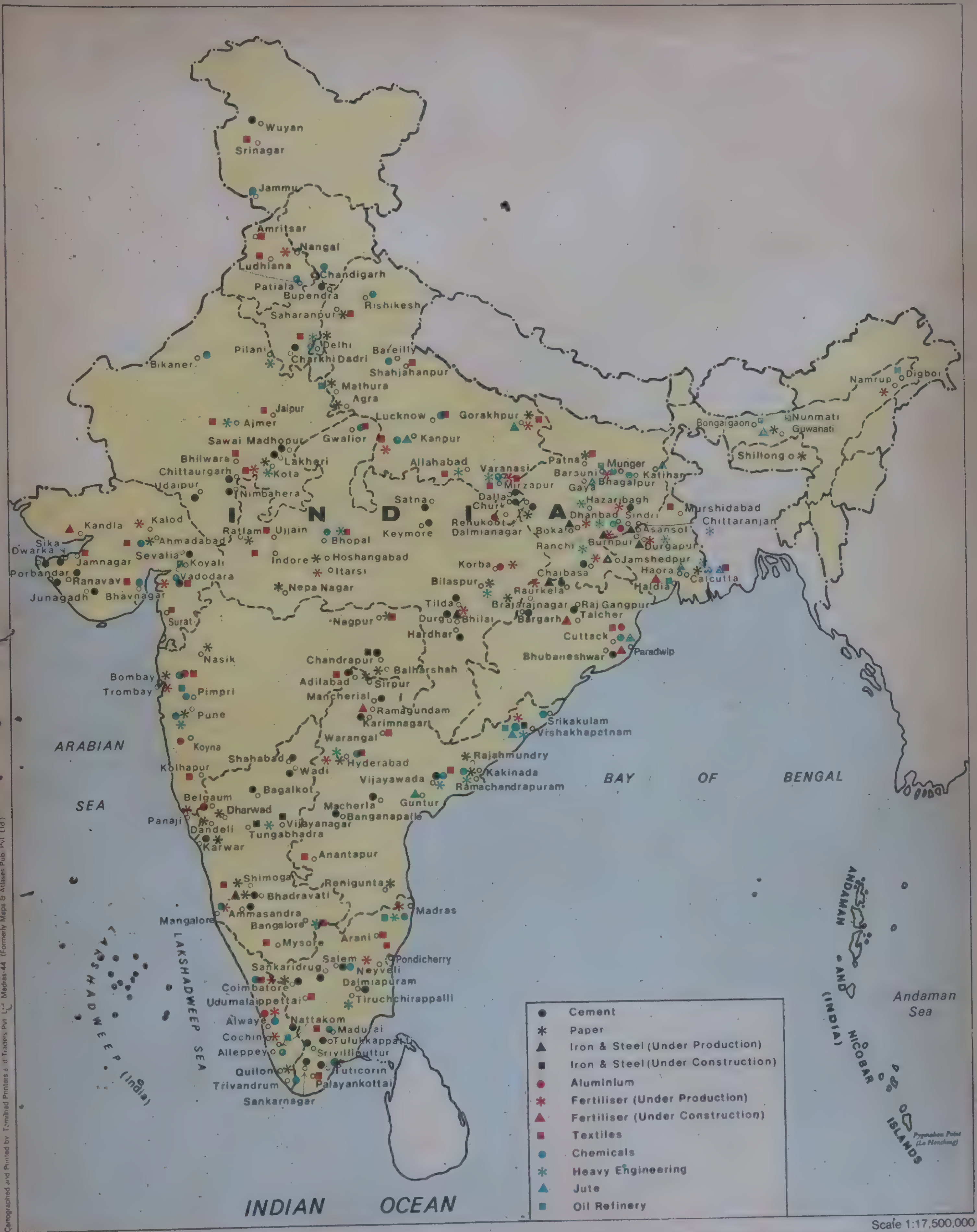

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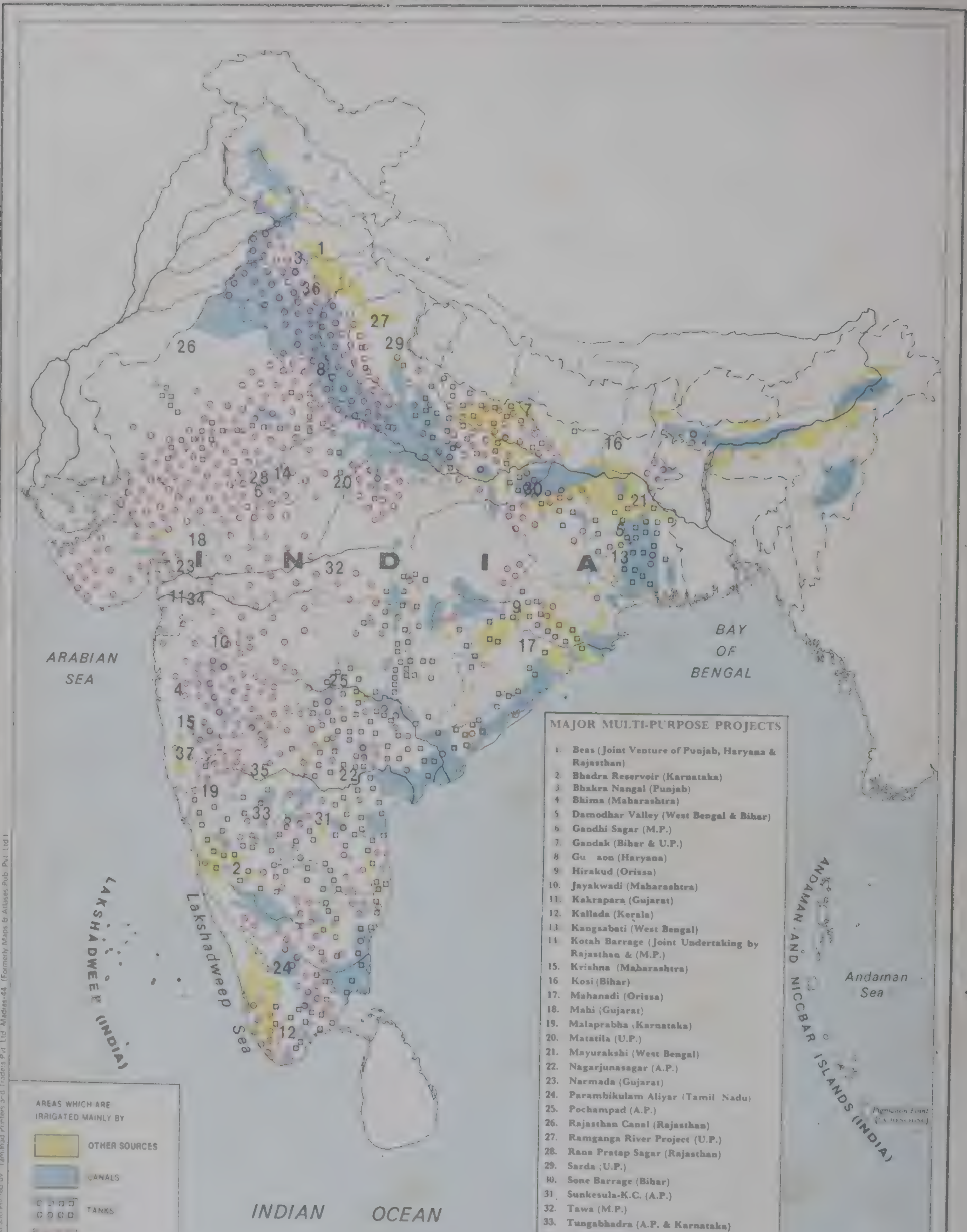
INDIA-IRRIGATION



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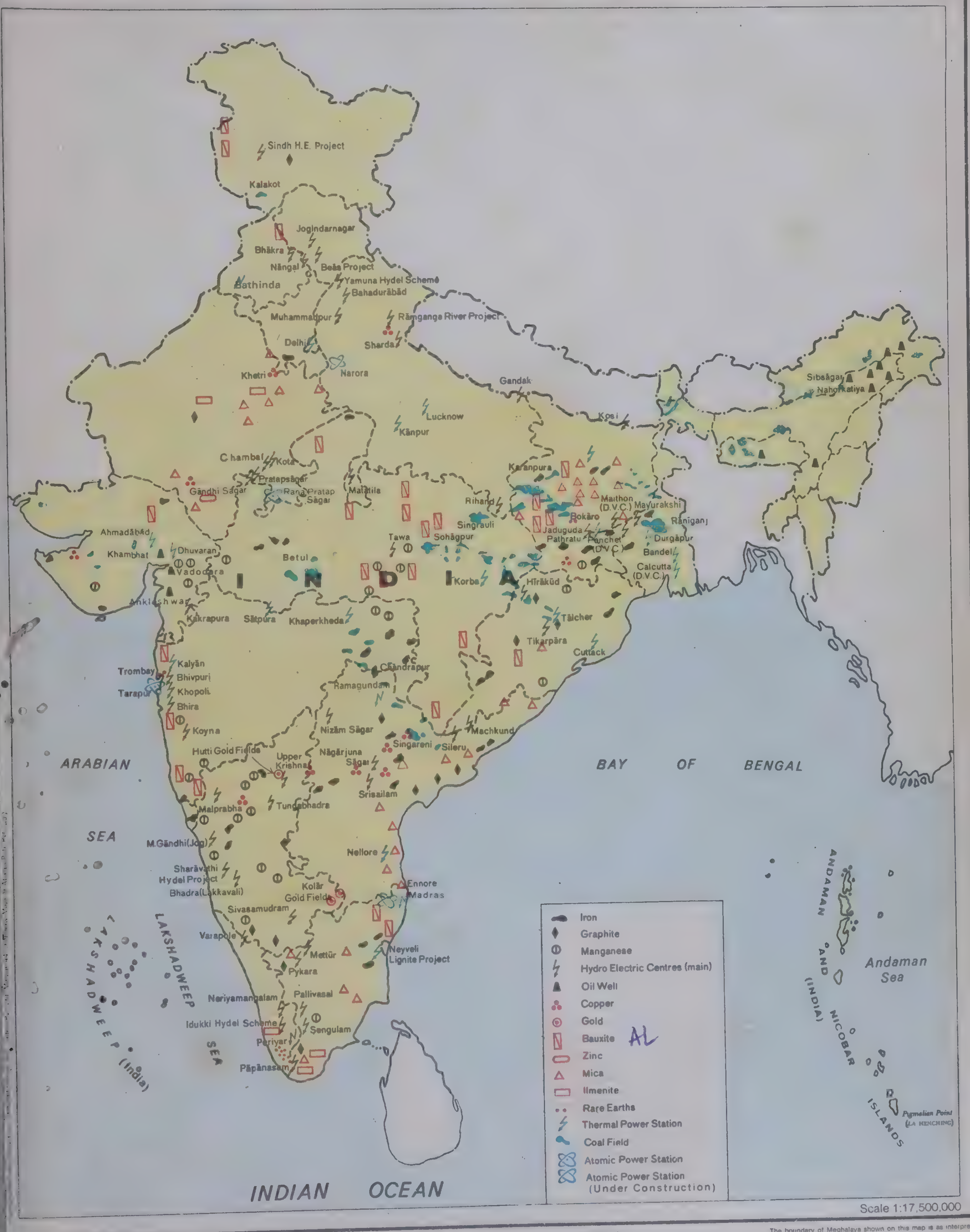

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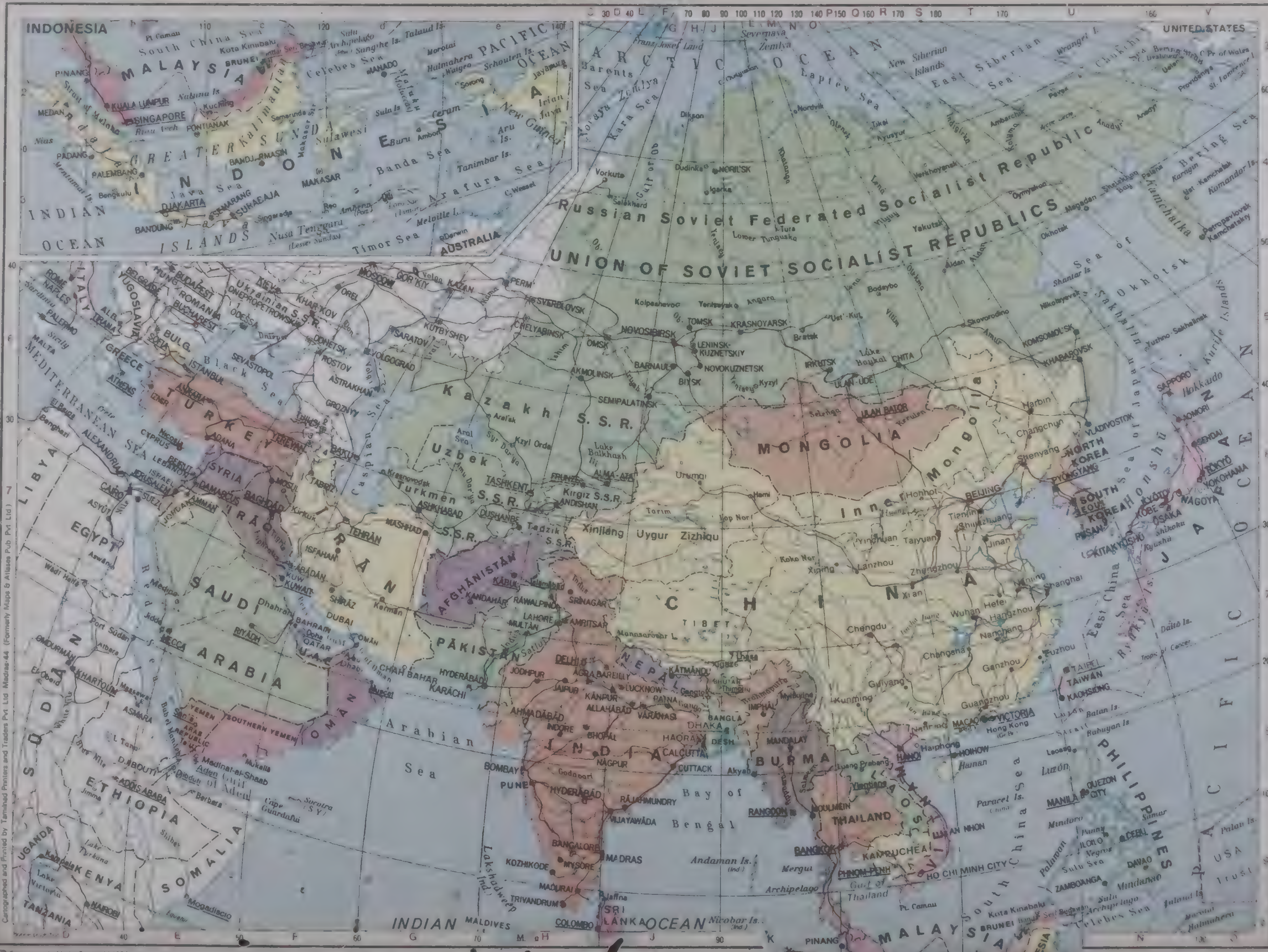

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1 Moldavian S.S.R
2 Georgian S.S.R
3 Armenian S.S.R
4 Azerbaijan S.S.R

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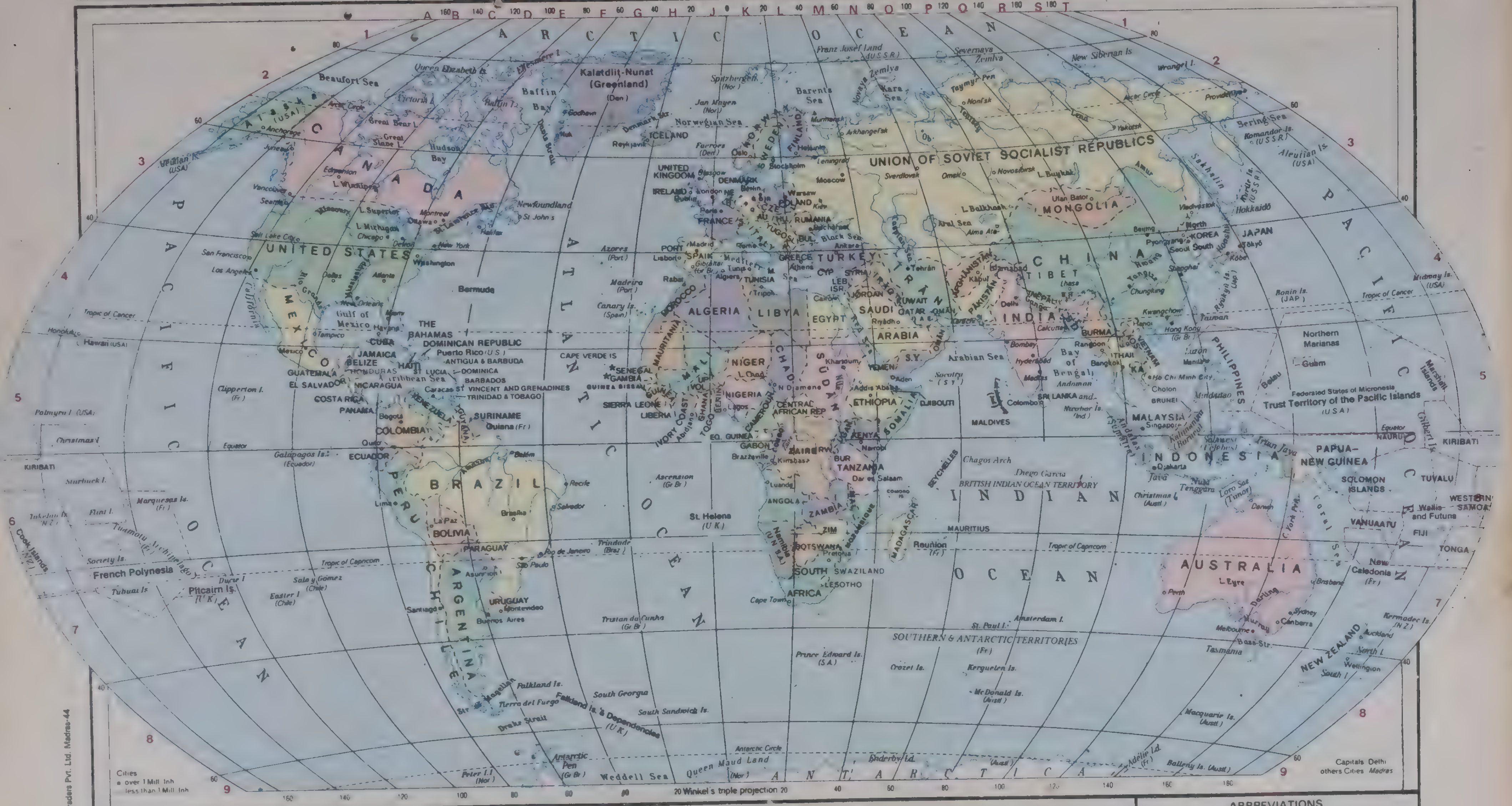

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Zaire
Zambia
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Antigua & Barbuda
Brunei
Byelorussia
St Kitts & Nevis
Ukraine

Note: Byelorussia and Ukraine are also full members

ABBREVIATIONS

A	ALBANIA
AU	AUSTRIA
B	BELGIUM
BD	BANGLADESH
BH	BHUTAN
BUL	BULGARIA
BUR	BURUNDI
CO	CONGO
CYP	CYPRUS
CZE	CZECHOSLOVAKIA
G D R	GERMAN DEMOCRATIC REPUBLIC
F R.G	FEDERAL REPUBLIC OF GERMANY
HU	HUNGARY
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S	SWITZERLAND
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UGAN	UGANDA
U.A E	UNITED ARAB EMIRATES
ZIM	ZIMBABWE

1 : 152000000

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★Have been federated as SENEGAMBIA in October 1981

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Osaka 6 O 6
Oslo 7 K 2
Ottawa 7 F 3

Pacific Ocean 7 BC 3-8
Pakistan 6 GH 7
Panaji 1 D 5
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Pondicherry 1 E 6
Porbandar 1 C 4
Portugal 7 J 3
Port Blair 1 H 6
Pune 1 D 5
Punjab 1 DE 2
Pyongyang 6 N 6

Qatar 6 F 7
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Queen Maud Land 7 JK 9
Quito 7 F 6

Rabat 7 J 4
Raichur 1 E 5
Raipur 1 F 4
Rajasthan 1 DE 3
Rajahmundry 1 F 5
Rajkot 1 C 4
Rameswaram 1 E 7
Rampur 1 E 3
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Rangoon 6 K 8
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Reykjavik 7 H 2
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Riyadh 6 E 7
Rumania 7 L 3
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Rwanda 7 L 6

Sakhalin 6 P 4-5
Salween R 6 K 7-8
Salem 1 E 6
Sana 6 E 8
San Francisco 7 C 4
Sangli 1 D 5
Santiago 7 EF 7
Sao Tome & Principe 7 K 6
Satluj R 6 H 7
Saudi Arabia 6 E 7
Sea of Japan 6 OP 5-6
Sea of Okhotsk 6 PQ 4
Senegal 7 HJ 5
Seoul 6 N 6
Seychelles 7 M 6
Shanghai 6 N 6
Shenyang 6 N 5
Shijiaznuang 6 M 6
Shikoku 6 O 6
Shillong 1 H 3
Shimla 1 E 2
Sierra Leone 7 HJ 5
Sikkim 1 G 3
Silchar 1 H 4
Silvassa 1 D 4
Singapore 6 B 2
Society Islands 7 B 6
Sholapur 1 E 5
Solomon Islands 7 S 6
Somalia 7 M 5
Samoa Western 7 T 6
South Africa 7 L 7
South China Sea 6 M 8 9
South Georgia 7 H 8
South Sandwich Islands 7 H 8
South Yemen 6 EF 8
Spain 7 J 4
Sri Lanka 6 H 9
Srinagar 1 DE 2
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Stockholm 7 K 3
Strait of Malacca 6 AB 2
Sudan 7 L 5
[illegible] 6 D 6
Surat 1 D 4
[illegible] 7 G 5
Swaziland 7 L 7
Sweden 7 K 2-3
Switzerland 7 K 3
Sydney 7 R 7
Syria 6 DE 6

Tadzik Soviet Socialist Republic 6 [illegible]
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Timor Sea 6 D 4
Timor 6 D 3
Tiruchchirappalli 1 E 7
Togo 7 JK 5
Tokelau Islands 7 T 6
Tokyo 6 P 6
Tomsk 6 J 4
Tonga 7 T 7
Trinidad & Tobago 7 F 5
Tripoli 7 K 4
Tripura 1 H 4
Tristan da Cunha 7 HJ 7
Trivandrum 1 E 7
Tuamotu Archipelago 7 BC 6-7
Tubuai Islands 7 B 7
Tunisia 7 K 4
[illegible] 7 K 4
Turkey 6 CE 6
Turkmen Soviet Socialist Republic 6 FG 6
Tuticorin 1 E 7
Tuvalu 7 S 6

U.A.E. 6 F 7
Udaipur 1 D 4
Uganda 7 L 6
U.K. (Britain) 7 J 3
Ulan Bator 6 LM 5
Ulan Ude 6 L 4
Upper Volta 7 J 5
Ural R 6 F 4
Uruguay 7 G 7
Urumqi 6 J 5
U.S.A. 7 DE 4
U.S.S.R. 7 MO 3
Uttar Pradesh 1 EF 3
Uzbek Soviet Socialist Republic 6 FG 5

Vadodara 1 D 4
Vanuatu 7 RS 6
Varanasi 1 F 3
Venezuela 7 F 5
Verkhoyansk 6 O 3
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Vientiane 6 L 8
Vietnam 6 L 8
Vijayawada 1 F 5
Visakhapatnam 1 F 5
Vladivostok 6 O 5
Volga R 6 E 4-5

Warsaw 7 L 3
Warangal 1 E 5
Washington 7 F 4
Wellington 7 S 8
Western Samoa 7 ST 6
White Nile R 6 D 8
Wuhan 6 M 6

Xi'an 6 L 6
Xining 6 L 6
Xinjiang 6 HJ 5

Yangtze Kiang R 6 LM 6
Yemen 6 E 8
Yerevan 6 E 6
[illegible]
Yokohama 6 OP 6
Yugoslavia 7 KL 3

Zaire 7 KL 6
Zambia 7 L 6
Zimbabwe 7 L 6
Zhengzhou 6 M 6

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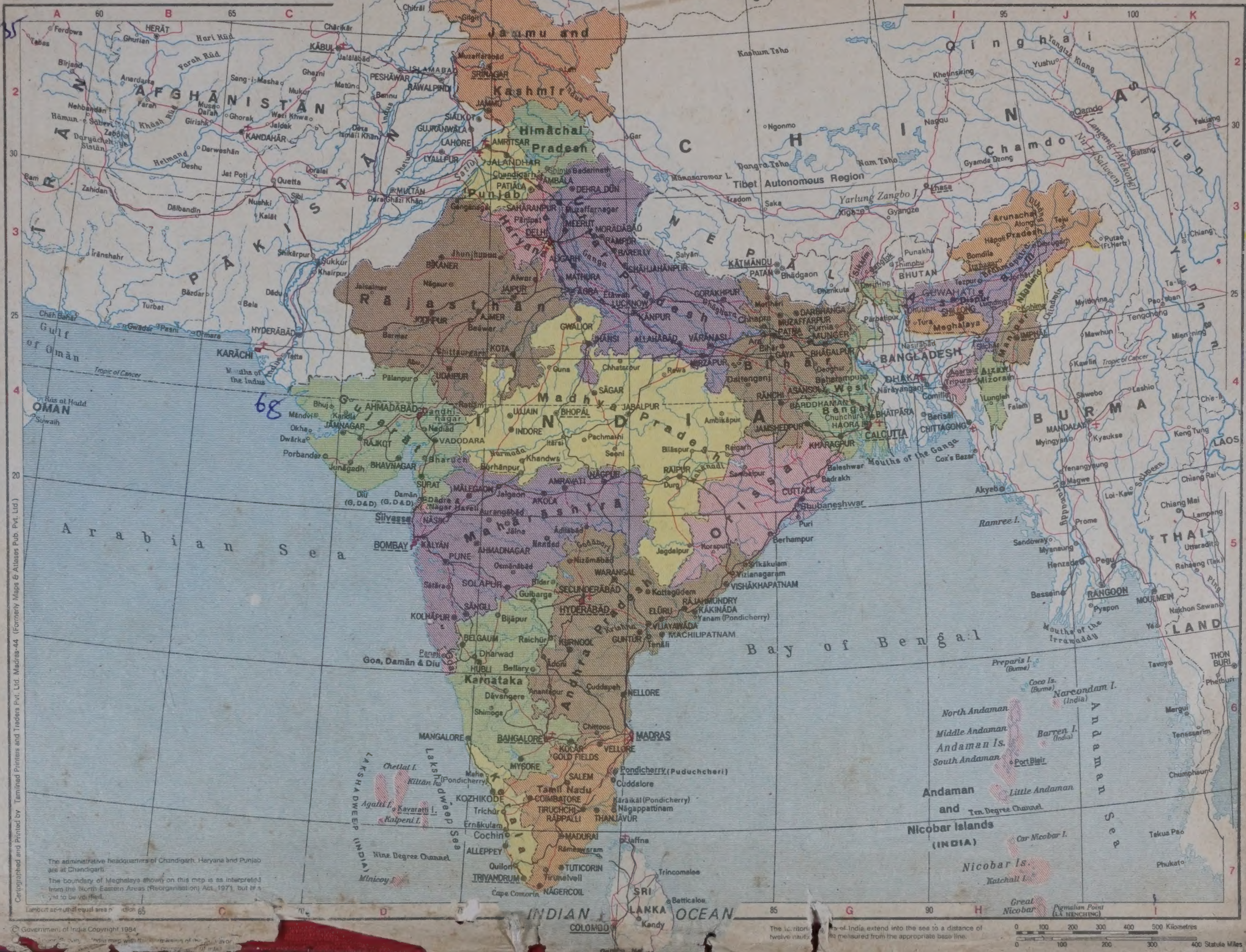

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Lambert azimuthal equal area p ction

The territori rs of India extend into the sea to a distance of twelve nautic es measured from the appropriate base line.

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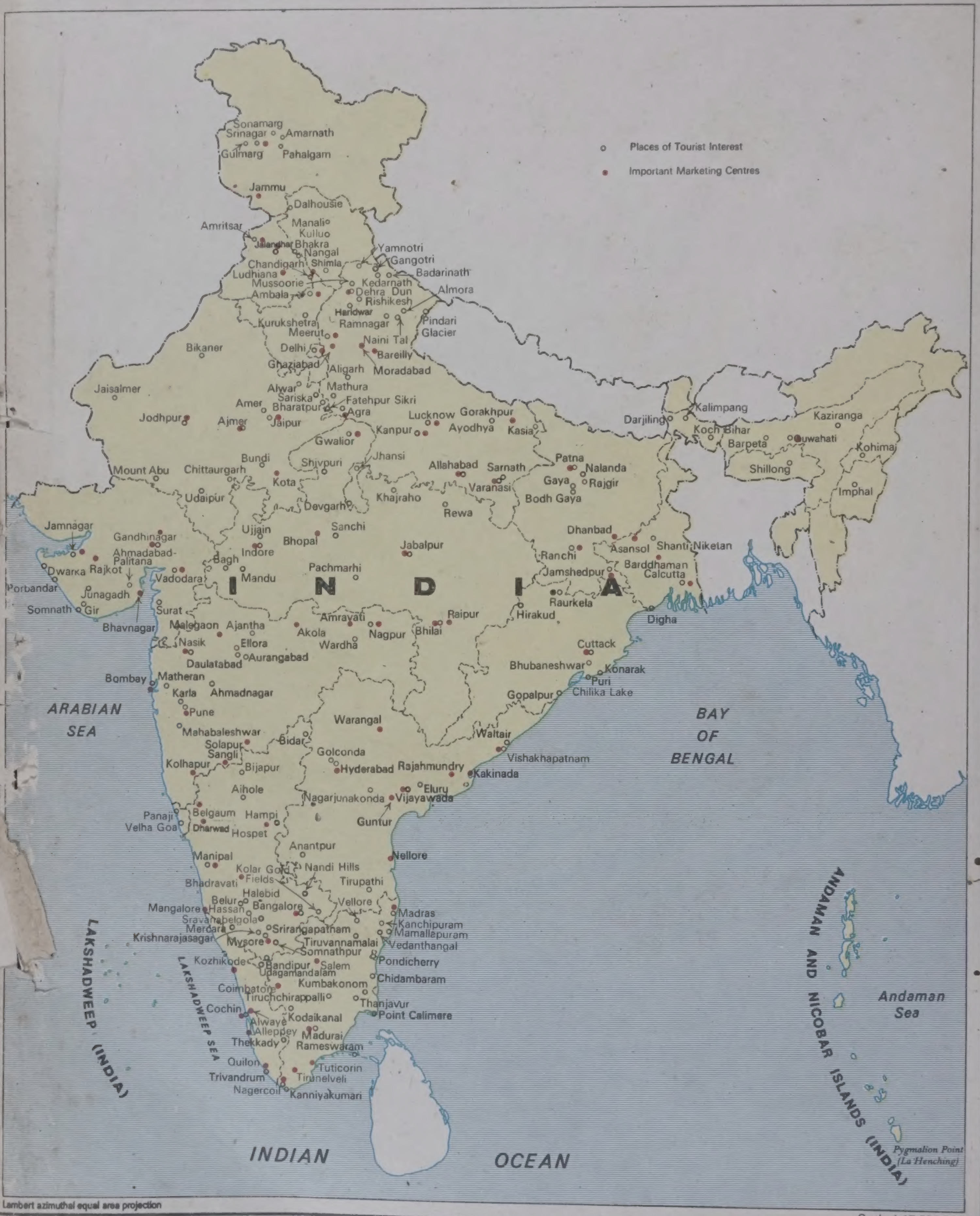

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